

PRODUCT SPECIFICATIONS

### Z-SERIES™ DESIGNED TO FIT. FAST.



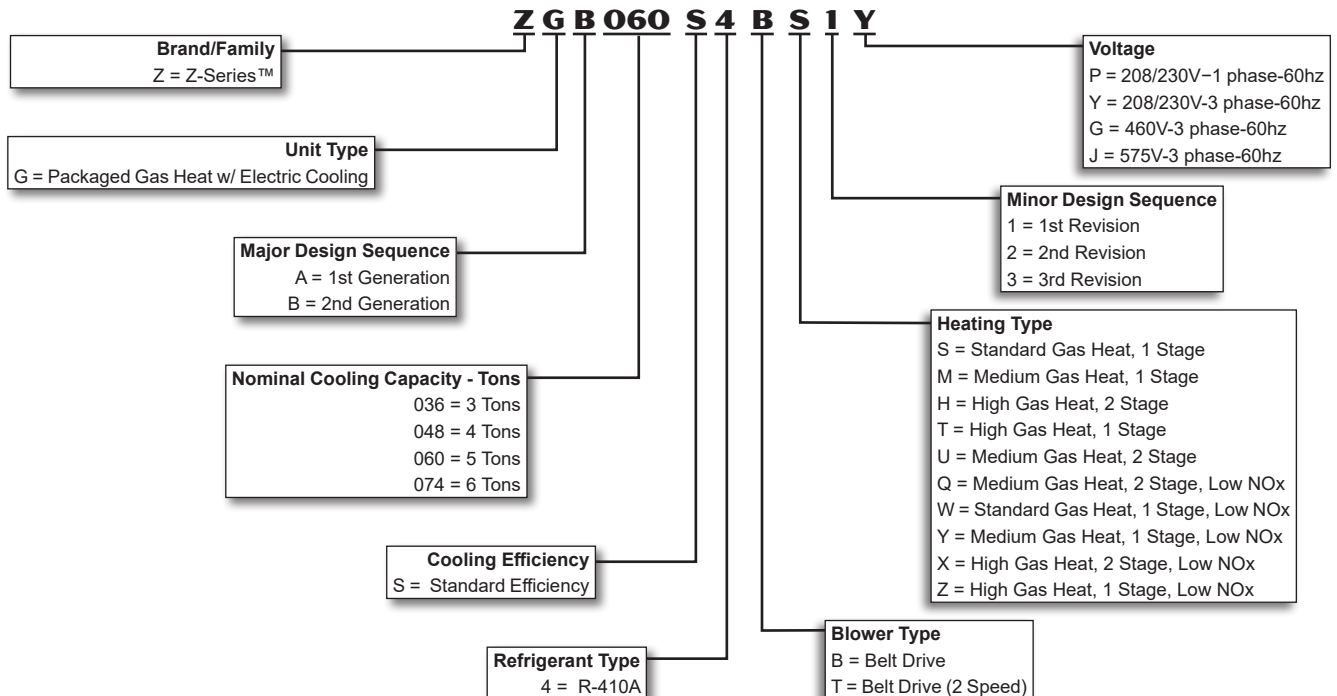
**ASHRAE 90.1  
COMPLIANT**

**3 to 6 Tons**

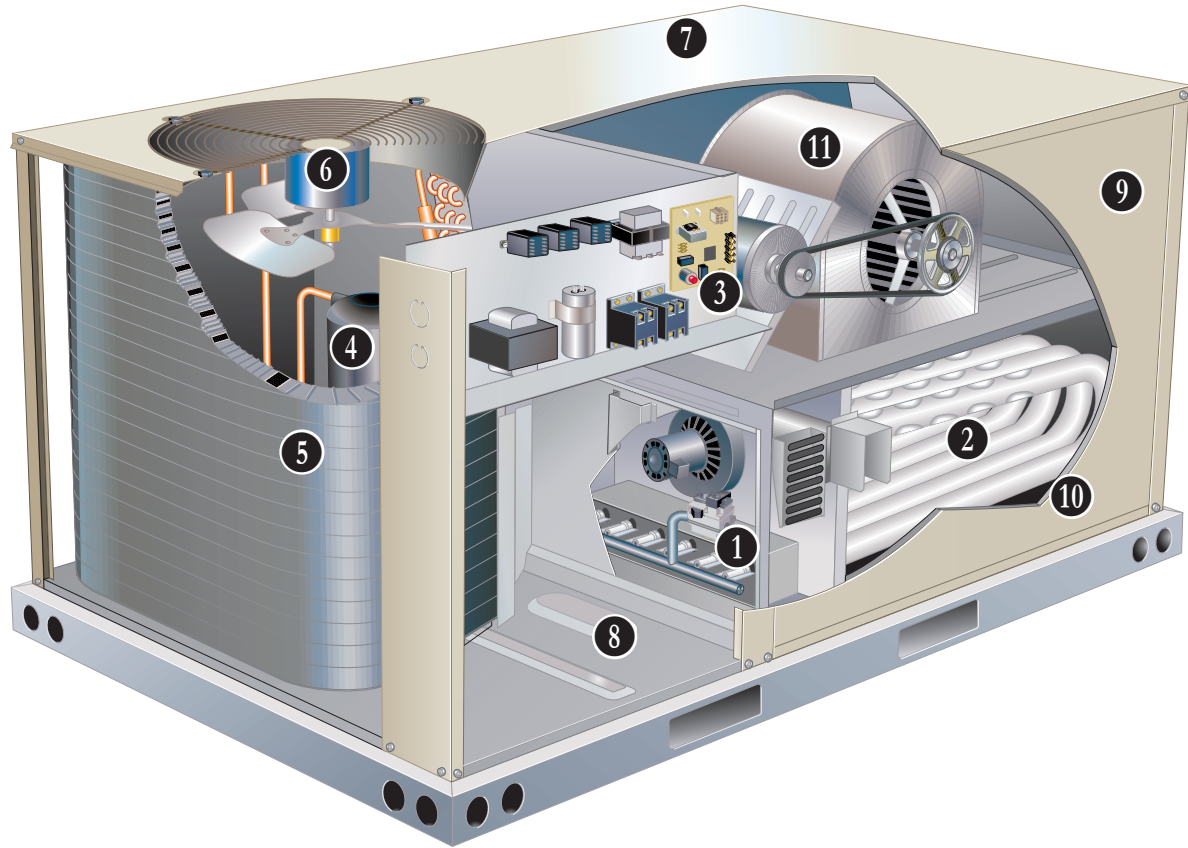
**Net Cooling Capacity – 34,600 to 68,000 Btuh**

**Gas Input Heat Capacity – 65,000 to 150,000 Btuh**

**MODEL NUMBER IDENTIFICATION**



## FEATURES AND BENEFITS



Z-Series™ rooftop units from Allied are the new standard for cost efficient, reliable rooftop units built for long-lasting performance that can significantly improve indoor environments.

Z-Series™ rooftop units feature:

- **Quick and Easy Retrofit** - Fast installation for replacement of many existing rooftop units - fits high volume competitor's roof curbs.
- **R-410A Refrigerant** - Environmentally friendly.
- **Single Speed Scroll Compressor** - Furnished on 036 through 060 models.
- **Two-Stage Scroll Compressor** - Furnished on all 074 models. Allows rooftop units to deliver just the necessary amount of cooling needed to meet the space's demand
- **Eco-Last™ Coil System** - Smaller, lighter condenser coil.
- **High Pressure Switch** - Protects compressor.
- **Belt Drive Blower Motor** - To maximize air performance. Two-Speed belt drive blower on ZGB074 models.
- **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 Drain Pan** - Provides application flexibility, durability, improved serviceability and meets ASHRAE 62.1 requirements for drain pan slope.

## FEATURES AND BENEFITS

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### APPROVALS

AHRI Certified to AHRI Standard 210/240-2008 (3 - 5 ton models) and AHRI Standard 340/360-2007 (6 ton models). CSA listed.

CSA listed.

Units are Certified by CSA.

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

All models are ASHRAE 90.1 compliant.

All models meet DOE 2018 energy efficiency standards.

ISO 9001 Registered Manufacturing Quality System.

Models equipped with low NOx gas heat meet the California Nitrogen Oxides (NOx) Standards that apply in the South Coast Air Quality Management District and the San Francisco Bay Area Air Quality Management District.

#### California Only

If installed in South Coast Air Quality Management District (SCAQMD) only:

This gas unit does not meet the SCAQMD Rule 1111 NOx emission limit (14 ng/J), and

thus is subject to a mitigation fee of up to \$450. This furnace is not eligible for the Clean Air Furnace Rebate Program: [www.CleanAirFurnaceRebate.com](http://www.CleanAirFurnaceRebate.com).

If installed in San Joaquin Valley Air Pollution Control District (SJVAPCD) only:

This gas unit does not meet the SJVAPCD Rule 4905 NOx emission limit (14 ng/J), and thus is subject to a mitigation fee of up to \$450.

### WARRANTY

Limited ten years aluminized heat exchanger.

Limited five years on compressors.

Limited three years on the Eco-Last™ Coil System.

Limited five years Optional High Performance Economizers.

Limited one year all other covered components.

### HEATING SYSTEM

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

#### 2 Heat Exchanger

Tubular construction, aluminized steel, life cycle tested.

#### 3 Electronic Pilot Ignition

Electronic spark igniter provides positive direct ignition of burners on each operating cycle. The system permits main gas valve to stay open only when the burners are proven to be lit. Should a loss of flame occur, the gas valve closes, shutting off the gas to the burners. Ignition module has 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.

#### Low NO<sub>x</sub> Models

All models are available in low NO<sub>x</sub> (40 ng/J) versions.

## FEATURES AND BENEFITS

### **HEATING SYSTEM** **(continued)**

#### **Required Selections**

##### **Gas Input Choice - Order one:**

- Standard Gas Heat (1 Stage)  
65,000 Btuh
- Medium Gas Heat (1 Stage)  
108,000 Btuh
- Medium Gas Heat (2 Stage)  
81,000/108,000 Btuh
- High Gas Heat (1 Stage)  
150,000 Btuh
- High Gas Heat (2 Stage)  
113,000/150,000 Btuh

##### **Standard or Low NO<sub>x</sub>**

Specify conventional gas heat or Low NO<sub>x</sub> (40 ng/J) option.

#### **Options/Accessories**

##### **Field Installed**

##### **LPG/Propane Kits**

Conversion kit to field change over units from Natural Gas to LPG/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.

### **COOLING SYSTEM**

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

System can operate from 35°F to 125°F without any additional controls.

##### **R-410A Refrigerant**

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

Unit is factory pre-charged with refrigerant. See Specifications Table.

#### **4 Single Speed Scroll Compressor (036 through 060 Models)**

Resiliently mounted on rubber grommets for quiet operation.

Scroll compressors for high performance, reliability and quiet operation.

#### **Copeland Scroll Ultra Tech™ Two-Stage Compressor (074 Models)**

Two-stage scroll compressors for increased part load efficiency, high performance, reliability and quiet operation.

Resiliently mounted on rubber grommets for quiet operation.

##### **Compressor Crankcase Heater**

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

##### **Refrigerant Metering Orifice (036 to 060 Models)**

Accurately meters refrigerant in system.

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

##### **Thermal Expansion Valve (074 Models)**

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.

Automatic reset.

##### **Filter/Drier**

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

#### **5 Eco-Last™ Coil System**

Condenser coil features lightweight, all aluminum brazed fin construction.

Constructed of three components:

a flat extrusion tube, fins in-between the flat extrusion tube and two refrigerant manifolds.

Eco-Last™ Coil System Features:

- Improved heat transfer performance due to high primary surface area (flat tubes) versus secondary surface (fins).
- Smaller internal volume (reduced refrigerant charge).
- High durability (all aluminum construction).
- Fewer brazed joints.
- Compact design (reduces unit weight).
- Easy maintenance/cleaning.

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

##### **Evaporator Coil**

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

##### **Condensate Drain Pan**

Plastic pan, sloped to meet drainage requirements of ASHRAE 62.1.

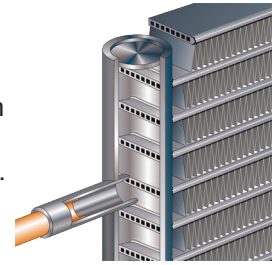
End drain connection.

#### **6 Outdoor Coil Fan Motor**

Thermal overload protected, totally enclosed, permanently lubricated bearings, shaft down, fan guard mount.

##### **Outdoor Coil Fan Guard**

PVC coated fan guard furnished.



## FEATURES AND BENEFITS

### **COOLING SYSTEM** **(continued)**

#### **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 PVC.

##### **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 0°F. A crankcase heater must be installed on the compressor.

### **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.

##### **Airflow Choice**

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

#### **8 Power Entry**

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

Optional Bottom Power 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.

##### **Access Panels**

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

#### **Options/Accessories**

##### **Factory Installed**

##### **Corrosion Protection**

A completely flexible immersed coating with an electro-deposited 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

Outdoor Corrosion Protection:

- Coated coil

##### **Field Installed**

##### **Coil/Hail Guards**

Constructed of heavy gauge steel, painted to match cabinet, helps protect outdoor coil from damage on all three sides of cabinet.

### **CONTROLS**

#### **Unit Control**

All control voltage is provided via a 24V (secondary) transformer with inline fuse protection.

##### **Heat/Cool Staging**

Capable of up to 2 heat / 2 cool staging with a thermostat.

##### **Night Setback Mode**

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

#### **Smoke Detectors**

*NOTE - Smoke detectors are not available and must be field provided by installer.*

## FEATURES AND BENEFITS

### **11** BLOWER

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

#### **Motor**

Overload protected, equipped with ball bearings. Belt drive motors are offered on all models and are available in several different sizes to maximize air performance.

Two-speed belt drive motor (low static/high static) is available on 074 models.

#### **Supply Air Blower**

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

Equipped with ball bearings and adjustable pulley (allows speed change).

#### **Required Selections**

#### **Supply Air Blower**

Order blower motor horsepower and drive kit number required when base unit is ordered, see Drive Kit Specifications Table.

### **INDOOR AIR QUALITY**

#### **Air Filters**

Disposable 2 inch filters furnished as standard.

#### **Options/Accessories**

#### **Field Installed**

#### **Indoor Air Quality (CO<sub>2</sub>) Sensor**

Monitors CO<sub>2</sub> levels adjusts economizer dampers as needed for Demand Control Ventilation.

### **ELECTRICAL**

#### **Marked & Color-Coded Wiring**

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

#### **Electrical Plugs**

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

#### **Required Selections**

#### **Voltage Choice**

Specify when ordering base unit.

**ECONOMIZER OPTIONS**

**Factory or Field Installed**

**Economizer (Downflow or Horizontal)  
(Standard and High Performance Common Features)**

Outdoor Air Hood is furnished.

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. Hood is furnished.

Single Sensible Temperature Control is furnished with the economizer

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

Demand Control Ventilation (DCV) ready using optional CO<sub>2</sub> sensors.

*NOTE - Horizontal Economizer is field installed only.*

**Standard Economizer Features (Not for Title 24)**

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

**Standard Economizer Control Module**

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



**Economizer Controls:**

- Damper Minimum Position  
- Can be set lower than traditional minimum air requirements resulting in cost savings.
- IAQ Sensor - Signals dampers to modulate and maintain 55°F when CO<sub>2</sub> is higher than the CO<sub>2</sub> setpoint.
- Demand Control Ventilation (DCV) LED - A steady green Demand Control Ventilation LED indicates the IAQ reading is higher than setpoint and requires more fresh air.
- Free Cool LED - A steady green LED indicates outdoor air is suitable for free cooling.

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

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

**High Performance Economizer Features**

Approved for California Title 24 building standards.

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

ASHRAE 90.1-2010 compliant. Gear-driven action, high torque 24-volt fully-modulating spring return damper motor, return air and outdoor air dampers, plug-in connections to unit, nylon bearings, enhanced neoprene blade edge seals and flexible stainless steel jamb seals to minimize air leakage.

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

**High Performance Economizer Control Module**

Module provides inputs and outputs to control economizer based on



parameter settings.

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

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

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

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

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

**Main Menu Structure:**

- STATUS (economizer and system operation status)
- SETPOINTS (settings for various setpoint parameters)
- SYSTEM SETUP (settings/information about the system)
- ADVANCED SETUP (freeze protection, CO<sub>2</sub> settings, stage 3 delay and additional calibration settings)
- CHECKOUT (damper positions)
- ALARMS (output signal that can be configured for remote alarm monitoring)

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

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

## **OPTIONS / ACCESSORIES**

### **ECONOMIZER OPTIONS**

#### **(continued)**

#### **Field Installed**

#### **Single Enthalpy Temperature Control**

##### **(Not for Title 24)**

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

### **EXHAUST OPTIONS**

#### **Field Installed**

#### **Power Exhaust Fan - Downflow or Horizontal**

Installs external to unit for applications 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 12 in. diameter with 5 fan blades. 1/2 hp motor.

### **OUTDOOR AIR OPTIONS**

#### **Field Installed**

#### **Outdoor Air Dampers - Downflow**

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

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

Manual model features a slide damper. Maximum mixed air temperature in cooling mode: 100°F.

Outdoor Air Hood is furnished.

### **ROOF CURBS**

#### **Hybrid Roof Curbs, Downflow**

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

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

Curb can also be fastened together with furnished hardware.

Available in 8, 14, 18, and 24 inch heights.

#### **Adaptor Curbs (not shown)**

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

### **CEILING DIFFUSERS**

#### **Ceiling Diffusers (Flush and Step-Down)**

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

#### **Transitions (Supply and Return)**

*NOTE - Ceiling Diffuser Transitions are not furnished and must be field fabricated.*



## OPTIONS / ACCESSORIES

Item	Catalog No.	Unit Model No.				
		ZGB 036	ZGB 048	ZGB 060	ZGB 074	
<b>COOLING SYSTEM</b>						
Condensate Drain Trap	PVC - C1TRAP20AD2	<b>76W26</b>	X	X	X	X
	Copper - C1TRAP10AD2	<b>76W27</b>	X	X	X	X
Drain Pan Overflow Switch	Z1SNSR90A1	<b>99W59</b>	X	X	X	X
Low Ambient Kit	Z1SNSR33A-1	<b>99W67</b>	X	X	X	X
<b>HEATING SYSTEM</b>						
Gas Heat Input	Standard 1-Stage - 65 kBtuh input	Factory	O	O	O	O
	Medium 1-Stage - 108 kBtuh input	Factory	O	O	O	O
	Medium 2-Stage - 65/108 kBtuh input	Factory	O	O	O	O
	High 1-Stage - 150 kBtuh input	Factory		O	O	O
	High 2-Stage - 113/150 kBtuh input	Factory		O	O	O
LPG/Propane Conversion Kits	For 1-Stage models - C1PROP10AP3	<b>14N20</b>	X	X	X	X
	For 2-Stage models - C1PROP20AP3	<b>14N21</b>	X	X	X	X
Vertical Vent Extension Kit	C1EXTN20FF1	<b>31W62</b>	X	X	X	X
<b>BLOWER - SUPPLY AIR</b>						
Motors	Belt Drive - 0.75 hp (208/230V-1ph) Standard Efficiency	Factory	O	O	O	
	Belt Drive - 1 hp (208/230V, 460V, 575V-3ph) Standard Efficiency	Factory	O	O	O	
	Belt Drive - 1.5 hp (208/230V-1ph or 3 ph, 460V, 575V-3ph) Standard Efficiency	Factory	O	O	O	<sup>3</sup> O
	Belt Drive - 2 hp (208/230V, 460V, 575V-3ph) Standard Efficiency	Factory				<sup>3</sup> O
	Belt Drive - 2 hp (208/230V, 460V, 575V-3ph) (2 Speed)	Factory				<sup>4</sup> O
Drive Kits See Blower Data Tables for selection	Kit #Z01 - 678-1035 rpm	Factory	O			
	Kit #Z02 - 803-1226 rpm	Factory		O		
	Kit #Z03 - 906-1383 rpm	Factory			O	
	Kit #Z04 - 964-1471 rpm	Factory	O			
	<sup>1</sup> Kit #Z05 - 1098-1490 rpm	Factory		O		
	<sup>1</sup> Kit #Z06 - 1262-1634 rpm	Factory			O	
	Kit #ZAA02 - 632-875 rpm	Factory				O
	Kit #ZAA03 - 798-1105 rpm	Factory				O
<sup>2</sup> Kit #ZAA04 - 921-1226 rpm	Factory				O	
<b>CABINET</b>						
Coil/Hail Guards	Z1GARD52A-1	<b>12X19</b>	X	X		
	Z1GARD52AT1	<b>12X20</b>			X	X
Corrosion Protection		Factory	O	O	O	O
<b>ELECTRICAL</b>						
Voltage 60 hz	208/230V - 1 phase	Factory	O	O	O	
	208/230V - 3 phase	Factory	O	O	O	O
	460V - 3 phase	Factory	O	O	O	O
	575V - 3 phase	Factory	O	O	O	O
Bottom Power Entry Kit	Z1PEKT01A-1	<b>98W08</b>	X	X	X	X

<sup>1</sup> 1.5 hp blower motor is required with the ZAA05 and ZAA06 drive kits.

<sup>2</sup> 2 hp blower motor is required with the ZAA04 drive kit.

<sup>3</sup> 074S4B models only.

<sup>4</sup> 074S4T models only.

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	Catalog No.	Unit Model No.				
		ZGB 036	ZGB 048	ZGB 060	ZGB 074	
<b>ECONOMIZERS</b>						
<b>Standard Economizer With Outdoor Air Hood (Not for Title 24)</b>						
Standard Economizer (Downflow) Includes Barometric Exhaust Dampers and Exhaust Hood	Z1ECON30A-2	14D94	OX	OX	OX	OX
Standard Economizer (Horizontal) Includes Barometric Exhaust Dampers and Exhaust Hood	Z1ECON16A-2	14D92	X	X	X	X
<b>Standard Economizer Controls (Not for Title 24)</b>						
Single Enthalpy Control	C1SNSR64FF1	53W64	X	X	X	X
<b>High Performance Economizer With Outdoor Air Hood (Approved for California Title 24 Building Standards / AMCA Class 1A Certified)</b>						
High Performance Economizer (Downflow) Includes Barometric Exhaust Dampers and Exhaust Hood	Z1ECON32A-2	14D95	OX	OX	OX	OX
High Performance Economizer (Horizontal) Includes Barometric Exhaust Dampers and Exhaust Hood	Z1ECON33A-2	14D93	X	X	X	X
<b>High Performance Economizer Controls (Not for Title 24)</b>						
Single Enthalpy Control	C1SNSR61FF1	11G21	X	X	X	X
<b>OUTDOOR AIR</b>						
<b>Outdoor Air Dampers With Outdoor Air Hood</b>						
Motorized	Z1DAMP21A-2	15D19	X	X	X	X
Manual	Z1DAMP11A-2	15D20	X	X	X	X
<b>POWER EXHAUST FAN</b>						
Standard Static (Downflow)	208/230V-1 or 3ph - Z1PWRE10A-1P	21E01	X	X	X	X
	460V-3ph - Z1PWRE10A-1G	23E01	X	X	X	X
Standard Static (Horizontal)	208/230V-1 or 3ph - Z1PWRE15A-1P	24E01	X	X	X	X
	460V-3ph - Z1PWRE15A-1G	28E01	X	X	X	X
575V Transformer Kit	575V-3ph - Z1TRFM20A-1J	59E02	X	X	X	X
NOTE - Order 575V Transformer Kit with 208/230V Power Exhaust Fan for 575V applications.						
<b>INDOOR AIR QUALITY</b>						
<b>Indoor Air Quality (CO<sub>2</sub>) Sensors</b>						
Sensor - Wall-mount, off-white plastic cover with LCD display	C0SNSR50AE1L	77N39	X	X	X	X
Sensor - Wall-mount, black plastic case, no display, rated for plenum mounting	C0SNSR53AE1L	87N54	X	X	X	X
CO <sub>2</sub> Sensor Duct Mounting Kit - for downflow applications	C0MISC19AE1	85L43	X	X	X	X
Aspiration Box - for duct mounting non-plenum rated CO <sub>2</sub> sensor (77N39)	C0MISC16AE1	90N43	X	X	X	X
<b>ROOF CURBS</b>						
<b>Hybrid Roof Curbs, Downflow</b>						
8 in. height	Z1CURB70A-1	11F76	X	X	X	X
14 in. height	Z1CURB71A-1	11F77	X	X	X	X
18 in. height	Z1CURB72A-1	11F78	X	X	X	X
24 in. height	Z1CURB73A-1	11F79	X	X	X	X
<b>CEILING DIFFUSERS</b>						
Step-Down - Order one	RTD9-65S	13K60	X	X	X	
	RTD11-95S	13K61				X
Flush - Order one	FD9-65S	13K55	X	X	X	
	FD11-95S	13K56				X

NOTE - Ceiling Diffuser Transitions are not furnished and must be field fabricated.

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

O - Configure to Order (Factory Installed)

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## SPECIFICATIONS

General Data		Nominal Tonnage	3 Ton	4 Ton	5 Ton
		Model No.	ZGB036S4B	ZGB048S4B	ZGB060S4B
		Efficiency Type	Standard	Standard	Standard
		Blower Type	Single Speed Belt Drive	Single Speed Belt Drive	Single Speed Belt Drive
<b>Cooling Performance</b>	Gross Cooling Capacity - Btuh		36,200	46,700	58,300
	<sup>1</sup> Net Cooling Capacity - Btuh		35,000	45,500	57,000
	AHRI Rated Air Flow - cfm		1190	1380	1725
	<sup>2</sup> Sound Rating Number (SRN) (dBA)		78	80	78
	Total Unit Power - kW		3.0	4.1	5.1
	<sup>1</sup> SEER (Btuh/Watt)		14.00	14.00	14.00
	<sup>1</sup> EER (Btuh/Watt)		11.70	11.00	11.00
<b>AHRI Reference No. (also see page 14)</b>	208/230V-1 ph		N/A	N/A	N/A
	208/230V-3 ph		N/A	N/A	N/A
	460V-3 ph		N/A	N/A	N/A
	575V-3 ph		N/A	N/A	N/A
<b>Refrigerant</b>	Type		R-410A	R-410A	R-410A
	Charge Furnished		5 lbs. 2 oz.	5 lbs. 4 oz.	7 lbs. 5 oz.
<b>Gas Heating Options - See page 13</b>			<b>Standard (1 Stage) or Medium (1 or 2 Stage)</b>	<b>Standard (1 Stage), Medium (1 or 2 Stage) or High (1 or 2 Stage)</b>	
<b>Compressor Type (one per unit)</b>			Scroll	Scroll	Scroll
<b>Outdoor Coil</b>	Net face area - sq. ft.		15.2	15.2	19.9
	Number of rows		1	1	1
	Fins / inch		23	23	23
<b>Outdoor Coil Fan</b>	Motor HP		(1) 1/4	(1) 1/4	(1) 1/4
	Motor rpm		825	825	825
	Total motor watts		310	310	310
	Diameter (No.) - in.		(1) 22	(1) 22	(1) 22
	Number of blades		4	4	4
	Total air volume - cfm		3700	3700	3700
<b>Indoor Coil</b>	Net face area - sq. ft.		8.40	8.4	10.8
	Tube diameter - in.		3/8	3/8	3/8
	Number of rows		3	3	3
	Fins per inch		14	14	14
	Drain Connection (no. and size) - in.		(1) 1 NPT	(1) 1 NPT	(1) 1 NPT
	Expansion device type		Fixed Orifice	Fixed Orifice	Fixed Orifice
<sup>3</sup> <b>Indoor Blower &amp; Drive Selection</b>	Nominal Motor HP		<sup>4</sup> 0.75 hp, <sup>5</sup> 1 hp, 1.5 hp	<sup>4</sup> 0.75 hp, <sup>5</sup> 1 hp, 1.5 hp	<sup>4</sup> 0.75 hp, <sup>5</sup> 1 hp, 1.5 hp
	Maximum Usable Motor HP		0.86, 1.15 hp, 1.7 hp	0.86, 1.15 hp, 1.7 hp	0.86, 1.15 hp, 1.7 hp
	Available Drive Kits		Kit #ZA01 678-1035 rpm	Kit #ZA02 803-1226 rpm	Kit #ZA03 906-1383 rpm
			Kit #ZA04 964-1471 rpm	<sup>6</sup> Kit #ZA05 1098-1490 rpm	<sup>6</sup> Kit #ZA06 1262-1634 rpm
	Wheel nominal diameter x width - in.		10 x 10	10 x 10	10 x 10
<b>Filters</b>	Type		Disposable		
	Number and size - in.		(4) 14 x 20 x 2		(2) 16 x 20 x 2 (2) 20 x 20 x 2
<b>Electrical Characteristics - 60 Hz</b>			208/230V 1 phase	208/230V, 1 phase	208/230V, 1 phase
			208/230V, 460V & 575V 3 phase	208/230V 460V & 575V 3 phase	208/230V 460V & 575V 3 phase

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

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

<sup>2</sup> Sound Rating Number (SRN) rated in accordance with test conditions included in ANSI/AHRI Standard 270-2008.

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

<sup>4</sup> 0.75 hp motor is only available for 208/230V-1ph applications.

<sup>5</sup> 1 hp blower motor is not available for 208/230V-1ph applications.

<sup>6</sup> 1.5 hp motor is required with the ZA05 and ZA06 drive kits.

**SPECIFICATIONS**
**6 TON**

General Data		Nominal Tonnage	6 Ton	6 Ton	
		Model No.	ZGB074S4B	ZGB074S4T	
		Efficiency Type	Standard	Standard	
		Blower Type	Single Speed Belt Drive	Two Speed Belt Drive	
<b>Cooling Performance</b>	Gross Cooling Capacity - Btuh		68,500	68,500	
	<sup>1</sup> Net Cooling Capacity - Btuh		67,000	67,000	
	AHRI Rated Air Flow - cfm		2200	2200	
	<sup>2</sup> Sound Rating Number (SRN) (dBA)		84	84	
	Total Unit Power - kW		6.0	6.0	
	<sup>1</sup> IEER (Btuh/Watt)		12.7	15.00	
	<sup>1</sup> EER (Btuh/Watt)		11.0	11.0	
<b>AHRI Reference No.</b>			N/A	N/A	
<b>Refrigerant</b>	Type		R-410A	R-410A	
	Charge Furnished		7 lbs. 3 oz.	7 lbs. 3 oz.	
<b>Gas Heating Options - See page 13</b>			<b>Standard (1 stage), Medium (1 or 2 stage) or High (1 or 2 stage)</b>	<b>Standard (1 stage), Medium (1 or 2 stage) or High (1 or 2 stage)</b>	
<b>Compressor Type (one per unit)</b>			Two-Stage Scroll	Two-Stage Scroll	
<b>Outdoor Coil</b>	Net face area - sq. ft.		19.9	19.9	
	Number of rows		1	1	
	Fins / inch		23	23	
<b>Outdoor Coil Fan</b>	Motor HP		(1) 1/3	(1) 1/3	
	Motor rpm		1075	1075	
	Total motor watts		365	365	
	Diameter (No.) - in.		(1) 24	(1) 22	
	Number of blades		3	3	
	Total air volume - cfm		4270	4270	
<b>Indoor Coil</b>	Net face area - sq. ft.		10.8	10.8	
	Tube diameter - in.		3/8	3/8	
	Number of rows		3	3	
	Fins per inch		14	14	
	Drain Connection (no. and size) - in.		(1) 1 NPT	(1) 1 NPT	
	Expansion device type		Balance Port TXV, removable head	Balance Port TXV, removable head	
<b><sup>3</sup> Indoor Blower &amp; Drive Selection</b>	Nominal Motor HP		1.5 hp, 2 hp	2 hp	
	Maximum Usable Motor HP		1.7 hp, 2.3 hp	2.3 hp	
	Available Drive Kits	ZAA02		632-875 rpm	632-875 rpm
		ZAA03		798-1105 rpm	798-1105 rpm
		ZAA04		921-1228 rpm	921-1228 rpm
Wheel nominal diameter x width - in.		15 x 9	15 x 9		
<b>Filters</b>	Type		Disposable	Disposable	
	Number and size - in.		(2) 16 x 20 x 2 (2) 20 x 20 x 2	(2) 16 x 20 x 2 (2) 20 x 20 x 2	
<b>Electrical Characteristics - 60 Hz</b>			208/230V, 460V or 575V – 60 hertz 3 phase	208/230V, 460V or 575V – 60 hertz 3 phase	

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

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

<sup>2</sup> Sound Rating Number (SRN) rated in accordance with test conditions included in ANSI/AHRI Standard 270-2008.

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

### SPECIFICATIONS - STANDARD GAS HEAT - THREE PHASE MODELS

Model No.	036, 048, 060	074	036, 048, 060	074	036, 048, 060	074	048, 060	074	048, 060	074
<b>Heat Input Type</b>	<b>Standard (1 Stage)</b>		<b>Medium (1 Stage)</b>		<b>Medium (2 Stage)</b>		<b>High (1 Stage)</b>		<b>High (2 Stage)</b>	
Input Btuh	65,000		108,000		81,000		150,000		113,000	
1st Stage	65,000		108,000		81,000		150,000		113,000	
2nd Stage	---		---		108,000		---		150,000	
Output Btuh	52,000		86,000		65,000		120,000		90,000	
1st Stage	52,000		86,000		65,000		120,000		90,000	
2nd Stage	---		---		86,000		---		120,000	
Temperature Rise Range - °F	15 - 45	5 - 35	35 - 65	20 - 50	20 - 50	10 - 40	45 - 75	35 - 55	30 - 60	25 - 55
1st stage	15 - 45	5 - 35	35 - 65	20 - 50	20 - 50	10 - 40	45 - 75	35 - 55	30 - 60	25 - 55
2nd Stage	---	---	---	---	35 - 65	20 - 50	---	---	45 - 75	35 - 65
<sup>1</sup> Thermal Efficiency	Standard	80%	80%	80%	80%	80%	80%	80%	80%	80%
Gas Supply Connections	1/2 in. NPT									
Rec. Gas Supply Pressure - Nat./ LPG	7 in.w.g. / 11 in.w.g.									

<sup>1</sup> Thermal Efficiency at full input.

### SPECIFICATIONS - LOW NOX GAS HEAT - SINGLE AND THREE PHASE MODELS

Model No.	036, 048, 060	074	036, 048, 060	074	036, 048, 060	074	048, 060	074	048, 060	074
<b>Heat Input Type</b>	<b>Standard (1 Stage)</b>		<b>Medium (1 Stage)</b>		<b>Medium (2 Stage)</b>		<b>High (1 Stage)</b>		<b>High (2 Stage)</b>	
Input Btuh	65,000		108,000		81,000		150,000		113,000	
1st Stage	65,000		108,000		81,000		150,000		113,000	
2nd Stage	---		---		108,000		---		150,000	
Output Btuh	52,000		87,000		66,000		121,000		92,000	
1st Stage	52,000		87,000		66,000		121,000		92,000	
2nd Stage	---		---		87,000		---		121,000	
Temperature Rise Range - °F	15 - 45	5 - 35	35 - 65	20 - 50	20 - 50	10 - 40	45 - 75	35 - 65	30 - 60	25 - 55
1st stage	15 - 45	5 - 35	35 - 65	20 - 50	20 - 50	10 - 40	45 - 75	35 - 65	30 - 60	25 - 55
2nd Stage	---	---	---	---	35 - 65	20 - 50	---	---	45 - 75	35 - 65
<sup>1</sup> AFUE (single phase)	81%	81%	81%	---	81%	---	81%	---	81%	---
<sup>2</sup> Thermal Efficiency (three phase)	---	81%	81%	81%	81%	81%	81%	81%	81%	81%
Gas Supply Connections	1/2 in. NPT									
Rec. Gas Supply Pressure - Nat./ LPG	7 in.w.g. / 11 in.w.g.									

<sup>1</sup> Annual Fuel Utilization Efficiency based on U.S. DOE test procedures and FTC labeling regulations - 1 phase models only.

<sup>2</sup> Thermal Efficiency at full input.

### HIGH ALTITUDE DERATE

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

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

Heat Input Type	Altitude Feet	Gas Manifold Pressure in. w.g.		Input Rate (Btuh)
		Natural Gas	LPG/ Propane	
Standard (1 stage)	2001 - 4500	3.0	9.0	60,000
Medium (1 stage)	2001 - 4500	3.0	9.0	100,000
Medium (2 stage)	2001 - 4500	3.0/1.7	9.0/5.1	100,000 / 75,000
High (1 stage)	2001 - 4500	3.0	9.0	139,000
High (2 stage)	2001 - 4500	3.0/1.7	9.0/5.1	139,000 / 104,000

### AHRI DATA - HEATING - 1 PH MODELS

Model Number (Drive Type)	<sup>1</sup> Type	Gas Heat Size (All Low NOx)	AHRI Reference Number
ZGB036	W	Standard, 1 Stage	8203163
	Y	Medium, 1 Stage	8203171
	Q	Medium, 2 Stage	8203162
ZGB048	W	Standard, 1 Stage	8203182
	Y	Medium, 1 Stage	8203191
	Q	Medium, 2 Stage	8203172
	Z	High, 1 Stage	8203192
	X	High, 2 Stage	8203190

NOTE - All models are 208/230V-1 phase-60hz only.

<sup>1</sup> Model Number Heat Designation.

### AHRI DATA - HEATING - 1 PH MODELS

Model Number (Drive Type)	<sup>1</sup> Type	Gas Heat Size (All Low NOx)	AHRI Reference Number
ZGB060	W	Standard, 1 Stage	8203194
	Y	Medium, 1 Stage	8203196
	Q	Medium, 2 Stage	8203193
	Z	High, 1 Stage	8203197
	X	High, 2 Stage	8203195

NOTE - All models are 208/230V-1 phase-60hz only.

<sup>1</sup> Model Number Heat Designation.

### RATINGS

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

#### 3 TON STANDARD EFFICIENCY ZGB036S4

Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																				
		85°F						95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb			
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F		
63°F	960	34.5	2.06	0.70	0.84	0.99	32.4	2.31	0.71	0.86	1.00	30.2	2.60	0.73	0.90	1.00	27.7	2.94	0.75	0.94	1.00	
	1200	36.3	2.07	0.75	0.93	1.00	34.2	2.32	0.77	0.96	1.00	31.8	2.61	0.79	0.99	1.00	29.3	2.94	0.83	1.00	1.00	
	1440	37.8	2.07	0.80	1.00	1.00	35.6	2.33	0.83	1.00	1.00	33.5	2.62	0.86	1.00	1.00	30.9	2.95	0.91	1.00	1.00	
67°F	960	36.7	2.07	0.55	0.67	0.80	34.5	2.32	0.56	0.69	0.83	32.1	2.61	0.57	0.71	0.86	29.5	2.95	0.58	0.73	0.90	
	1200	38.6	2.08	0.58	0.73	0.89	36.2	2.33	0.59	0.75	0.92	33.6	2.62	0.60	0.77	0.95	30.8	2.95	0.62	0.81	1.00	
	1440	39.9	2.09	0.61	0.78	0.97	37.4	2.34	0.63	0.81	0.99	34.7	2.63	0.65	0.84	1.00	31.8	2.96	0.66	0.89	1.00	
71°F	960	38.7	2.08	0.42	0.54	0.65	36.5	2.33	0.41	0.54	0.67	34.0	2.62	0.41	0.55	0.69	31.3	2.95	0.42	0.57	0.71	
	1200	40.7	2.09	0.43	0.57	0.71	38.3	2.35	0.43	0.58	0.73	35.6	2.63	0.43	0.59	0.75	32.7	2.96	0.44	0.61	0.78	
	1440	42.1	2.10	0.45	0.60	0.76	39.6	2.35	0.44	0.61	0.78	36.9	2.64	0.45	0.64	0.82	33.7	2.97	0.46	0.65	0.86	

#### 4 TON STANDARD EFFICIENCY ZGB048S4

Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																				
		85°F						95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb			
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F		
63°F	1280	44.5	2.93	0.72	0.85	0.99	43.1	3.30	0.74	0.88	1.00	41.7	3.74	0.76	0.91	1.00	40.0	4.25	0.79	0.95	1.00	
	1600	46.2	2.94	0.76	0.94	1.00	44.7	3.32	0.79	0.97	1.00	43.1	3.76	0.82	1.00	1.00	41.5	4.27	0.85	1.00	1.00	
	1920	47.6	2.96	0.82	1.00	1.00	46.1	3.34	0.85	1.00	1.00	44.6	3.78	0.88	1.00	1.00	42.9	4.30	0.92	1.00	1.00	
67°F	1280	46.5	2.95	0.58	0.69	0.82	45.1	3.33	0.59	0.71	0.84	43.5	3.76	0.61	0.74	0.88	41.7	4.28	0.63	0.76	0.92	
	1600	48.4	2.97	0.60	0.74	0.90	46.7	3.35	0.62	0.76	0.93	45.0	3.79	0.64	0.79	0.97	42.9	4.30	0.66	0.83	1.00	
	1920	49.6	2.98	0.63	0.79	0.98	47.8	3.36	0.65	0.82	1.00	45.9	3.80	0.67	0.86	1.00	43.7	4.32	0.70	0.90	1.00	
71°F	1280	48.4	2.97	0.44	0.56	0.67	46.9	3.35	0.46	0.58	0.69	45.1	3.79	0.47	0.60	0.71	43.3	4.31	0.49	0.62	0.74	
	1600	50.4	2.99	0.45	0.59	0.72	48.6	3.38	0.47	0.61	0.74	46.7	3.82	0.48	0.63	0.77	44.6	4.34	0.51	0.65	0.80	
	1920	51.9	3.01	0.47	0.62	0.76	49.8	3.39	0.48	0.64	0.80	47.8	3.84	0.50	0.66	0.83	45.7	4.36	0.52	0.69	0.88	

#### 5 TON STANDARD EFFICIENCY ZGB060S4

Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																				
		85°F						95°F					105°F					115°F				
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb			
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F		
63°F	1600	55.3	3.63	0.74	0.88	0.99	50.8	4.08	0.74	0.89	1.00	45.8	4.61	0.75	0.91	1.00	40.6	5.23	0.76	0.94	1.00	
	2000	58.8	3.65	0.80	0.95	1.00	53.9	4.10	0.81	0.97	1.00	48.9	4.64	0.82	0.99	1.00	43.6	5.27	0.84	1.00	1.00	
	2400	61.7	3.66	0.85	1.00	1.00	56.9	4.12	0.86	1.00	1.00	52.1	4.67	0.89	1.00	1.00	46.9	5.32	0.91	1.00	1.00	
67°F	1600	59.7	3.65	0.57	0.72	0.85	54.9	4.11	0.56	0.72	0.86	49.9	4.65	0.55	0.73	0.88	44.4	5.28	0.54	0.74	0.91	
	2000	63.3	3.67	0.61	0.78	0.92	58.3	4.14	0.60	0.79	0.94	52.9	4.68	0.60	0.81	0.96	47.0	5.31	0.60	0.82	0.99	
	2400	66.0	3.69	0.65	0.83	0.98	60.6	4.15	0.65	0.85	1.00	55.1	4.71	0.65	0.87	1.00	49.0	5.35	0.66	0.90	1.00	
71°F	1600	63.9	3.67	0.41	0.56	0.70	58.9	4.14	0.39	0.55	0.70	53.8	4.69	0.38	0.55	0.71	48.0	5.33	0.35	0.54	0.72	
	2000	67.8	3.70	0.44	0.60	0.76	62.6	4.17	0.42	0.60	0.77	56.9	4.72	0.40	0.60	0.79	50.9	5.37	0.38	0.60	0.81	
	2400	70.7	3.72	0.45	0.64	0.82	65.0	4.19	0.44	0.64	0.83	59.2	4.75	0.43	0.65	0.85	53.0	5.40	0.41	0.66	0.88	

# RATINGS

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

## 6 TON STANDARD EFFICIENCY ZGB074S4B (1ST STAGE)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		65°F						75°F						85°F						95°F					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F					
63°F	1920	60.9	2.27	0.77	0.93	1	57.4	2.59	0.78	0.96	1	53.8	2.96	0.79	0.98	1	49.9	3.37	0.8	1	1				
	2400	64.5	2.26	0.83	1	1	61.3	2.58	0.84	1	1	57.8	2.95	0.86	1	1	54.1	3.37	0.89	1	1				
	2880	68.3	2.25	0.9	1	1	64.8	2.58	0.92	1	1	61.1	2.95	0.95	1	1	57.2	3.37	0.98	1	1				
67°F	1920	65.5	2.26	0.59	0.74	0.9	61.9	2.58	0.59	0.75	0.92	58	2.95	0.6	0.76	0.94	53.8	3.37	0.6	0.78	0.97				
	2400	68.7	2.25	0.63	0.81	0.99	64.8	2.58	0.64	0.82	1	60.7	2.95	0.64	0.84	1	56.3	3.37	0.65	0.86	1				
	2880	71	2.24	0.67	0.87	1	66.9	2.57	0.68	0.89	1	62.7	2.94	0.69	0.92	1	58.1	3.37	0.7	0.95	1				
71°F	1920	69.9	2.25	0.44	0.58	0.72	66.1	2.57	0.43	0.58	0.73	62.2	2.95	0.43	0.59	0.74	57.9	3.37	0.42	0.59	0.76				
	2400	73.4	2.24	0.45	0.62	0.78	69.3	2.56	0.45	0.63	0.8	65.2	2.94	0.44	0.64	0.81	60.7	3.36	0.44	0.65	0.84				
	2880	75.9	2.23	0.47	0.67	0.84	71.7	2.56	0.47	0.67	0.86	67.3	2.93	0.46	0.68	0.89	62.4	3.36	0.47	0.69	0.92				

## 6 TON STANDARD EFFICIENCY ZGB074S4B (2ND STAGE)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		85°F						95°F						105°F						115°F					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F					
63°F	1920	66.9	4.14	0.71	0.87	1	62.5	4.68	0.72	0.89	1	57.7	5.29	0.74	0.92	1	52.6	5.99	0.76	0.96	1				
	2400	70.5	4.18	0.77	0.96	1	65.7	4.71	0.79	0.98	1	61	5.33	0.81	1	1	56.1	6.03	0.84	1	1				
	2880	73.4	4.21	0.83	1	1	69.1	4.75	0.85	1	1	64.5	5.37	0.88	1	1	59.4	6.07	0.92	1	1				
67°F	1920	71.5	4.19	0.55	0.69	0.83	66.9	4.72	0.55	0.7	0.85	61.8	5.34	0.56	0.72	0.88	56.6	6.04	0.56	0.73	0.92				
	2400	75.3	4.23	0.59	0.75	0.92	70.3	4.76	0.59	0.77	0.95	64.9	5.37	0.6	0.79	0.98	59.5	6.07	0.61	0.82	1				
	2880	77.9	4.26	0.62	0.81	0.99	72.6	4.79	0.63	0.83	1	67	5.4	0.64	0.86	1	61.3	6.09	0.66	0.9	1				
71°F	1920	75.8	4.23	0.41	0.54	0.67	71.2	4.77	0.41	0.54	0.68	66	5.38	0.4	0.55	0.69	60.5	6.08	0.39	0.55	0.71				
	2400	79.8	4.28	0.43	0.58	0.73	74.6	4.82	0.42	0.59	0.74	69.4	5.43	0.41	0.59	0.76	63.6	6.13	0.41	0.61	0.79				
	2880	82.7	4.32	0.44	0.62	0.79	77.4	4.85	0.44	0.63	0.81	71.6	5.46	0.44	0.64	0.84	65.7	6.16	0.44	0.66	0.87				

## 6 TON STANDARD EFFICIENCY ZGB074S4T (1ST STAGE)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		65°F						75°F						85°F						95°F					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F					
63°F	1200	50.3	2.24	0.67	0.79	0.92	47.3	2.56	0.67	0.8	0.94	44.2	2.91	0.67	0.82	0.96	40.7	3.32	0.68	0.83	0.99				
	1600	55	2.24	0.73	0.88	1	51.6	2.55	0.74	0.9	1	48.1	2.91	0.74	0.92	1	44.3	3.32	0.76	0.95	1				
	2000	58.1	2.23	0.79	0.97	1	54.6	2.55	0.8	0.99	1	51	2.91	0.81	1	1	47.5	3.32	0.84	1	1				
67°F	1200	54.1	2.24	0.53	0.65	0.76	51	2.56	0.53	0.65	0.77	47.7	2.91	0.52	0.65	0.78	44.1	3.32	0.52	0.65	0.79				
	1600	59	2.23	0.57	0.7	0.84	55.6	2.55	0.57	0.71	0.86	51.9	2.91	0.56	0.72	0.88	48	3.32	0.57	0.73	0.91				
	2000	62.4	2.22	0.6	0.76	0.93	58.7	2.54	0.61	0.77	0.95	54.8	2.91	0.61	0.79	0.97	50.7	3.32	0.61	0.81	1				
71°F	1200	57.8	2.23	0.41	0.52	0.62	54.6	2.55	0.4	0.52	0.62	51.2	2.91	0.39	0.51	0.63	47.5	3.32	0.37	0.51	0.63				
	1600	63.1	2.22	0.43	0.55	0.68	59.5	2.54	0.42	0.56	0.69	55.7	2.91	0.41	0.56	0.7	51.8	3.32	0.4	0.56	0.71				
	2000	66.6	2.21	0.44	0.59	0.74	62.9	2.54	0.44	0.6	0.75	58.8	2.9	0.43	0.6	0.76	54.5	3.31	0.43	0.6	0.78				

## 6 TON STANDARD EFFICIENCY ZGB074S4T (2ND STAGE)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		85°F						95°F						105°F						115°F					
		Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)			Total Cool Cap.	Comp. Motor Input	Sensible To Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F					
63°F	1920	64	4.13	0.71	0.87	1	59.7	4.66	0.72	0.89	1	55.1	5.27	0.74	0.92	1	50.2	5.97	0.76	0.96	1				
	2400	67.5	4.16	0.77	0.96	1	62.8	4.7	0.79	0.98	1	58.2	5.31	0.81	1	1	53.5	6.01	0.84	1	1				
	2880	70.2	4.19	0.83	1	1	66.1	4.73	0.85	1	1	61.6	5.35	0.88	1	1	56.6	6.05	0.92	1	1				
67°F	1920	68.4	4.17	0.55	0.69	0.83	64	4.71	0.55	0.7	0.85	59	5.32	0.56	0.72	0.88	54	6.02	0.56	0.73	0.92				
	2400	72	4.21	0.59	0.75	0.92	67.2	4.75	0.59	0.77	0.95	62	5.36	0.6	0.79	0.98	56.8	6.05	0.61	0.82	1				
	2880	74.6	4.24	0.63	0.81	0.99	69.4	4.78	0.63	0.83	1	64	5.38	0.64	0.86	1	58.5	6.07	0.66	0.9	1				
71°F	1920	72.6	4.22	0.41	0.54	0.67	68	4.76	0.41	0.54	0.68	63	5.37	0.39	0.55	0.69	57.7	6.06	0.39	0.55	0.71				
	2400	76.3	4.26	0.43	0.58	0.73	71.3	4.8	0.42	0.59	0.74	66.3	5.41	0.41	0.59	0.76	60.7	6.1	0.41	0.6	0.79				
	2880	79.1	4.3	0.44	0.62	0.79	74	4.84	0.44	0.63	0.81	68.3	5.44	0.44	0.64	0.84	62.7	6.14	0.43	0.66	0.87				

## BLOWER DATA - ZGB036

**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, wet coil, etc.).

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

See page 21 for blower motors and drives and wet coil and options/accessory air resistance data.

### DOWNFLOW

Air Volume cfm	External Static - in. w.g.															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
900	573	0.16	639	0.18	707	0.19	776	0.21	844	0.23	908	0.25	967	0.27	1022	0.30
1000	600	0.18	665	0.20	733	0.22	802	0.23	868	0.25	930	0.28	986	0.31	1038	0.33
1100	628	0.21	695	0.22	762	0.24	829	0.26	893	0.29	953	0.31	1007	0.35	1057	0.38
1200	660	0.23	727	0.25	794	0.27	859	0.29	921	0.32	977	0.36	1029	0.39	1077	0.42
1300	695	0.26	761	0.28	827	0.31	890	0.33	949	0.37	1003	0.40	1053	0.44	1099	0.47
1400	734	0.30	799	0.32	862	0.35	923	0.38	978	0.41	1030	0.45	1078	0.49	1122	0.53
1500	775	0.34	837	0.37	898	0.40	955	0.43	1009	0.46	1058	0.50	1104	0.54	1147	0.58

Air Volume cfm	External Static - in. w.g.															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
900	1072	0.32	1120	0.35	1166	0.38	1210	0.41	1252	0.44	1292	0.47	1331	0.5	1370	0.54
1000	1087	0.36	1134	0.39	1179	0.42	1222	0.45	1263	0.48	1303	0.51	1341	0.55	1379	0.58
1100	1104	0.40	1150	0.43	1194	0.46	1236	0.49	1277	0.53	1315	0.56	1353	0.60	1390	0.64
1200	1123	0.45	1167	0.48	1210	0.51	1251	0.55	1291	0.58	1330	0.62	1367	0.66	1403	0.70
1300	1143	0.50	1186	0.54	1228	0.57	1268	0.60	1308	0.64	1346	0.68	1382	0.72	1418	0.76
1400	1165	0.56	1206	0.59	1247	0.63	1287	0.67	1326	0.70	1363	0.75	1399	0.79	1435	0.83
1500	1188	0.62	1229	0.66	1269	0.69	1308	0.73	1346	0.77	1382	0.82	1418	0.86	1453	0.90

### HORIZONTAL

Air Volume cfm	External Static - in. w.g.															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
900	573	0.14	642	0.16	712	0.18	780	0.21	846	0.23	909	0.26	967	0.28	1022	0.31
1000	599	0.16	668	0.18	737	0.21	804	0.23	868	0.26	928	0.29	984	0.32	1037	0.35
1100	626	0.18	695	0.21	764	0.24	830	0.26	892	0.29	950	0.32	1003	0.36	1053	0.39
1200	656	0.21	726	0.24	794	0.27	858	0.30	918	0.33	973	0.37	1024	0.40	1072	0.43
1300	691	0.25	761	0.28	827	0.31	889	0.34	945	0.38	998	0.41	1047	0.45	1093	0.48
1400	731	0.29	798	0.32	862	0.35	920	0.39	974	0.42	1024	0.46	1071	0.49	1115	0.53
1500	773	0.34	838	0.37	898	0.40	952	0.44	1004	0.47	1051	0.51	1096	0.55	1139	0.58

Air Volume cfm	External Static - in. w.g.															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
900	1074	0.33	1123	0.36	1171	0.39	1216	0.41	1260	0.44	1301	0.47	1340	0.49	1378	0.52
1000	1087	0.37	1135	0.40	1181	0.42	1226	0.45	1269	0.48	1310	0.51	1350	0.54	1388	0.57
1100	1101	0.41	1148	0.44	1193	0.47	1237	0.49	1279	0.52	1321	0.55	1360	0.59	1398	0.62
1200	1118	0.46	1163	0.48	1208	0.51	1251	0.54	1293	0.58	1334	0.61	1375	0.64	1414	0.68
1300	1137	0.51	1181	0.53	1224	0.57	1267	0.60	1309	0.63	1350	0.67	1391	0.71	1432	0.75
1400	1158	0.56	1200	0.59	1242	0.62	1284	0.66	1326	0.70	1367	0.74	1407	0.79	1448	0.83
1500	1180	0.61	1222	0.65	1263	0.69	1304	0.73	1345	0.77	1386	0.82	1427	0.87	1467	0.92



## BLOWER DATA - ZGB04S

**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, wet coil, etc.).

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

See page 21 for blower motors and drives and wet coil and options/accessory air resistance data.

### DOWNFLOW

Air Volume cfm	External Static - in. w.g.															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1200	660	0.23	727	0.25	794	0.27	859	0.29	921	0.32	977	0.36	1029	0.39	1077	0.42
1300	695	0.26	761	0.28	827	0.31	890	0.33	949	0.37	1003	0.40	1053	0.44	1099	0.47
1400	734	0.30	799	0.32	862	0.35	923	0.38	978	0.41	1030	0.45	1078	0.49	1122	0.53
1500	775	0.34	837	0.37	898	0.40	955	0.43	1009	0.46	1058	0.50	1104	0.54	1147	0.58
1600	817	0.39	877	0.42	935	0.45	989	0.48	1040	0.52	1087	0.56	1131	0.60	1173	0.65
1700	859	0.44	917	0.47	972	0.50	1023	0.54	1071	0.58	1117	0.62	1159	0.67	1199	0.71
1800	902	0.49	957	0.53	1008	0.56	1057	0.60	1103	0.64	1147	0.69	1188	0.74	1227	0.79
1900	944	0.56	996	0.59	1045	0.63	1092	0.68	1136	0.72	1178	0.77	1218	0.82	1257	0.87
2000	986	0.63	1035	0.67	1083	0.71	1127	0.76	1170	0.81	1210	0.86	1249	0.91	1287	0.97

Air Volume cfm	External Static - in. w.g.															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1200	1123	0.45	1167	0.48	1210	0.51	1251	0.55	1291	0.58	1330	0.62	1367	0.66	1403	0.70
1300	1143	0.50	1186	0.54	1228	0.57	1268	0.60	1308	0.64	1346	0.68	1382	0.72	1418	0.76
1400	1165	0.56	1206	0.59	1247	0.63	1287	0.67	1326	0.70	1363	0.75	1399	0.79	1435	0.83
1500	1188	0.62	1229	0.66	1269	0.69	1308	0.73	1346	0.77	1382	0.82	1418	0.86	1453	0.90
1600	1213	0.69	1252	0.73	1292	0.77	1330	0.81	1367	0.85	1403	0.89	1438	0.94	1472	0.98
1700	1239	0.76	1278	0.80	1316	0.84	1354	0.89	1390	0.93	1425	0.98	1459	1.02	1492	1.07
1800	1266	0.83	1304	0.88	1342	0.93	1378	0.98	1414	1.02	1448	1.07	1481	1.12	1514	1.16
1900	1294	0.92	1332	0.97	1369	1.02	1404	1.07	1439	1.12	1472	1.17	1504	1.21	1536	1.26
2000	1324	1.02	1360	1.07	1396	1.13	1431	1.18	1465	1.23	1497	1.27	1529	1.32	1560	1.37

### HORIZONTAL

Air Volume cfm	External Static - in. w.g.															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1200	656	0.21	726	0.24	794	0.27	858	0.30	918	0.33	973	0.37	1024	0.40	1072	0.43
1300	691	0.25	761	0.28	827	0.31	889	0.34	945	0.38	998	0.41	1047	0.45	1093	0.48
1400	731	0.29	798	0.32	862	0.35	920	0.39	974	0.42	1024	0.46	1071	0.49	1115	0.53
1500	773	0.34	838	0.37	898	0.40	952	0.44	1004	0.47	1051	0.51	1096	0.55	1139	0.58
1600	817	0.39	878	0.42	934	0.46	985	0.49	1034	0.53	1080	0.56	1123	0.60	1164	0.64
1700	861	0.45	918	0.48	970	0.51	1018	0.55	1065	0.58	1108	0.62	1150	0.66	1190	0.70
1800	904	0.51	957	0.54	1006	0.57	1052	0.61	1096	0.65	1138	0.69	1178	0.73	1217	0.78
1900	946	0.57	996	0.61	1042	0.64	1086	0.68	1128	0.72	1168	0.76	1207	0.81	1245	0.86
2000	988	0.64	1035	0.68	1079	0.72	1120	0.76	1161	0.81	1199	0.85	1237	0.90	1275	0.96

Air Volume cfm	External Static - in. w.g.															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1200	1118	0.46	1163	0.48	1208	0.51	1251	0.54	1293	0.58	1334	0.61	1375	0.64	1414	0.68
1300	1137	0.51	1181	0.53	1224	0.57	1267	0.60	1309	0.63	1350	0.67	1391	0.71	1432	0.75
1400	1158	0.56	1200	0.59	1242	0.62	1284	0.66	1326	0.70	1367	0.74	1407	0.79	1448	0.83
1500	1180	0.61	1222	0.65	1263	0.69	1304	0.73	1345	0.77	1386	0.82	1427	0.87	1467	0.92
1600	1204	0.68	1245	0.72	1285	0.76	1325	0.80	1366	0.85	1406	0.90	1447	0.96	1487	1.02
1700	1229	0.75	1269	0.79	1309	0.84	1348	0.89	1388	0.94	1428	1.00	1468	1.06	1508	1.12
1800	1256	0.83	1295	0.88	1334	0.93	1373	0.98	1412	1.04	1451	1.10	1490	1.16	1529	1.23
1900	1283	0.92	1322	0.97	1360	1.03	1398	1.09	1436	1.15	1474	1.21	1511	1.27	1549	1.34
2000	1312	1.02	1350	1.07	1387	1.13	1424	1.20	1461	1.26	1498	1.32	1535	1.38	1571	1.45

## BLOWER DATA - ZGB060

**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, wet coil, etc.).

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

See page 21 for blower motors and drives and wet coil and options/accessory air resistance data.

### DOWNFLOW

Air Volume cfm	External Static - in. w.g.															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1600	848	0.48	905	0.53	961	0.57	1015	0.61	1064	0.66	1107	0.69	1148	0.73	1189	0.76
1700	898	0.56	952	0.60	1005	0.65	1054	0.69	1099	0.73	1140	0.77	1180	0.80	1221	0.83
1800	948	0.63	998	0.68	1047	0.73	1093	0.78	1136	0.82	1175	0.85	1214	0.88	1255	0.91
1900	996	0.72	1042	0.77	1088	0.82	1132	0.86	1173	0.90	1211	0.94	1250	0.97	1290	1.00
2000	1041	0.81	1084	0.86	1128	0.91	1170	0.95	1210	0.99	1249	1.03	1287	1.06	1326	1.10
2100	1084	0.91	1126	0.95	1168	1.00	1209	1.04	1249	1.08	1287	1.12	1324	1.17	1362	1.21
2200	1128	1.01	1169	1.05	1210	1.10	1250	1.14	1288	1.19	1326	1.23	1363	1.28	1399	1.34
2300	1173	1.11	1214	1.16	1253	1.20	1292	1.25	1329	1.30	1366	1.36	1402	1.42	1437	1.48
2400	1220	1.23	1259	1.28	1297	1.33	1335	1.38	1371	1.44	1406	1.50	1442	1.57	1476	1.63

Air Volume cfm	External Static - in. w.g.															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1600	1232	0.79	1274	0.82	1316	0.86	1356	0.90	1395	0.94	1433	0.99	1470	1.04	1506	1.09
1700	1263	0.86	1304	0.90	1344	0.94	1383	0.99	1421	1.04	1458	1.09	1494	1.14	1530	1.19
1800	1295	0.95	1335	0.99	1374	1.04	1412	1.09	1448	1.14	1484	1.20	1520	1.25	1556	1.30
1900	1329	1.04	1368	1.09	1405	1.15	1441	1.20	1477	1.26	1513	1.31	1548	1.37	1583	1.42
2000	1364	1.15	1401	1.21	1437	1.27	1472	1.33	1507	1.38	1543	1.44	1578	1.49	1613	1.54
2100	1399	1.27	1435	1.33	1470	1.40	1505	1.46	1539	1.51	1574	1.56	1609	1.61	1645	1.66
2200	1435	1.40	1470	1.47	1504	1.53	1538	1.59	1573	1.65	1608	1.70	1642	1.74	1678	1.79
2300	1472	1.54	1506	1.61	1540	1.67	1574	1.73	1608	1.78	1642	1.83	1677	1.88	1712	1.93
2400	1510	1.7	1544	1.76	1577	1.82	1610	1.88	1644	1.93	1678	1.97	1713	2.02	1748	2.07

### HORIZONTAL

Air Volume cfm	External Static - in. w.g.															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1600	761	0.43	820	0.47	879	0.52	937	0.56	994	0.61	1045	0.65	1090	0.69	1132	0.72
1700	803	0.49	861	0.53	918	0.58	973	0.63	1025	0.67	1072	0.72	1114	0.75	1155	0.78
1800	846	0.56	901	0.60	955	0.65	1008	0.70	1056	0.75	1099	0.79	1140	0.82	1181	0.85
1900	889	0.63	941	0.68	993	0.73	1042	0.78	1087	0.83	1129	0.87	1168	0.90	1209	0.93
2000	933	0.71	981	0.76	1030	0.81	1076	0.86	1119	0.91	1159	0.95	1198	0.98	1238	1.01
2100	974	0.79	1020	0.85	1065	0.90	1109	0.96	1151	1.00	1190	1.04	1229	1.07	1268	1.11
2200	1013	0.89	1057	0.94	1100	0.99	1143	1.05	1183	1.09	1222	1.13	1261	1.17	1299	1.21
2300	1050	0.99	1093	1.04	1135	1.09	1177	1.14	1217	1.18	1255	1.23	1293	1.27	1331	1.32
2400	1088	1.09	1129	1.14	1170	1.19	1211	1.23	1250	1.28	1289	1.33	1326	1.38	1363	1.44

Air Volume cfm	External Static - in. w.g.															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1600	1175	0.76	1218	0.79	1260	0.82	1302	0.85	1343	0.89	1383	0.93	1421	0.98	1458	1.03
1700	1198	0.82	1241	0.85	1283	0.89	1324	0.93	1364	0.97	1402	1.02	1439	1.07	1476	1.12
1800	1223	0.89	1265	0.92	1307	0.96	1347	1.01	1386	1.06	1423	1.11	1459	1.16	1495	1.21
1900	1250	0.96	1292	1.01	1332	1.05	1371	1.10	1408	1.15	1445	1.21	1481	1.27	1516	1.32
2000	1279	1.05	1319	1.10	1358	1.15	1396	1.20	1432	1.26	1468	1.32	1504	1.38	1539	1.44
2100	1308	1.15	1347	1.20	1385	1.26	1421	1.32	1457	1.38	1493	1.44	1528	1.50	1563	1.56
2200	1338	1.26	1376	1.31	1412	1.38	1448	1.45	1483	1.51	1518	1.57	1553	1.63	1588	1.68
2300	1368	1.37	1405	1.44	1441	1.51	1476	1.58	1510	1.64	1545	1.70	1580	1.76	1615	1.81
2400	1400	1.50	1435	1.57	1470	1.65	1505	1.72	1539	1.78	1573	1.84	1608	1.89	1643	1.94

## BLOWER DATA - ZGB074

**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, wet coil, etc.).

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

See page 21 for blower motors and drives and wet coil and options/accessory air resistance data.

### DOWNFLOW

Air Volume cfm	External Static - in. w.g.															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1900	578	0.44	610	0.49	643	0.54	678	0.60	714	0.65	749	0.70	785	0.76	819	0.82
2000	600	0.50	632	0.56	665	0.61	699	0.66	734	0.71	769	0.77	803	0.83	837	0.90
2100	623	0.57	655	0.62	688	0.68	721	0.73	755	0.79	789	0.84	822	0.91	854	0.98
2200	647	0.65	678	0.70	711	0.75	743	0.81	776	0.86	809	0.93	841	1.00	872	1.06
2300	671	0.73	702	0.78	734	0.83	766	0.89	798	0.95	829	1.02	860	1.09	890	1.16
2400	696	0.81	726	0.87	757	0.92	788	0.98	819	1.04	850	1.11	880	1.19	909	1.26
2500	720	0.90	750	0.95	780	1.01	811	1.07	841	1.14	871	1.22	900	1.30	929	1.37
2600	745	0.99	774	1.05	804	1.11	834	1.17	864	1.25	893	1.33	921	1.41	949	1.49
2700	770	1.09	799	1.15	828	1.21	858	1.28	887	1.36	916	1.44	943	1.53	969	1.61
2800	795	1.19	824	1.25	853	1.33	882	1.40	911	1.48	939	1.56	965	1.65	990	1.73
2900	820	1.30	849	1.37	878	1.45	907	1.53	935	1.61	962	1.70	988	1.78	1012	1.86

Air Volume cfm	External Static - in. w.g.															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1900	853	0.88	885	0.94	915	0.99	944	1.05	971	1.11	996	1.17	1021	1.23	1045	1.29
2000	869	0.96	899	1.01	929	1.07	957	1.13	984	1.19	1009	1.25	1033	1.31	1058	1.38
2100	885	1.04	915	1.10	944	1.15	971	1.22	997	1.28	1022	1.34	1046	1.40	1070	1.46
2200	902	1.13	931	1.19	959	1.24	986	1.31	1012	1.37	1036	1.43	1060	1.50	1084	1.56
2300	920	1.23	948	1.29	975	1.35	1001	1.41	1027	1.47	1051	1.53	1075	1.60	1098	1.66
2400	938	1.33	965	1.39	992	1.45	1017	1.52	1042	1.58	1066	1.64	1090	1.70	1113	1.77
2500	956	1.44	983	1.51	1009	1.57	1034	1.63	1059	1.69	1082	1.75	1105	1.82	1128	1.88
2600	975	1.56	1001	1.63	1026	1.69	1051	1.75	1075	1.81	1098	1.87	1121	1.93	1143	2.00
2700	995	1.68	1020	1.75	1044	1.81	1069	1.87	1092	1.93	1114	1.99	1136	2.06	1158	2.13
2800	1015	1.81	1039	1.87	1063	1.94	1086	2.00	1109	2.06	1131	2.12	1152	2.19	1174	2.26
2900	1035	1.94	1058	2.00	1081	2.07	1104	2.13	1126	2.19	1147	2.26	1168	2.33	1189	2.40

### HORIZONTAL

Air Volume cfm	External Static - in. w.g.															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1900	581	0.44	618	0.49	655	0.54	692	0.59	729	0.64	765	0.69	800	0.75	833	0.80
2000	602	0.50	639	0.55	676	0.61	713	0.66	749	0.71	784	0.76	818	0.82	850	0.88
2100	625	0.57	661	0.62	698	0.67	735	0.73	770	0.78	804	0.84	837	0.90	868	0.96
2200	648	0.64	685	0.69	721	0.75	757	0.80	791	0.86	824	0.92	856	0.98	886	1.05
2300	673	0.71	709	0.77	745	0.83	780	0.88	813	0.94	845	1.01	876	1.08	905	1.15
2400	699	0.79	734	0.85	769	0.91	803	0.97	835	1.04	866	1.11	896	1.18	924	1.25
2500	725	0.88	759	0.94	793	1.00	826	1.07	857	1.14	887	1.21	916	1.28	944	1.36
2600	752	0.97	785	1.04	818	1.10	850	1.17	880	1.25	909	1.32	937	1.40	964	1.48
2700	779	1.07	811	1.14	843	1.21	873	1.29	902	1.37	931	1.44	958	1.52	984	1.60
2800	805	1.18	837	1.26	868	1.33	897	1.41	925	1.49	952	1.57	979	1.66	1004	1.74
2900	832	1.30	863	1.38	892	1.46	921	1.54	948	1.63	974	1.71	1000	1.80	1024	1.88

Air Volume cfm	External Static - in. w.g.															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1900	864	0.87	895	0.93	924	0.99	953	1.06	980	1.12	1007	1.18	1032	1.25	1056	1.31
2000	881	0.95	911	1.01	940	1.08	967	1.14	994	1.21	1020	1.27	1044	1.34	1068	1.40
2100	898	1.03	927	1.10	955	1.17	982	1.23	1008	1.30	1033	1.37	1057	1.43	1080	1.50
2200	916	1.12	944	1.19	971	1.26	998	1.33	1023	1.40	1047	1.47	1071	1.54	1093	1.60
2300	934	1.22	961	1.29	988	1.36	1014	1.43	1038	1.50	1062	1.58	1085	1.65	1107	1.71
2400	952	1.32	979	1.40	1005	1.47	1030	1.54	1054	1.62	1077	1.69	1099	1.76	1121	1.83
2500	971	1.43	997	1.51	1022	1.59	1046	1.66	1069	1.74	1092	1.81	1114	1.88	1135	1.95
2600	990	1.55	1015	1.63	1039	1.71	1063	1.79	1086	1.86	1108	1.94	1129	2.01	1150	2.07
2700	1009	1.68	1034	1.76	1057	1.84	1080	1.92	1102	1.99	1124	2.07	1145	2.14	1166	2.21
2800	1028	1.82	1052	1.9	1075	1.98	1097	2.06	1119	2.13	1140	2.21	1161	2.28	1182	2.34
2900	1048	1.96	1071	2.04	1093	2.12	1115	2.20	1136	2.28	1157	2.35	1177	2.42	1198	2.48

## BLOWER DATA

### BELT DRIVE KIT SPECIFICATIONS - ZGB036-060

Model No.	Motor HP		No. of Speeds	Drive Kits and RPM Range					
	Nominal	Maximum		ZA01	ZA02	ZA03	ZA04	<sup>3</sup> ZA05	<sup>3</sup> ZA06
ZGB036	<sup>1</sup> 0.75	0.86	1	678 - 1035	---	---	964 - 1471	---	---
	<sup>2</sup> 1	1.15	1	678 - 1035	---	---	964 - 1471	---	---
	<sup>1</sup> 1.5	1.7	1	678 - 1035	---	---	964 - 1471	---	---
ZGB048	<sup>1</sup> 0.75	0.86	1	---	803 - 1226	---	---	---	---
	<sup>2</sup> 1	1.15	1	---	803 - 1226	---	---	---	---
	<sup>1</sup> 1.5	1.7	1	---	803 - 1226	---	---	1098 - 1490	---
ZGB060	<sup>1</sup> 0.75	0.86	1	---	---	906 - 1383	---	---	---
	<sup>2</sup> 1	1.15	1	---	---	906 - 1383	---	---	---
	<sup>1</sup> 1.5	1.7	1	---	---	906 - 1383	---	---	1262 - 1634

### BELT DRIVE KIT SPECIFICATIONS - ZGB074

Model No.	Motor HP		No. of Speeds	Drive Kits and RPM Range		
	Nominal	Maximum		ZAA02	ZAA03	<sup>4</sup> ZAA04
ZGB074S4B	1.5	1.7	1	632 - 875	798 - 1105	---
	2	2.3	1	632 - 875	798 - 1105	921 - 1228
ZGB074S4T	2	2.3	2	632 - 875	798 - 1105	921 - 1228

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

<sup>1</sup> 0.75 and 1.5 hp motors are only available for ZGB 208/230V-1ph applications.

<sup>2</sup> 1 hp blower motor is not available for ZGB 208/230V-1ph applications.

<sup>3</sup> 1.5 hp blower motor is required with the ZA05 and ZA06 drive kits.

<sup>4</sup> 2 hp blower motor is required with the ZAA04 drive kit.

### POWER EXHAUST FAN PERFORMANCE

Return Air System Static Pressure - in. w.g.	Air Volume Exhausted cfm
0.00	1865
0.05	1785
0.10	1710
0.15	1630
0.20	1545
0.25	1450
0.30	1350
0.35	1240

## BLOWER DATA

### OPTIONS / ACCESSORIES AIR RESISTANCE - in. w.g.

Air Volume cfm	Wet Indoor Coil		Gss Heat Exchanger		Economizer	
	ZGB036, ZGB048	ZGB060, ZGB074	Medium	High	Downflow	Horizontal
900	0.01	---	0.05	0.06	0.03	0.04
1000	0.02	---	0.06	0.06	0.03	0.05
1100	0.02	---	0.06	0.07	0.04	0.05
1200	0.02	---	0.06	0.07	0.05	0.06
1300	0.03	---	0.07	0.07	0.05	0.07
1400	0.03	---	0.07	0.08	0.06	0.08
1500	0.04	---	0.07	0.08	0.07	0.08
1600	0.04	0.03	0.07	0.08	0.08	0.09
1700	0.05	0.03	0.07	0.08	0.09	0.10
1800	0.05	0.03	0.06	0.08	0.10	0.11
1900	0.06	0.04	0.06	0.08	0.11	0.12
2000	0.06	0.04	0.07	0.09	0.12	0.13
2100	---	0.05	0.08	0.10	0.13	0.14
2200	---	0.05	0.10	0.12	0.14	0.15
2300	---	0.05	0.11	0.14	0.15	0.16
2400	---	0.06	0.11	0.13	0.16	0.18
2500	---	0.06	0.11	0.15	0.18	0.19
2600	---	0.07	0.13	0.16	0.19	0.20
2700	---	0.07	0.15	0.18	0.20	0.21
2800	---	0.07	0.13	0.16	0.22	0.23
2900	---	0.08	0.13	0.18	0.23	0.24

## OUTDOOR SOUND DATA

Unit Model No.	Octave Band Linear Sound Power Levels dB, re 10 <sup>-12</sup> Watts - Center Frequency - Hz							<sup>1</sup> Sound Rating Number (SRN) (dBA)
	125	250	500	1000	2000	4000	8000	
ZGB036	66	70	73	72	70	67	60	78
ZGB048	68	71	75	74	71	68	63	80
ZGB060	64	68	72	73	69	67	63	78
ZGB074	73	76	80	78	73	68	66	84

<sup>1</sup> Sound Rating Number according to ANSI/AHRI Standard 270-2008. "SRN" is the overall A-Weighted Sound Power Level, (LWA), dB (100 Hz to 10,000 Hz).

## BLOWER DATA

### CEILING DIFFUSERS AIR RESISTANCE (in. w.g.)

Air Volume cfm	RTD9-65S Step-Down Diffuser			FD9-65S Flush Diffuser	RTD11-95S Step-Down Diffuser			FD11-95S Flush Diffuser
	2 Ends Open	1 Side & 2 Ends Open	All Ends & Sides Open		2 Ends Open	1 Side & 2 Ends Open	All Ends & Sides Open	
800	0.15	0.13	0.11	0.11	---	---	---	---
1000	0.19	0.16	0.14	0.14	---	---	---	---
1200	0.25	0.20	0.17	0.17	---	---	---	---
1400	0.33	0.26	0.20	0.20	---	---	---	---
1600	0.43	0.32	0.20	0.24	---	---	---	---
1800	0.56	0.40	0.30	0.30	0.13	0.11	0.09	0.09
2000	0.73	0.50	0.36	0.36	0.15	0.13	0.11	0.10
2200	0.95	0.63	0.44	0.44	0.18	0.15	0.12	0.12
2400	---	----	---	---	0.21	0.18	0.15	0.14
2600	---	----	---	---	0.24	0.21	0.18	0.17
2800	---	----	---	---	0.27	0.24	0.21	0.20
3000	---	----	---	---	0.32	0.29	0.25	0.25
3200	---	----	---	---	0.41	0.37	0.32	0.31
3400	---	----	---	---	0.50	0.45	0.39	0.37
3600	---	----	---	---	0.61	0.54	0.48	0.44

### CEILING DIFFUSER AIR THROW DATA

Air Volume - cfm	<sup>1</sup> Effective Throw - ft.		Air Volume - cfm	<sup>1</sup> Effective Throw - ft.	
Model No.	RTD9-65S	FD9-65S	Model No.	RTD11-95S	FD11-95S
800	10 - 17	14 - 18	2600	24 - 29	19 - 24
1000	10 - 17	15 - 20	2800	25 - 30	20 - 28
1200	11 - 18	16 - 22	3000	27 - 33	21 - 29
1400	12 - 19	17 - 24	3200	28 - 35	22 - 29
1600	12 - 20	18 - 25	3400	30 - 37	22 - 30
1800	13 - 21	20 - 28	3600	25 - 33	22 - 24
2000	14 - 23	21 - 29			
2200	16 - 25	22 - 30			

<sup>1</sup> Effective throw based on terminal velocities of 75 ft. per minute.

**ELECTRICAL DATA****3 TON****ZGB036S4**

<sup>1</sup> Voltage - 60hz		208/230V - 1 Ph		208/230V - 3 Ph		460V - 3 Ph		575V - 3 Ph	
Compressor	Rated Load Amps	15.3		8.7		4		3.6	
	Locked Rotor Amps	70		70		31		27	
Outdoor Fan Motor	Full Load Amps	1.7		1.7		0.9		0.7	
Power Exhaust (1) 0.5 HP	Full Load Amps	1.5		1.5		0.6		0.6	
Indoor Blower Motor	Horsepower	0.75	1.5	1	1.5	1	1.5	1	1.5
	Full Load Amps	7.6	11	4.6	6.6	2.1	3	1.7	2.4
<sup>2</sup> Maximum Overcurrent Protection	Unit Only	40	45	25	25	15	15	15	15
	With (1) 0.5 HP Power Exhaust	45	45	25	25	15	15	15	15
<sup>3</sup> Minimum Circuit Ampacity	Unit Only	29	32	18	20	8	9	7	8
	With (1) 0.5 HP Power Exhaust	30	34	19	21	9	10	8	9

**ELECTRICAL DATA****4 TON****ZGB048S4**

<sup>1</sup> Voltage - 60hz		208/230V - 1 Ph		208/230V - 3 Ph		460V - 3 Ph		575V - 3 Ph	
Compressor	Rated Load Amps	20		11		5.5		4.7	
	Locked Rotor Amps	99		86		37		34	
Outdoor Fan Motor	Full Load Amps	1.7		1.7		0.9		0.7	
Power Exhaust (1) 0.5 HP	Full Load Amps	1.5		1.5		0.6		0.6	
Indoor Blower Motor	Horsepower	0.75	1.5	1	1.5	1	1.5	1	1.5
	Full Load Amps	7.6	11	4.6	6.6	2.1	3	1.7	2.4
<sup>2</sup> Maximum Overcurrent Protection	Unit Only	50	50	30	30	15	15	15	15
	With (1) 0.5 HP Power Exhaust	50	50	30	30	15	15	15	15
<sup>3</sup> Minimum Circuit Ampacity	Unit Only	35	38	21	23	10	11	9	9
	With (1) 0.5 HP Power Exhaust	36	40	22	24	11	12	9	10

**ELECTRICAL DATA****5 TON****ZGB060S4**

<sup>1</sup> Voltage - 60hz		208/230V - 1 Ph		208/230V - 3 Ph		460V - 3 Ph		575V - 3 Ph	
Compressor	Rated Load Amps	22.1		13.5		8		5	
	Locked Rotor Amps	125		109		59		40	
Outdoor Fan Motor	Full Load Amps	1.7		1.7		0.9		0.7	
Power Exhaust (1) 0.5 HP	Full Load Amps	1.5		1.5		0.6		0.6	
Indoor Blower Motor	Horsepower	0.75	1.5	1	1.5	1	1.5	1	1.5
	Full Load Amps	7.6	11	4.6	6.6	2.1	3	1.7	2.4
<sup>2</sup> Maximum Overcurrent Protection	Unit Only	50	60	35	35	20	20	15	15
	With (1) 0.5 HP Power Exhaust	60	60	35	40	20	20	15	15
<sup>3</sup> Minimum Circuit Ampacity	Unit Only	37	41	24	26	13	14	9	10
	With (1) 0.5 HP Power Exhaust	39	42	25	27	14	15	10	10

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

<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.<sup>2</sup> HACR type breaker or fuse.<sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

**ELECTRICAL DATA****6 TON****ZGB074S4B**

<sup>1</sup> Voltage - 60hz		208/230V - 3 Ph	460V - 3 Ph	575V - 3 Ph
Compressor	Rated Load Amps	17.6	8.5	6.3
	Locked Rotor Amps	136	66.1	55.3
Outdoor Fan Motor	Full Load Amps	1.7	1	0.9
Power Exhaust (1) 0.5 HP	Full Load Amps	1.5	0.6	0.6
Indoor Blower Motor	Horsepower	2	2	2
	Full Load Amps	7.5	3.4	2.7
<sup>2</sup> Maximum Overcurrent Protection	Unit Only	45	20	15
	With (1) 0.5 HP Power Exhaust	50	20	15
<sup>3</sup> Minimum Circuit Ampacity	Unit Only	32	16	12
	With (1) 0.5 HP Power Exhaust	33	16	13

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

<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.<sup>2</sup> HACR type breaker or fuse.<sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.**ELECTRICAL DATA****6 TON****ZGB074S4T**

<sup>1</sup> Voltage - 60hz		208/230V - 3 Ph	460V - 3 Ph	575V - 3 Ph
Compressor	Rated Load Amps	17.6	8.5	6.3
	Locked Rotor Amps	136	66.1	55.3
Outdoor Fan Motor	Full Load Amps	1.7	1	0.9
Power Exhaust (1) 0.5 HP	Full Load Amps	2.4	1.3	1
Indoor Blower Motor	Horsepower	2	2	2
	Full Load Amps	7.5	3.4	2.7
<sup>2</sup> Maximum Overcurrent Protection	Unit Only	45	20	15
	With (1) 0.5 HP Power Exhaust	50	20	15
<sup>3</sup> Minimum Circuit Ampacity	Unit Only	32	16	12
	With (1) 0.5 HP Power Exhaust	34	17	13

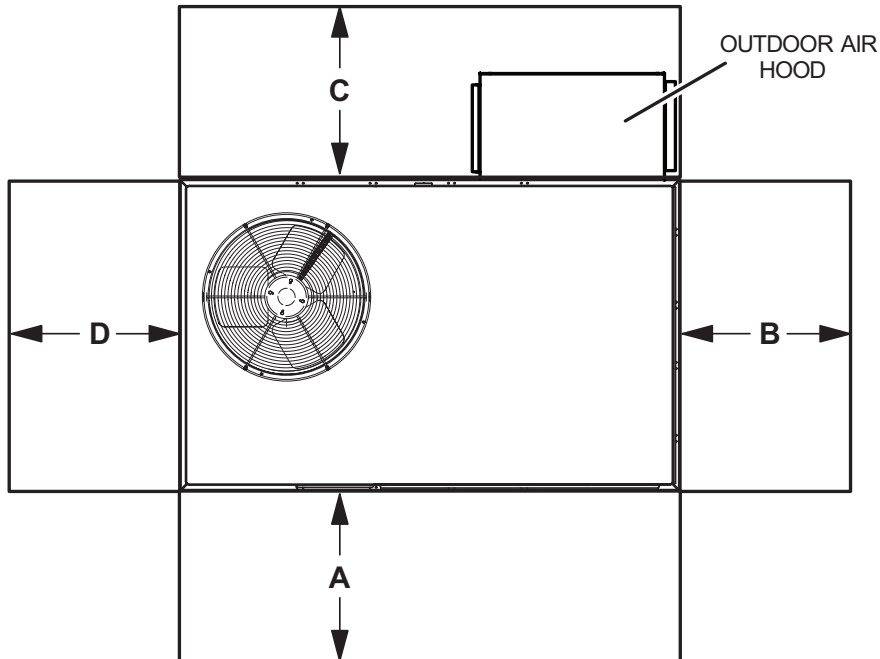
NOTE - All units have a minimum Short Circuit Current Rating (SCCR) of 5000 amps.

<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.<sup>2</sup> HACR type breaker or fuse.<sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

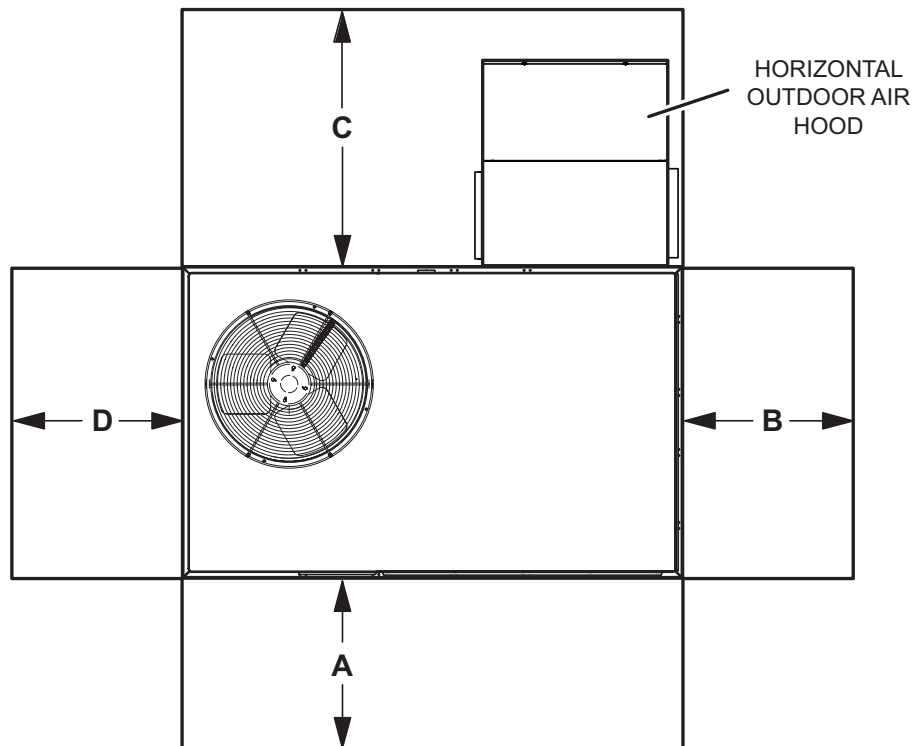


## UNIT CLEARANCES - INCHES (MM)

### UNIT WITH DOWNFLOW ECONOMIZER



### UNIT WITH HORIZONTAL ECONOMIZER




1 Unit Clearance	A		B		C Downflow		C Horizontal		D		Top Clearance
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	
<b>Service Clearance</b>	36	914	36	914	36	914	60	1524	36	914	<b>Unobstructed</b>
<b>Clearance to Combustibles</b>	36	914	1	25	1	25	1	25	1	25	
<b>Minimum Operation Clearance</b>	36	914	36	914	36	914	60	1524	36	914	

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

<sup>1</sup> Service Clearance - Required for removal of serviceable parts.

Minimum Operation Clearance - Required clearance for proper unit operation.

## OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS

Item	Model No.	Catalog No.	
<p><b>7-DAY PROGRAMMABLE THERMOSTAT - BACNET COMPATIBLE WITH REHEAT FUNCTION</b></p>  <ul style="list-style-type: none"> <li>• For units with or without <sup>1</sup> Dehumidification Option</li> <li>• BTL listed MS/TP ensures compatibility with any BACnet system</li> <li>• Built-in control programs for conventional and heat pump applications</li> <li>• Conventional systems up to 3-stage heat and 3-stage cool</li> <li>• Heat pumps with 1 or 2 compressors and up to 2-stage auxiliary heat</li> <li>• On-board temperature and humidity sensor</li> <li>• Multiple configurable inputs and outputs enable advanced control strategies</li> <li>• Set-up Wizard enables rapid system configuration</li> <li>• No special tools required for installation or commissioning</li> <li>• Seven-day (2, 4 or 6 event) occupancy scheduling per day</li> <li>• Backlit 5-inch LCD touchscreen</li> </ul>	- - -	<b>Y8241</b>	
<p><sup>1</sup> BACnet Thermostat (Y8241) will control units with and without dehumidification. If there is a mix of units equipped with and without dehumidification on the same site, this thermostat can be used for all units if desired.</p>			
<p><b>BACnet Controls (no reheat capability)</b></p>	<p>BACnet® Module (factory or field installed)</p>	<p>K0CTRL31A-2</p>	<p><b>16X70</b></p>
	<p>BACnet® Room Sensor with Display (field installed)</p>	<p>K0SNSR01FF1</p>	<p><b>97W23</b></p>
	<p>BACnet® Room Sensor without Display (field installed)</p>	<p>K0SNSR00FF1</p>	<p><b>97W24</b></p>
<p><b>Optional Accessories</b></p>	<p>Plenum Cable (RJ45/CAT5 75 ft.)</p>	<p>K0MISC00FF1</p>	<p><b>97W25</b></p>

## WEIGHT DATA

Model Number	Net				Shipping			
	Base		Max.		Base		Max.	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
ZGB036S	524	238	594	269	529	240	599	272
ZGB048S	533	242	603	274	538	244	608	276
ZGB060S	592	269	664	301	597	271	669	303
ZGB074S	640	290	712	323	645	293	717	325

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

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

## OPTIONS / ACCESSORIES

		Shipping Weights	
		lbs.	kg
<b>ECONOMIZER</b>			
<b>Economizer</b>			
Economizer, Includes Outdoor Air Hood and Barometric Relief Dampers with Hood	Downflow	75	34
	Horizontal	102	46
<b>OUTDOOR AIR</b>			
<b>Outdoor Air Dampers</b>			
Motorized		39	18
Manual		29	13
<b>POWER EXHAUST</b>			
Standard Static	Downflow	54	24
	Horizontal	41	19
<b>GAS HEAT</b>			
Medium Heat (adder over standard heat)		8	4
High Heat (adder over standard heat)		19	9
<b>ROOF CURBS</b>			
<b>Hybrid Roof Curbs, Downflow</b>			
8 in. height		63	29
14 in. height		83	38
18 in. height		93	42
24 in. height		113	51
<b>CEILING DIFFUSERS</b>			
Step-Down	RTD9-65S	80	36
	RTD11-95S	118	54
Flush	FD9-65S	80	36
	FD11-95S	118	54

## DIMENSIONS - UNIT - INCHES (MM)

Model No.	CORNER WEIGHTS																CENTER OF GRAVITY							
	AA		BB				CC				DD				EE		FF							
	Base	Max.	Base	Max.	Base	Max.	Base	Max.	Base	Max.	Base	Max.	Base	Max.	Base	Max.	Base	Max.						
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm	in.	mm						
<b>036</b>	129	59	147	67	124	56	141	64	133	60	150	68	138	63	156	71	38.75	984	36.75	933	22.75	578	24.5	622
<b>048</b>	132	60	149	68	126	57	143	65	135	61	152	69	140	64	159	72	38.75	984	36.75	933	22.75	578	24.5	622
<b>060</b>	162	73	182	83	146	66	164	74	134	61	151	68	149	68	167	76	40	1016	38	965	24.5	622	26	660
<b>074</b>	153	69	170	77	153	69	170	77	167	76	186	84	167	76	186	84	38	965	36	914	22.5	572	24	610

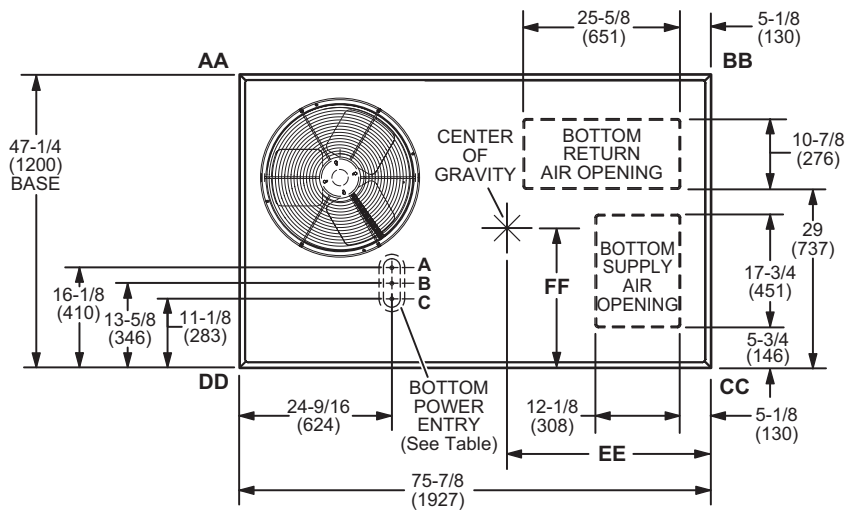
Base Unit - The unit with NO OPTIONS.

Max. Unit - The unit with ALL OPTIONS Installed. (Economizer, largest blower motor, etc.).

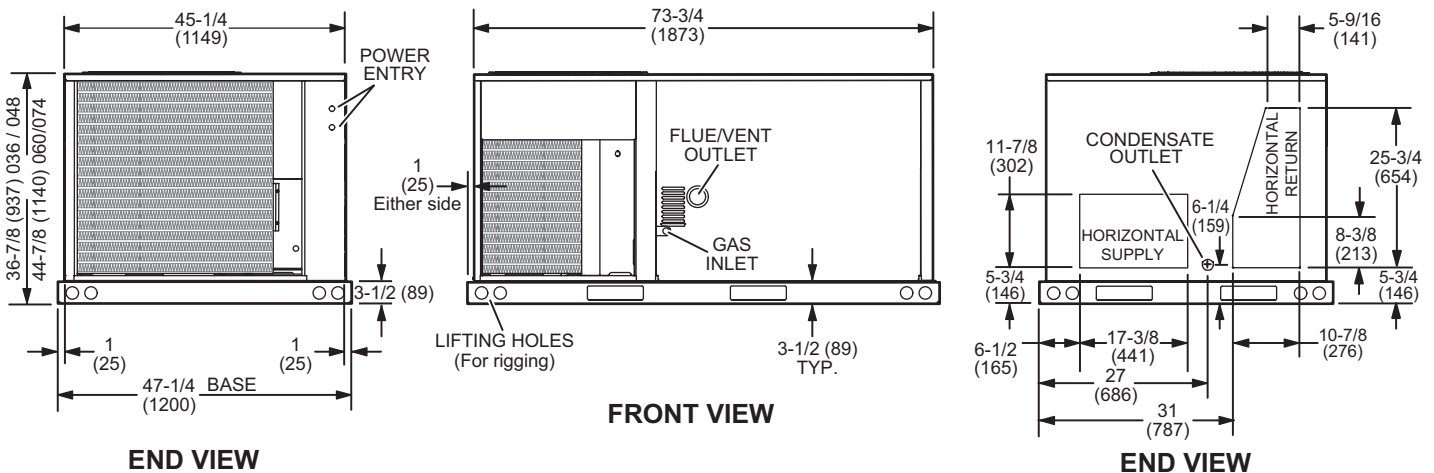
### BOTTOM POWER ENTRY

Holes required for Optional Bottom Power Entry Kit

	Threaded Conduit Fittings (Provided in Kit)	Wire Use	Hole Diameter Required in Unit Base (Max.)
<b>A</b>	1/2	ACC	7/8 (23)
<b>B</b>	1/2	24V	7/8 (23)
<b>C</b>	3/4	POWER	1-1/8 (29)



**TOP VIEW (Base)**



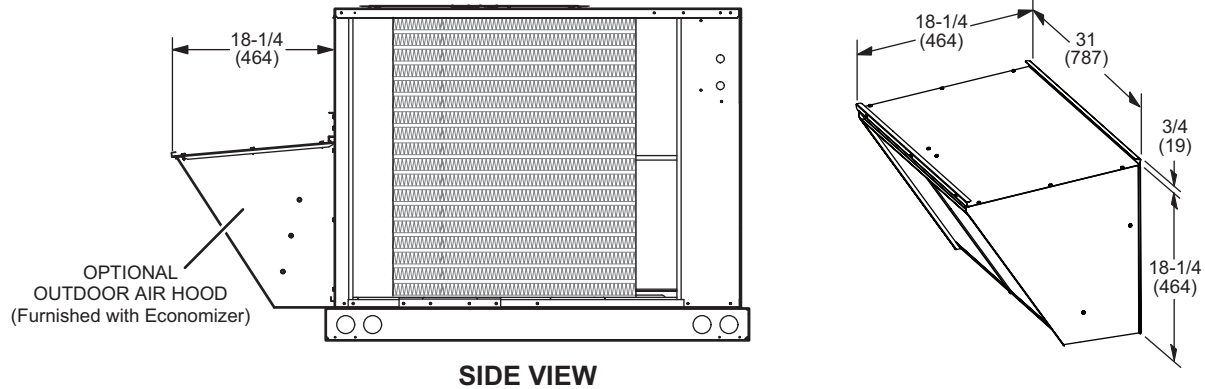
**END VIEW**

**FRONT VIEW**

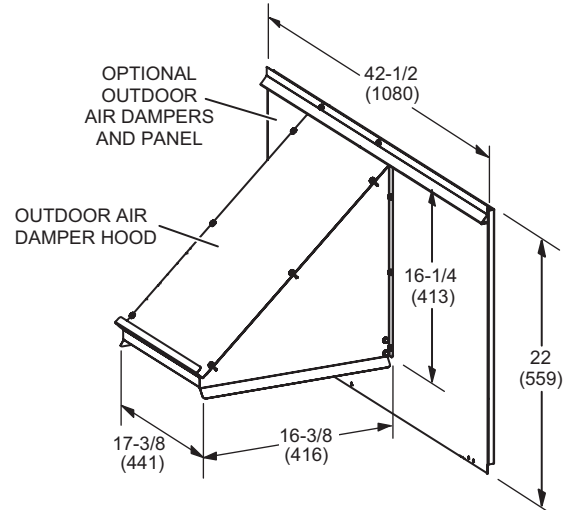
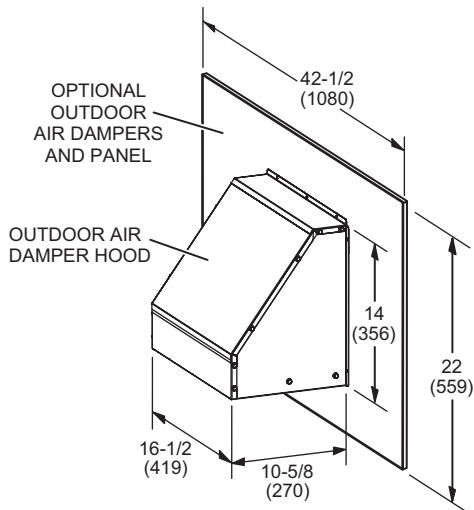
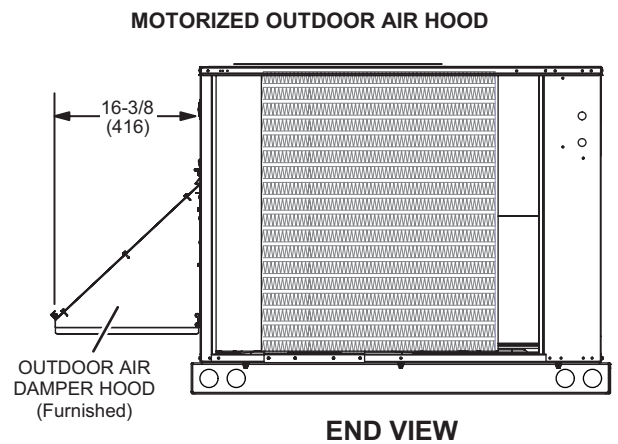
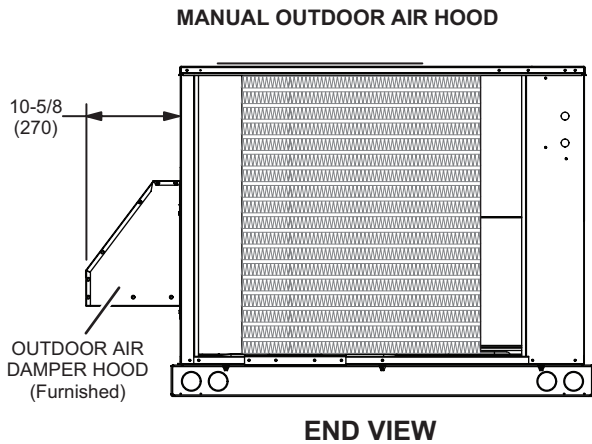
**END VIEW**

**DIMENSIONS - ACCESSORIES - INCHES (MM)**

**OUTDOOR AIR HOOD DETAIL FOR OPTIONAL ECONOMIZER  
(Downflow Applications)**

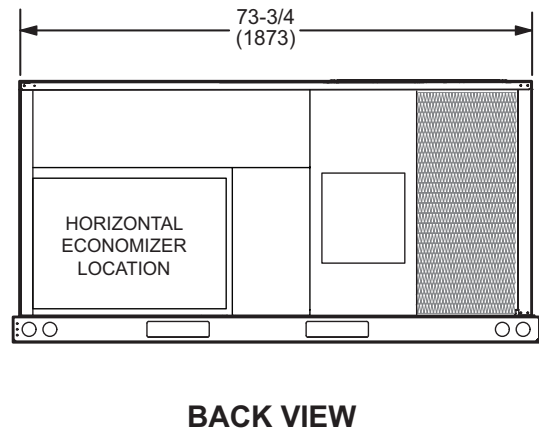
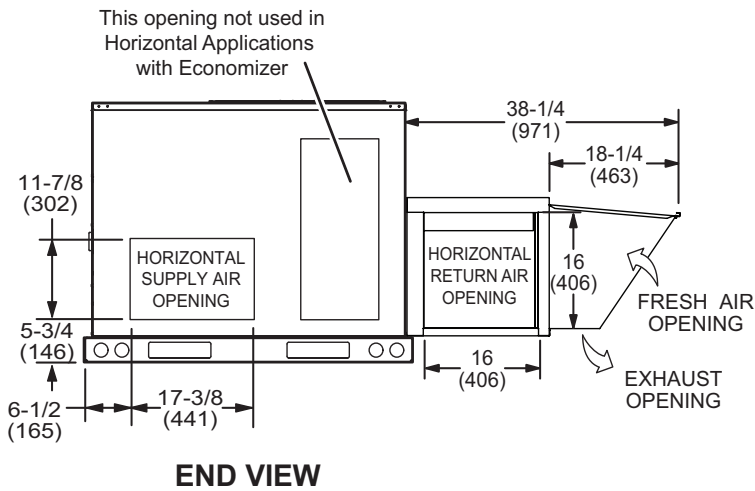
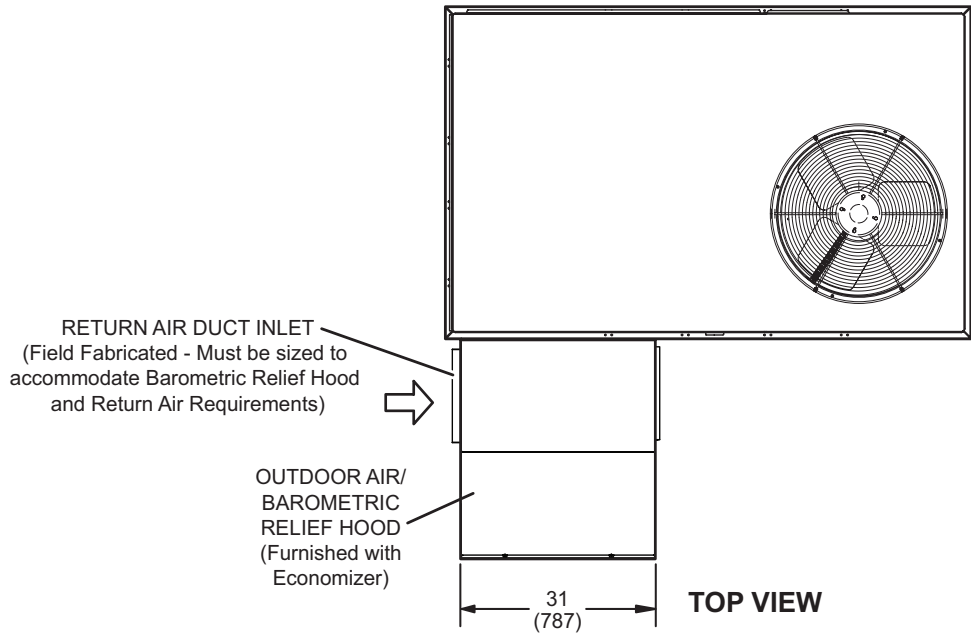


**OUTDOOR AIR DAMPER HOOD DETAIL (Downflow or Horizontal Applications)**



**DIMENSIONS - ACCESSORIES - INCHES (MM)**

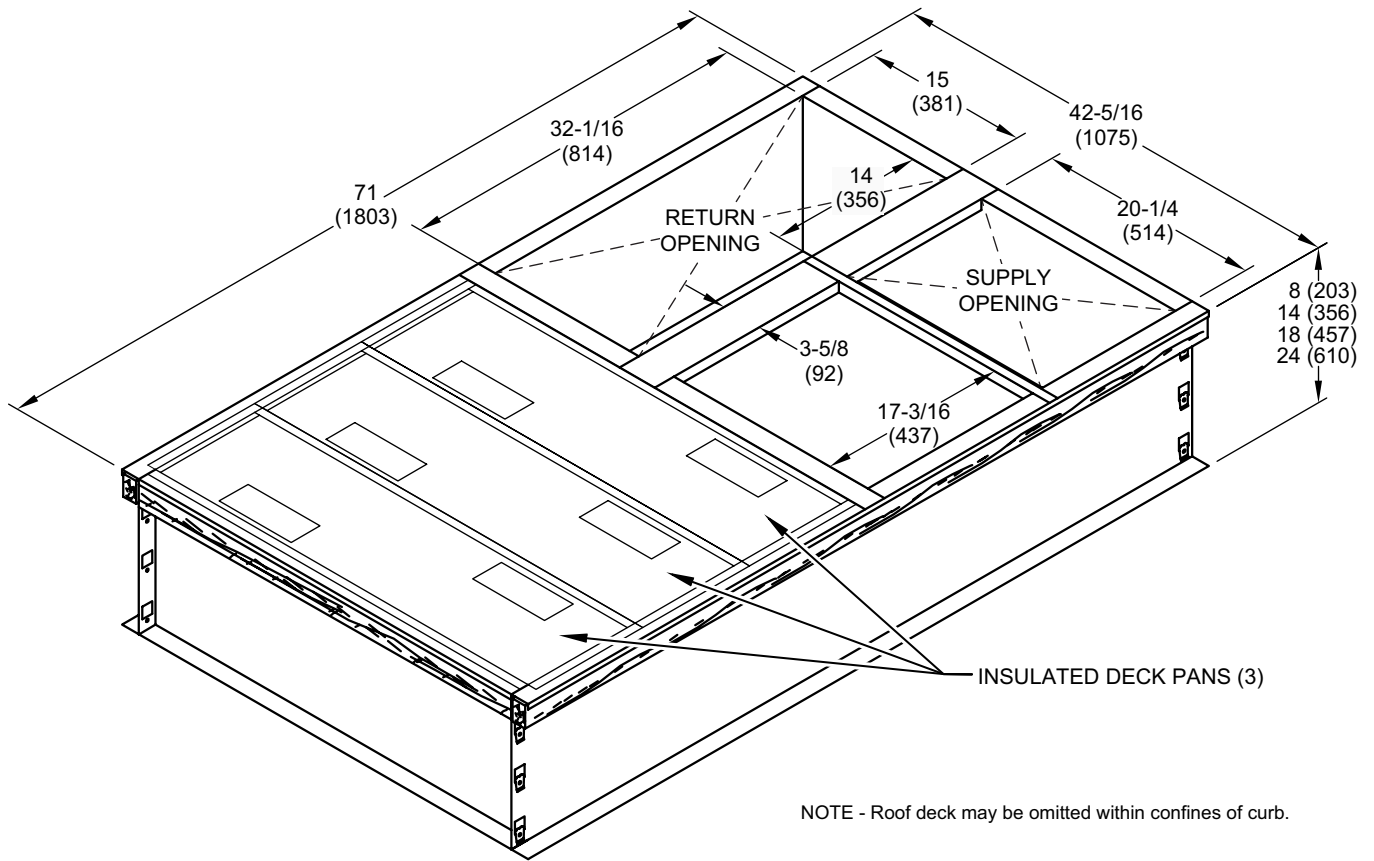
**OUTDOOR AIR HOOD DETAIL WITH OPTIONAL ECONOMIZER AND BAROMETRIC RELIEF DAMPERS  
(Horizontal Applications)**



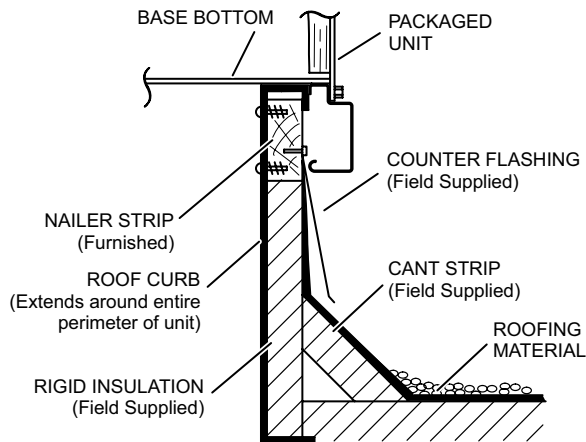
Note - Return Air Duct and Transition must be supported.

# DIMENSIONS - ACCESSORIES - INCHES (MM)

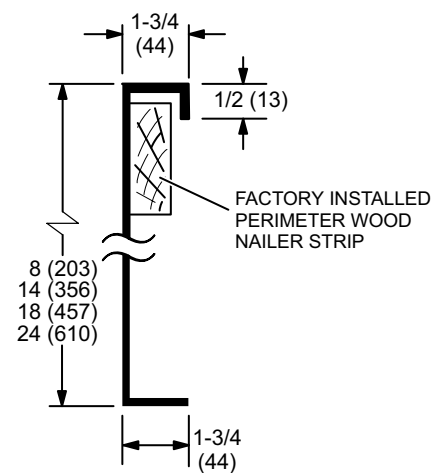
## HYBRID ROOF CURBS - DOUBLE DUCT OPENING



### TYPICAL FLASHING DETAIL FOR ROOF CURB



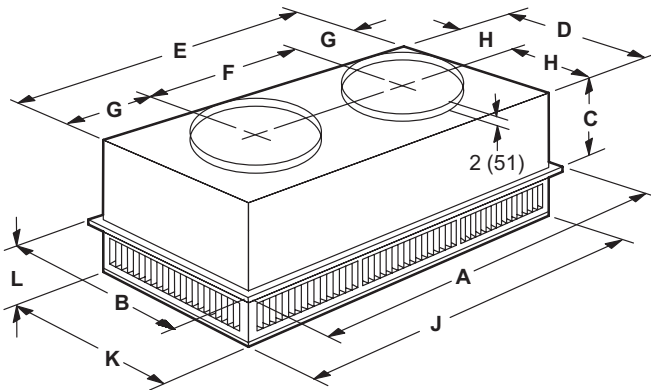
### DETAIL ROOF CURB



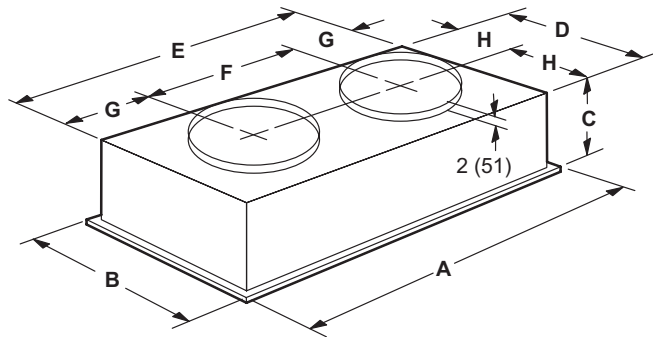
## DIMENSIONS - ACCESSORIES - INCHES (MM)

### COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

#### STEP-DOWN CEILING DIFFUSER



#### FLUSH CEILING DIFFUSER



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

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









## REVISIONS

Section	Description
Approvals	Added statements about South Coast Air Quality Management District (SCAQMD) and San Joaquin Valley Air Pollution Control District (SJVAPCD) rules for gas units with more than 14 ng/J ratings.
Optional Conventional Temperature Control Systems	Added new BACnet Compatible Programmable Thermostat With Reheat Function.
Options/Accessories	Removed Novar 2051 Control option. Removed UVC Light option.



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