

PRODUCT SPECIFICATIONS

Bulletin No. ZGA/ZGB-036-074 (03/2016)

**Z-SERIES™**  
DESIGNED TO FIT. FAST.



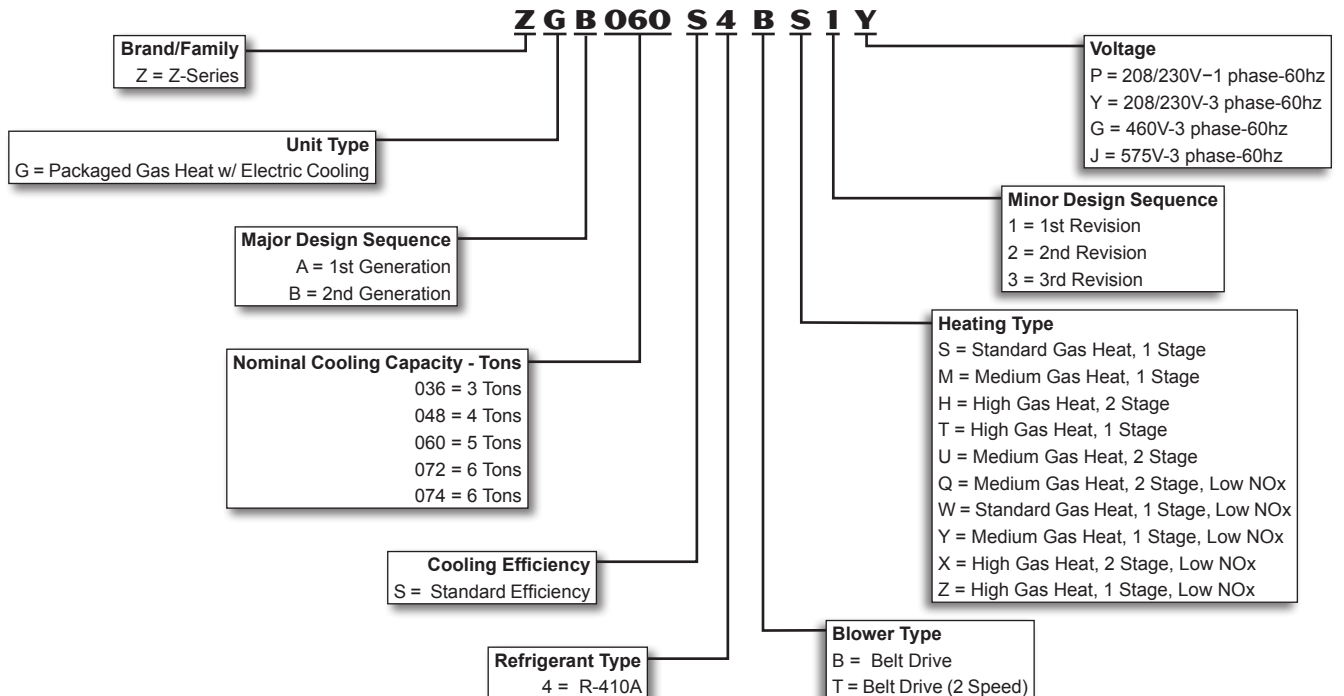
**ASHRAE 90.1  
COMPLIANT**

**3 to 6 Tons**

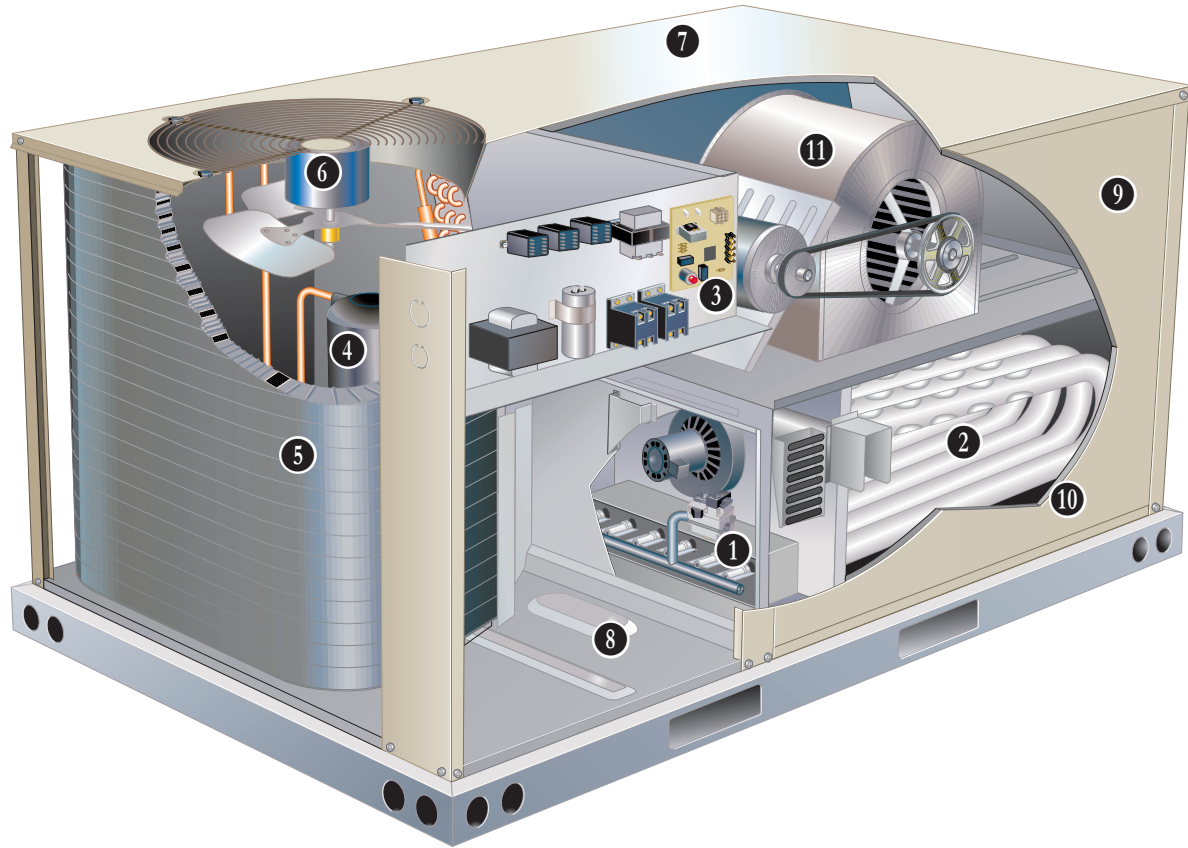
**Net Cooling Capacity – 34,600 to 68,000 Btuh**

**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 all ZGA and ZGB036 through 060 models.
- **Two-Stage Scroll Compressor** - Furnished on all ZGB074 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.

ISO 9001 Registered Manufacturing Quality System.

Models equipped with low NO<sub>x</sub> gas heat meet the California Nitrogen Oxides (NO<sub>x</sub>) Standards that apply in the South Coast Air Quality Management District and the San Francisco Bay Area Air Quality Management District.

### 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> versions.

### 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> 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.

## FEATURES AND BENEFITS

### 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 072 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 (All ZGA and ZCB036 to 060 Models)

Accurately meters refrigerant in system.

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

#### Thermal Expansion Valve (ZGB074 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.

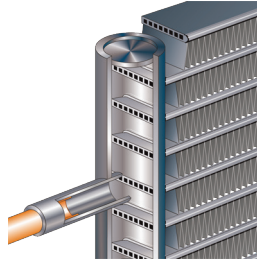
Eco-last™ Coil System Features:

- 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.

### 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.

## 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.

#### **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.

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**

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: 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)**

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)**

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



## OPTIONS / ACCESSORIES

| Item   | Catalog No.  | Unit Model No.    |                   |                   |                |            |   |
|--|--|-------------------|-------------------|-------------------|----------------|------------|---|
|  |  | ZGA<br>ZGB<br>036 | ZGA<br>ZGB<br>048 | ZGA<br>ZGB<br>060 | ZGA<br>072     | ZGB<br>074 |   |
| <b>COOLING SYSTEM</b>                              |  |                   |                   |                   |                |            |   |
| Condensate Drain Trap                              | PVC - C1TRAP20AD2  | <b>76W26</b>      | X                 | X                 | X              | X          | X |
|  | Copper - C1TRAP10AD2   | <b>76W27</b>      | X                 | X                 | X              | X          | X |
| Drain Pan Overflow Switch                          | Z1SNSR90A1   | <b>99W59</b>      | X                 | X                 | X              | X          | X |
| Low Ambient Kit                                    | Z1SNSR33A-1  | <b>99W67</b>      | X                 | X                 | X              | X          | X |
| <b>HEATING SYSTEM</b>                              |  |                   |                   |                   |                |            |   |
| Gas Heat Input                                     | Standard 1-Stage - 65 kBtuh input  | Factory           | O                 | O                 | O              | O          | O |
|  | Medium 1-Stage - 108 kBtuh input   | Factory           | O                 | O                 | O              | O          | O |
|  | Medium 2-Stage - 65/108 kBtuh input  | Factory           | O                 | O                 | O              | O          | O |
|  | High 1-Stage - 150 kBtuh input   | Factory           |                   | O                 | O              | O          | O |
|  | High 2-Stage - 113/150 kBtuh input   | Factory           |                   | O                 | O              | O          | O |
| LPG/Propane Conversion Kits                        | For 1-Stage models - Z1PROP10A-1   | <b>14N20</b>      | X                 | X                 | X              | X          | X |
|  | For 2-Stage models - Z1PROP20A-1   | <b>14N21</b>      | X                 | X                 | X              | X          | X |
| Vertical Vent Extension Kit                        | C1EXTN20FF1  | <b>31W62</b>      | X                 | X                 | X              | X          | X |
| <b>BLOWER - SUPPLY AIR</b>                         |  |                   |                   |                   |                |            |   |
| Motors   | Belt Drive - 0.75 hp (208/230V-1ph) Standard Efficiency                        | Factory           | <sup>3</sup> O    | <sup>3</sup> O    | <sup>3</sup> O |            |   |
|  | Belt Drive - 1 hp (208/230V, 460V, 575V-3ph) Standard Efficiency               | Factory           | O                 | O                 | O              | O          |   |
|  | Belt Drive - 1.5 hp (208/230V-1ph or 3 ph, 460V, 575V-3ph) Standard Efficiency | Factory           | O                 | O                 | O              | O          |   |
|  | Belt Drive - 2 hp (208/230V, 460V, 575V-3ph) Standard Efficiency               | Factory           |                   |                   |                | O          |   |
|  | Belt Drive - 2 hp (208/230V, 460V, 575V-3ph) (2 Speed)                         | Factory           |                   |                   |                |            | O |
| Drive Kits<br>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          | O |
|  | Kit #ZAA03 - 798-1105 rpm  | Factory           |                   |                   |                | O          | O |
| <sup>2</sup> Kit #ZAA04 - 921-1226 rpm             | Factory  |                   |                   |                   | O              | O          |   |
| <b>CABINET</b>                                     |  |                   |                   |                   |                |            |   |
| Coil/Hail Guards                                   | ZGA/ZGB036, ZGA/ZGB048, ZGA060 models - Z1GARD52A-1                            | <b>12X19</b>      | X                 | X                 | X              |            |   |
|  | ZGA072, ZGB060 and ZGB074 models - Z1GARD52AT1                                 | <b>12X20</b>      |                   |                   | X              | X          | X |
| Corrosion Protection                               |  | Factory           | O                 | O                 | O              | O          | O |
| <b>ELECTRICAL</b>                                  |  |                   |                   |                   |                |            |   |
| Voltage<br>60 hz                                   | 208/230V - 1 phase   | Factory           | <sup>3</sup> O    | <sup>3</sup> O    | <sup>3</sup> O |            |   |
|  | 208/230V - 3 phase   | Factory           | O                 | O                 | O              | O          | O |
|  | 460V - 3 phase   | Factory           | O                 | O                 | O              | O          | O |
|  | 575V - 3 phase   | Factory           | O                 | O                 | O              | O          | O |
| Bottom Power Entry Kit                             | Z1PEKT01A-1  | <b>98W08</b>      | X                 | X                 | X              | X          | X |

<sup>1</sup> 1.5 hp blower motor is required with the ZA05 and ZA06 drive kits.

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

<sup>3</sup> ZGB 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.    |                   |                   |            |            |
|--|----------------------------------|--------------|-------------------|-------------------|-------------------|------------|------------|
|  |                                  |              | ZGA<br>ZGB<br>036 | ZGA<br>ZGB<br>048 | ZGA<br>ZGB<br>060 | ZGA<br>072 | ZGB<br>074 |
| <b>ECONOMIZERS</b>   |                                  |              |                   |                   |                   |            |            |
| <b>Standard Economizer With Outdoor Air Hood (Not for Title 24)</b>  |                                  |              |                   |                   |                   |            |            |
| Standard Economizer (Downflow)<br>Includes Barometric Exhaust Dampers and Exhaust Hood                         | Z1ECON30A-2                      | <b>14D94</b> | OX                | OX                | OX                | OX         | OX         |
| Standard Economizer (Horizontal)<br>Includes Barometric Exhaust Dampers and Exhaust Hood                       | Z1ECON16A-2                      | <b>14D92</b> | X                 | X                 | X                 | X          | X          |
| <b>Standard Economizer Controls (Not for Title 24)</b>   |                                  |              |                   |                   |                   |            |            |
| Single Enthalpy Control  | C1SNSR64FF1                      | <b>53W64</b> | X                 | X                 | X                 | X          | X          |
| <b>High Performance Economizer With Outdoor Air Hood (Approved for California Title 24 Building Standards)</b> |                                  |              |                   |                   |                   |            |            |
| High Performance Economizer (Downflow)<br>Includes Barometric Exhaust Dampers and Exhaust Hood                 | Z1ECON32A-2                      | <b>14D95</b> | OX                | OX                | OX                | OX         | OX         |
| High Performance Economizer (Horizontal)<br>Includes Barometric Exhaust Dampers and Exhaust Hood               | Z1ECON33A-2                      | <b>14D93</b> | X                 | X                 | X                 | X          | X          |
| <b>High Performance Economizer Controls (Not for Title 24)</b>   |                                  |              |                   |                   |                   |            |            |
| Single Enthalpy Control  | C1SNSR61FF1                      | <b>11G21</b> | X                 | X                 | X                 | X          | X          |
| <b>OUTDOOR AIR</b>   |                                  |              |                   |                   |                   |            |            |
| <b>Outdoor Air Dampers With Outdoor Air Hood</b>   |                                  |              |                   |                   |                   |            |            |
| Motorized  | Z1DAMP21A-1                      | <b>95W74</b> | X                 | X                 | X                 | X          | X          |
| Manual   | Z1DAMP11A-1                      | <b>95W73</b> | X                 | X                 | X                 | X          | X          |
| <b>POWER EXHAUST FAN</b>   |                                  |              |                   |                   |                   |            |            |
| Standard Static (Downflow)   | 208/230V-1 or 3ph - Z1PWRE10A-1P | <b>21E01</b> | X                 | X                 | X                 | X          | X          |
|  | 460V-3ph - Z1PWRE10A-1G          | <b>23E01</b> | X                 | X                 | X                 | X          | X          |
| Standard Static (Horizontal)   | 208/230V-1 or 3ph - Z1PWRE15A-1P | <b>24E01</b> | X                 | X                 | X                 | X          | X          |
|  | 460V-3ph - Z1PWRE15A-1G          | <b>28E01</b> | X                 | X                 | X                 | X          | X          |
| 575V Transformer Kit   | 575V-3ph - Z1TRFM20A-1J          | <b>59E02</b> | X                 | 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                     | <b>77N39</b> | X                 | X                 | X                 | X          | X          |
| Sensor - Wall-mount, black plastic case, no display, rated for plenum mounting                                 | C0SNSR53AE1L                     | <b>87N54</b> | X                 | X                 | X                 | X          | X          |
| CO <sub>2</sub> Sensor Duct Mounting Kit - for downflow applications   | C0MISC19AE1                      | <b>85L43</b> | X                 | X                 | X                 | X          | X          |
| Aspiration Box - for duct mounting non-plenum rated CO <sub>2</sub> sensor ( <b>77N39</b> )                    | C0MISC16AE1                      | <b>90N43</b> | X                 | X                 | X                 | X          | X          |
| <b>ROOF CURBS</b>  |                                  |              |                   |                   |                   |            |            |
| <b>Hybrid Roof Curbs, Downflow</b>   |                                  |              |                   |                   |                   |            |            |
| 8 in. height   | Z1CURB70A-1                      | <b>11F76</b> | X                 | X                 | X                 | X          | X          |
| 14 in. height  | Z1CURB71A-1                      | <b>11F77</b> | X                 | X                 | X                 | X          | X          |
| 18 in. height  | Z1CURB72A-1                      | <b>11F78</b> | X                 | X                 | X                 | X          | X          |
| 24 in. height  | Z1CURB73A-1                      | <b>11F79</b> | X                 | X                 | X                 | X          | X          |
| <b>CEILING DIFFUSERS</b>   |                                  |              |                   |                   |                   |            |            |
| Step-Down - Order one  | RTD9-65-R                        | <b>27G87</b> | X                 | X                 | X                 |            |            |
|  | RTD11-95                         | <b>29G04</b> |                   |                   |                   | X          | X          |
| Flush - Order one  | FD9-65-R                         | <b>27G86</b> | X                 | X                 | X                 |            |            |
|  | FD11-95                          | <b>29G08</b> |                   |                   |                   | X          | X          |
| NOTE - Ceiling Diffuser Transitions are not furnished and must be field fabricated.                            |                                  |              |                   |                   |                   |            |            |
| 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 - ZGA

| General Data  |  | Nominal Tonnage | 3 Ton  | 4 Ton   | 5 Ton  | 6 Ton   |
|---|--|-----------------|--|---|--|---|
| Model No.   |  |                 | ZGA036S4B  | ZGA048S4B   | ZGA060S4B  | ZGA072S4B   |
| Efficiency Type   |  |                 | Standard   | Standard  | Standard   | Standard  |
| Blower Type   |  |                 | Single Speed Belt Drive                                | Single Speed Belt Drive   | Single Speed Belt Drive  | Single Speed Belt Drive   |
| <b>Cooling Performance</b>                              | Gross Cooling Capacity - Btuh                |                 | 36,100   | 47,000  | 58,900   | 69,700  |
|   | Net Cooling Capacity - Btuh                  |                 | <sup>1</sup> 34,600                                    | <sup>1</sup> 45,000   | <sup>1</sup> 57,000  | <sup>2</sup> 68,000   |
|   | AHRI Rated Air Flow - cfm                    |                 | 1200   | 1550  | 1650   | 2025  |
|   | <sup>3</sup> Sound Rating Number (SRN) (dBA) |                 | 77   | 80  | 83   | 84  |
|   | Total Unit Power - kW                        |                 | 3.0  | 4.3   | 5.3  | 6.1   |
|   | SEER (Btuh/Watt)                             |                 | <sup>1</sup> 13.00                                     | <sup>1</sup> 13.00  | <sup>1</sup> 13.00   | ---   |
|   | IEER (Btuh/Watt)                             |                 | ---  | ---   | ---  | <sup>2</sup> 12.00  |
|   | EER (Btuh/Watt)                              |                 | <sup>1</sup> 11.50                                     | <sup>1</sup> 10.60  | <sup>1</sup> 10.70   | <sup>2</sup> 11.20  |
| <b>Refrigerant</b>                                      | Type   |                 | R-410A   | R-410A  | R-410A   | R-410A  |
|   | Charge Furnished                             |                 | 4 lbs. 1 oz.   | 4 lbs. 6 oz.  | 5 lbs. 6 oz.   | 7 lbs. 0 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   | Scroll  |
| <b>Outdoor Coil</b>                                     | Net face area - sq. ft.                      |                 | 12.8   | 12.8  | 15.2   | 19.9  |
|   | Number of rows                               |                 | 1  | 1   | 1  | 1   |
|   | Fins / inch                                  |                 | 23   | 23  | 23   | 23  |
| <b>Outdoor Coil Fan</b>                                 | Motor HP                                     |                 | (1) 1/6 (PSC)  | (1) 1/4 (PSC)   | (1) 1/3 (PSC)  | (1) 1/3 (PSC)   |
|   | Motor rpm                                    |                 | 825  | 825   | 1075   | 1075  |
|   | Total motor watts                            |                 | 200  | 310   | 360  | 350   |
|   | Diameter (No.) - in.                         |                 | (1) 22   | (1) 22  | (1) 22   | (1) 22  |
|   | Number of blades                             |                 | 4  | 4   | 3  | 3   |
|   | Total air volume - cfm                       |                 | 2700   | 3300  | 3800   | 4270  |
| <b>Indoor Coil</b>                                      | Net face area - sq. ft.                      |                 | 8.4  | 8.4   | 8.4  | 10.8  |
|   | Tube diameter - in.                          |                 | 3/8  | 3/8   | 3/8  | 3/8   |
|   | Number of rows                               |                 | 2  | 2   | 3  | 3   |
|   | Fins per inch                                |                 | 14   | 14  | 14   | 14  |
|   | Drain Connection (no. and size) - in.        |                 | (1) 1 NPT  | (1) 1 NPT   | (1) 1 NPT  | (1) 1 NPT   |
|   | Expansion device type                        |                 | Fixed Orifice  | Fixed Orifice   | Fixed Orifice  | Fixed Orifice   |
| <sup>3</sup> <b>Indoor Blower &amp; Drive Selection</b> | Nominal Motor HP                             |                 | 1 hp, 1.5 hp   | 1 hp, 1.5 hp  | 1 hp, 1.5 hp   | 1 hp, 1.5 hp, 2 hp  |
|   | Maximum Usable Motor HP                      |                 | 1.15 hp, 1.7 hp  | 1.15 hp, 1.7 hp   | 1.15 hp, 1.7 hp  | 1.15 hp, 1.7 hp, 2.3 hp   |
|   | Available Drive Kits                         |                 | Kit #ZA01<br>678-1035 rpm<br>Kit #ZA04<br>964-1471 rpm | Kit #ZA02<br>803-1226 rpm<br><sup>4</sup> Kit #ZA05<br>1098-1490 rpm    | Kit #ZA03<br>906-1383 rpm<br><sup>4</sup> Kit #ZA06<br>1262-1634 rpm | Kit #ZAA02<br>632-875 rpm<br>Kit #ZAA03<br>798-1105 rpm<br><sup>5</sup> ZAA04<br>921-1228 rpm |
| <b>Wheel nominal diameter x width - in.</b>             |  |                 | 10 x 10  | 10 x 10   | 10 x 10  | 15 X 9  |
| <b>Filters</b>  | Type   |                 | Disposable   |   |  |   |
|   | Number and size - in.                        |                 | (4) 14 x 20 x 2  |   |  | (2) 16 X 20 X 2<br>(2) 20 X 20 X 2  |
| <b>Electrical Characteristics - 60 Hz</b>               |  |                 | 208/230V,<br>460V & 575V<br>3 phase                    | 208/230V<br>460V & 575V<br>3 phase                                      | 208/230V<br>460V & 575V<br>3 phase                                   | 208/230V<br>460V & 575V<br>3 phase  |

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

<sup>1</sup>, <sup>2</sup> AHRI Certified to AHRI Standard <sup>1</sup> 210/240 or <sup>2</sup> 340/360: 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

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

<sup>5</sup> 2 hp blower motor is required with the ZAA04 drive kit.

## SPECIFICATIONS - ZGB

| General Data  |  | Nominal Tonnage | 3 Ton  | 4 Ton   | 5 Ton  | 6 Ton  |
|---|--|-----------------|--|---|--|--|
|   |  | Model No.       | ZGB036S4B  | ZGB048S4B   | ZGB060S4B  | ZGB074S4T  |
|   |  | Efficiency Type | Standard   | Standard  | Standard   | Standard   |
|   |  | Blower Type     | Single Speed Belt Drive  | Single Speed Belt Drive   | Single Speed Belt Drive  | Two Speed Belt Drive   |
| <b>Cooling Performance</b>                              | Gross Cooling Capacity - Btuh                |                 | 36,200   | 46,700  | 58,300   | 68,500   |
|   | Net Cooling Capacity - Btuh                  |                 | <sup>1</sup> 35,000  | <sup>1</sup> 45,500   | <sup>1</sup> 57,000  | <sup>2</sup> 67,000  |
|   | AHRI Rated Air Flow - cfm                    |                 | 1190   | 1380  | 1725   | 2200   |
|   | <sup>3</sup> Sound Rating Number (SRN) (dBA) |                 | 77   | 80  | 78   | 84   |
|   | Total Unit Power - kW                        |                 | 3.0  | 4.1   | 5.1  | <sup>2</sup> 6.0   |
|   | SEER (Btuh/Watt)                             |                 | <sup>1</sup> 14.00   | <sup>1</sup> 14.00  | <sup>1</sup> 14.00   | ---  |
|   | IEER (Btuh/Watt)                             |                 | ---  | ---   | ---  | <sup>2</sup> 15.00   |
|   | EER (Btuh/Watt)                              |                 | <sup>1</sup> 11.70   | <sup>1</sup> 11.20  | <sup>1</sup> 11.20   | <sup>2</sup> 11.20   |
| <b>Refrigerant</b>                                      | Type   |                 | R-410A   | R-410A  | R-410A   | R-410A   |
|   | Charge Furnished                             |                 | 5 lbs. 2 oz.   | 5 lbs. 4 oz.  | 7 lbs. 5 oz.   | 7 lbs. 3 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   | Two-Stage Scroll   |
| <b>Outdoor Coil</b>                                     | Net face area - sq. ft.                      |                 | 15.2   | 15.2  | 19.9   | 19.9   |
|   | Number of rows                               |                 | 1  | 1   | 1  | 1  |
|   | Fins / inch                                  |                 | 23   | 23  | 23   | 23   |
| <b>Outdoor Coil Fan</b>                                 | Motor HP                                     |                 | (1) 1/4  | (1) 1/4   | (1) 1/4  | (1) 1/3  |
|   | Motor rpm                                    |                 | 825  | 825   | 825  | 1075   |
|   | Total motor watts                            |                 | 310  | 310   | 310  | 365  |
|   | Diameter (No.) - in.                         |                 | (1) 22   | (1) 22  | (1) 22   | (1) 22   |
|   | Number of blades                             |                 | 4  | 4   | 4  | 3  |
|   | Total air volume - cfm                       |                 | 3700   | 3700  | 3700   | 4270   |
| <b>Indoor Coil</b>                                      | Net face area - sq. ft.                      |                 | 8.40   | 8.4   | 10.8   | 10.8   |
|   | Tube diameter - in.                          |                 | 3/8  | 3/8   | 3/8  | 3/8  |
|   | Number of rows                               |                 | 3  | 3   | 3  | 3  |
|   | Fins per inch                                |                 | 14   | 14  | 14   | 14   |
|   | Drain Connection (no. and size) - in.        |                 | (1) 1 NPT  | (1) 1 NPT   | (1) 1 NPT  | (1) 1 NPT  |
|   | Expansion device type                        |                 | Fixed Orifice  | Fixed Orifice   | Fixed Orifice  | Balance Port TXV, removable head                                       |
|   |  |                 |  |   |  |  |
| <b><sup>4</sup> Indoor Blower &amp; Drive Selection</b> | Nominal Motor HP                             |                 | 0.75 hp, <sup>5</sup> 1 hp, 1.5 hp                             | 0.75 hp, <sup>5</sup> 1 hp, 1.5 hp                                      | 0.75 hp, <sup>5</sup> 1 hp, 1.5 hp                                   | 2 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  | 2.3 hp   |
|   | Available Drive Kits                         |                 | Kit #ZA01<br>678-1035 rpm<br>Kit #ZA04<br>964-1471 rpm         | Kit #ZA02<br>803-1226 rpm<br><sup>6</sup> Kit #ZA05<br>1098-1490 rpm    | Kit #ZA03<br>906-1383 rpm<br><sup>6</sup> Kit #ZA06<br>1262-1634 rpm | ZAA02<br>632-875 rpm<br>ZAA03<br>798-1105 rpm<br>ZAA04<br>921-1228 rpm |
| <b>Wheel nominal diameter x width - in.</b>             |  |                 | 10 x 10  | 10 x 10   | 10 x 10  | 15 x 9   |
| <b>Filters</b>  | Type   |                 | Disposable   |   |  |  |
|   | Number and size - in.                        |                 | (4) 14 x 20 x 2  |   | (2) 16 X 20 X 2<br>(2) 20 X 20 X 2                                   | (2) 20 x 20 x 2<br>(2) 16 x 20 x 2                                     |
| <b>Electrical Characteristics - 60 Hz</b>               |  |                 | 208/230V<br>1 phase<br><br>208/230V,<br>460V & 575V<br>3 phase | 208/230V,<br>1 phase<br><br>208/230V<br>460V & 575V<br>3 phase          | 208/230V,<br>1 phase<br><br>208/230V<br>460V & 575V<br>3 phase       | 208/230V,<br>460V<br>or<br>575V – 60 hertz<br>3 phase                  |

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

<sup>1</sup>, <sup>2</sup> AHRI Certified to AHRI Standard <sup>1</sup> 210/240 or <sup>2</sup> 340/360: 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

<sup>3</sup> Sound Rating Number (SRN) rated in accordance with test conditions included in ANSI/AHRI Standard 270-2008.

<sup>4</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>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 - STANDARD GAS HEAT - THREE PHASE MODELS

| Model No.                            | 036,<br>048,<br>060    | 072,<br>074 | 036,<br>048,<br>060 | 072,<br>074 | 036,<br>048,<br>060 | 072,<br>074 | 048,<br>060    | 072,<br>074 | 048,<br>060    | 072,<br>074 |
|--------------------------------------|------------------------|-------------|---------------------|-------------|---------------------|-------------|----------------|-------------|----------------|-------------|
| Heat Input Type                      | Standard (1 Stage)     |             | Medium (1 Stage)    |             | Medium (2 Stage)    |             | High (1 Stage) |             | High (2 Stage) |             |
| 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,<br>048,<br>060    | 072,<br>074 | 036,<br>048,<br>060 | 072,<br>074 | 036,<br>048,<br>060 | 072,<br>074 | 048,<br>060    | 072,<br>074 | 048,<br>060    | 072,<br>074 |
|---|------------------------|-------------|---------------------|-------------|---------------------|-------------|----------------|-------------|----------------|-------------|
| Heat Input Type                               | Standard (1 Stage)     |             | Medium (1 Stage)    |             | Medium (2 Stage)    |             | High (1 Stage) |             | High (2 Stage) |             |
| 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 |



## RATINGS - ZGB

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 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                          | 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 |
| 71°F                          | 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 |
|                               | 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 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                          | 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 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                          | 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 - ZGB

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 ZGB074S4 (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 ZGB074S4 (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 - BELT DRIVE - ZGA036

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

### DOWNFLOW

| Air Volume<br>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  |
|                   | Field Furnished            |      |      |      | Kit Z01 |      |      |      |      |      |      |      |      |      |      |      |
| 900               | 566                        | 0.16 | 631  | 0.18 | 699     | 0.19 | 768  | 0.21 | 836  | 0.22 | 901  | 0.25 | 961  | 0.27 | 1016 | 0.29 |
| 1000              | 591                        | 0.18 | 656  | 0.20 | 724     | 0.21 | 793  | 0.23 | 859  | 0.25 | 922  | 0.27 | 979  | 0.30 | 1032 | 0.33 |
| 1100              | 618                        | 0.20 | 684  | 0.22 | 752     | 0.24 | 819  | 0.26 | 883  | 0.28 | 944  | 0.31 | 998  | 0.34 | 1049 | 0.37 |
| 1200              | 648                        | 0.23 | 715  | 0.25 | 782     | 0.27 | 847  | 0.29 | 910  | 0.32 | 967  | 0.35 | 1020 | 0.38 | 1068 | 0.42 |
| 1300              | 681                        | 0.26 | 748  | 0.28 | 814     | 0.30 | 878  | 0.33 | 937  | 0.36 | 992  | 0.39 | 1043 | 0.43 | 1089 | 0.47 |
| 1400              | 718                        | 0.29 | 783  | 0.32 | 848     | 0.34 | 909  | 0.37 | 966  | 0.41 | 1018 | 0.44 | 1067 | 0.48 | 1112 | 0.52 |
| 1500              | 757                        | 0.33 | 821  | 0.36 | 883     | 0.39 | 941  | 0.42 | 995  | 0.46 | 1046 | 0.50 | 1092 | 0.54 | 1136 | 0.57 |

| Air Volume<br>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  |
|                   | Kit Z04                    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 900               | 1067                       | 0.32 | 1115 | 0.35 | 1161 | 0.37 | 1205 | 0.40 | 1247 | 0.43 | 1287 | 0.47 | 1326 | 0.50 | 1365 | 0.53 |
| 1000              | 1081                       | 0.36 | 1128 | 0.39 | 1173 | 0.41 | 1216 | 0.44 | 1258 | 0.48 | 1297 | 0.51 | 1336 | 0.54 | 1374 | 0.58 |
| 1100              | 1097                       | 0.40 | 1143 | 0.43 | 1187 | 0.46 | 1229 | 0.49 | 1270 | 0.52 | 1309 | 0.56 | 1347 | 0.59 | 1384 | 0.63 |
| 1200              | 1115                       | 0.45 | 1159 | 0.48 | 1202 | 0.51 | 1244 | 0.54 | 1284 | 0.58 | 1323 | 0.61 | 1360 | 0.65 | 1397 | 0.69 |
| 1300              | 1134                       | 0.50 | 1177 | 0.53 | 1219 | 0.56 | 1260 | 0.60 | 1300 | 0.63 | 1338 | 0.67 | 1375 | 0.71 | 1411 | 0.75 |
| 1400              | 1155                       | 0.55 | 1197 | 0.59 | 1238 | 0.62 | 1278 | 0.66 | 1317 | 0.70 | 1354 | 0.74 | 1391 | 0.78 | 1426 | 0.82 |
| 1500              | 1177                       | 0.61 | 1218 | 0.65 | 1258 | 0.68 | 1298 | 0.72 | 1336 | 0.76 | 1373 | 0.81 | 1409 | 0.85 | 1443 | 0.89 |

### HORIZONTAL

| Air Volume<br>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  |
|                   | Field Furnished            |      |      |      | Kit Z01 |      |      |      |      |      |      |      |      |      |      |      |
| 900               | 566                        | 0.13 | 634  | 0.16 | 704     | 0.18 | 773  | 0.20 | 839  | 0.23 | 902  | 0.25 | 961  | 0.28 | 1016 | 0.31 |
| 1000              | 590                        | 0.16 | 658  | 0.18 | 728     | 0.20 | 795  | 0.23 | 860  | 0.25 | 920  | 0.28 | 977  | 0.31 | 1030 | 0.34 |
| 1100              | 615                        | 0.18 | 685  | 0.20 | 754     | 0.23 | 820  | 0.26 | 883  | 0.29 | 941  | 0.32 | 995  | 0.35 | 1046 | 0.38 |
| 1200              | 644                        | 0.21 | 714  | 0.23 | 782     | 0.26 | 847  | 0.29 | 908  | 0.33 | 963  | 0.36 | 1015 | 0.39 | 1064 | 0.42 |
| 1300              | 676                        | 0.24 | 746  | 0.27 | 814     | 0.30 | 876  | 0.33 | 934  | 0.37 | 987  | 0.41 | 1037 | 0.44 | 1083 | 0.47 |
| 1400              | 713                        | 0.28 | 782  | 0.31 | 847     | 0.35 | 907  | 0.38 | 962  | 0.42 | 1013 | 0.45 | 1060 | 0.49 | 1105 | 0.52 |
| 1500              | 755                        | 0.33 | 821  | 0.36 | 883     | 0.39 | 939  | 0.43 | 991  | 0.47 | 1039 | 0.50 | 1085 | 0.54 | 1128 | 0.57 |

| Air Volume<br>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  |
|                   | Kit Z04                    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 900               | 1068                       | 0.33 | 1118 | 0.36 | 1165 | 0.38 | 1211 | 0.41 | 1254 | 0.44 | 1294 | 0.47 | 1332 | 0.50 | 1369 | 0.54 |
| 1000              | 1080                       | 0.37 | 1128 | 0.39 | 1175 | 0.42 | 1219 | 0.45 | 1262 | 0.48 | 1302 | 0.51 | 1340 | 0.55 | 1377 | 0.58 |
| 1100              | 1094                       | 0.41 | 1141 | 0.43 | 1186 | 0.46 | 1230 | 0.49 | 1272 | 0.52 | 1311 | 0.56 | 1349 | 0.60 | 1386 | 0.64 |
| 1200              | 1110                       | 0.45 | 1155 | 0.48 | 1200 | 0.51 | 1243 | 0.54 | 1284 | 0.58 | 1323 | 0.61 | 1361 | 0.66 | 1398 | 0.70 |
| 1300              | 1128                       | 0.50 | 1172 | 0.53 | 1215 | 0.56 | 1258 | 0.59 | 1298 | 0.63 | 1337 | 0.67 | 1375 | 0.72 | 1411 | 0.76 |
| 1400              | 1148                       | 0.55 | 1191 | 0.58 | 1233 | 0.62 | 1274 | 0.65 | 1314 | 0.69 | 1353 | 0.74 | 1391 | 0.79 | 1427 | 0.83 |
| 1500              | 1170                       | 0.61 | 1211 | 0.64 | 1252 | 0.68 | 1293 | 0.72 | 1333 | 0.76 | 1371 | 0.81 | 1408 | 0.86 | 1444 | 0.91 |

# BLOWER DATA - BELT DRIVE - ZGA048

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

## DOWNFLOW

| Air Volume<br>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  |
|                   | Field Furnished            |      |      |      |      |      | Kit Z02 |      |      |      |      |      |      |      |      |      |
| 1200              | 648                        | 0.23 | 715  | 0.25 | 782  | 0.27 | 847     | 0.29 | 910  | 0.32 | 967  | 0.35 | 1020 | 0.38 | 1068 | 0.42 |
| 1300              | 681                        | 0.26 | 748  | 0.28 | 814  | 0.30 | 878     | 0.33 | 937  | 0.36 | 992  | 0.39 | 1043 | 0.43 | 1089 | 0.47 |
| 1400              | 718                        | 0.29 | 783  | 0.32 | 848  | 0.34 | 909     | 0.37 | 966  | 0.41 | 1018 | 0.44 | 1067 | 0.48 | 1112 | 0.52 |
| 1500              | 757                        | 0.33 | 821  | 0.36 | 883  | 0.39 | 941     | 0.42 | 995  | 0.46 | 1046 | 0.50 | 1092 | 0.54 | 1136 | 0.57 |
| 1600              | 798                        | 0.38 | 860  | 0.41 | 919  | 0.44 | 974     | 0.47 | 1026 | 0.51 | 1074 | 0.55 | 1119 | 0.59 | 1161 | 0.63 |
| 1700              | 840                        | 0.43 | 899  | 0.46 | 955  | 0.49 | 1007    | 0.53 | 1057 | 0.57 | 1103 | 0.61 | 1146 | 0.66 | 1187 | 0.70 |
| 1800              | 882                        | 0.48 | 938  | 0.51 | 991  | 0.55 | 1041    | 0.59 | 1088 | 0.63 | 1132 | 0.68 | 1174 | 0.72 | 1214 | 0.77 |
| 1900              | 924                        | 0.54 | 977  | 0.58 | 1027 | 0.62 | 1075    | 0.66 | 1120 | 0.70 | 1163 | 0.75 | 1203 | 0.80 | 1242 | 0.85 |
| 2000              | 965                        | 0.61 | 1016 | 0.65 | 1064 | 0.69 | 1110    | 0.74 | 1153 | 0.79 | 1194 | 0.84 | 1233 | 0.89 | 1271 | 0.95 |

| Air Volume<br>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  |
|                   | Kit Z02                    |      |      |      |      |      | Kit Z05 |      |      |      |      |      |      |      |      |      |
| 1200              | 1115                       | 0.45 | 1159 | 0.48 | 1202 | 0.51 | 1244    | 0.54 | 1284 | 0.58 | 1323 | 0.61 | 1360 | 0.65 | 1397 | 0.69 |
| 1300              | 1134                       | 0.50 | 1177 | 0.53 | 1219 | 0.56 | 1260    | 0.60 | 1300 | 0.63 | 1338 | 0.67 | 1375 | 0.71 | 1411 | 0.75 |
| 1400              | 1155                       | 0.55 | 1197 | 0.59 | 1238 | 0.62 | 1278    | 0.66 | 1317 | 0.70 | 1354 | 0.74 | 1391 | 0.78 | 1426 | 0.82 |
| 1500              | 1177                       | 0.61 | 1218 | 0.65 | 1258 | 0.68 | 1298    | 0.72 | 1336 | 0.76 | 1373 | 0.81 | 1409 | 0.85 | 1443 | 0.89 |
| 1600              | 1201                       | 0.68 | 1241 | 0.71 | 1280 | 0.75 | 1319    | 0.80 | 1357 | 0.84 | 1393 | 0.88 | 1428 | 0.93 | 1462 | 0.97 |
| 1700              | 1226                       | 0.74 | 1265 | 0.79 | 1304 | 0.83 | 1342    | 0.87 | 1378 | 0.92 | 1414 | 0.96 | 1448 | 1.01 | 1482 | 1.05 |
| 1800              | 1253                       | 0.82 | 1291 | 0.87 | 1329 | 0.91 | 1366    | 0.96 | 1402 | 1.01 | 1436 | 1.05 | 1469 | 1.10 | 1502 | 1.14 |
| 1900              | 1280                       | 0.90 | 1318 | 0.95 | 1355 | 1.00 | 1391    | 1.05 | 1426 | 1.10 | 1459 | 1.15 | 1492 | 1.20 | 1524 | 1.24 |
| 2000              | 1309                       | 1.00 | 1346 | 1.05 | 1382 | 1.10 | 1417    | 1.16 | 1451 | 1.21 | 1484 | 1.25 | 1515 | 1.30 | 1547 | 1.35 |

## HORIZONTAL

| Air Volume<br>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  |
|                   | Field Furnished            |      |      |      |      |      | Kit Z02 |      |      |      |      |      |      |      |      |      |
| 1200              | 644                        | 0.21 | 714  | 0.23 | 782  | 0.26 | 847     | 0.29 | 908  | 0.33 | 963  | 0.36 | 1015 | 0.39 | 1064 | 0.42 |
| 1300              | 676                        | 0.24 | 746  | 0.27 | 814  | 0.3  | 876     | 0.33 | 934  | 0.37 | 987  | 0.41 | 1037 | 0.44 | 1083 | 0.47 |
| 1400              | 713                        | 0.28 | 782  | 0.31 | 847  | 0.35 | 907     | 0.38 | 962  | 0.42 | 1013 | 0.45 | 1060 | 0.49 | 1105 | 0.52 |
| 1500              | 755                        | 0.33 | 821  | 0.36 | 883  | 0.39 | 939     | 0.43 | 991  | 0.47 | 1039 | 0.5  | 1085 | 0.54 | 1128 | 0.57 |
| 1600              | 798                        | 0.38 | 860  | 0.41 | 918  | 0.45 | 971     | 0.48 | 1020 | 0.52 | 1067 | 0.55 | 1110 | 0.59 | 1152 | 0.63 |
| 1700              | 842                        | 0.43 | 900  | 0.47 | 954  | 0.5  | 1004    | 0.54 | 1051 | 0.57 | 1095 | 0.61 | 1137 | 0.65 | 1177 | 0.69 |
| 1800              | 885                        | 0.49 | 940  | 0.53 | 990  | 0.56 | 1037    | 0.6  | 1081 | 0.63 | 1124 | 0.67 | 1164 | 0.72 | 1204 | 0.76 |
| 1900              | 928                        | 0.56 | 979  | 0.59 | 1026 | 0.63 | 1070    | 0.67 | 1113 | 0.71 | 1153 | 0.75 | 1193 | 0.79 | 1231 | 0.84 |
| 2000              | 969                        | 0.63 | 1017 | 0.67 | 1062 | 0.7  | 1104    | 0.74 | 1145 | 0.79 | 1184 | 0.83 | 1222 | 0.88 | 1259 | 0.94 |

| Air Volume<br>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  |
|                   | Kit Z02                    |      |      |      |      |      | Kit Z05 |      |      |      |      |      |      |      |      |      |
| 1200              | 1110                       | 0.45 | 1155 | 0.48 | 1200 | 0.51 | 1243    | 0.54 | 1284 | 0.58 | 1323 | 0.61 | 1361 | 0.66 | 1398 | 0.7  |
| 1300              | 1128                       | 0.5  | 1172 | 0.53 | 1215 | 0.56 | 1258    | 0.59 | 1298 | 0.63 | 1337 | 0.67 | 1375 | 0.72 | 1411 | 0.76 |
| 1400              | 1148                       | 0.55 | 1191 | 0.58 | 1233 | 0.62 | 1274    | 0.65 | 1314 | 0.69 | 1353 | 0.74 | 1391 | 0.79 | 1427 | 0.83 |
| 1500              | 1170                       | 0.61 | 1211 | 0.64 | 1252 | 0.68 | 1293    | 0.72 | 1333 | 0.76 | 1371 | 0.81 | 1408 | 0.86 | 1444 | 0.91 |
| 1600              | 1193                       | 0.67 | 1233 | 0.71 | 1273 | 0.75 | 1313    | 0.79 | 1352 | 0.84 | 1390 | 0.89 | 1427 | 0.94 | 1463 | 1    |
| 1700              | 1217                       | 0.73 | 1256 | 0.78 | 1296 | 0.82 | 1335    | 0.87 | 1374 | 0.93 | 1411 | 0.98 | 1447 | 1.03 | 1482 | 1.09 |
| 1800              | 1242                       | 0.81 | 1281 | 0.86 | 1320 | 0.91 | 1359    | 0.96 | 1396 | 1.02 | 1433 | 1.07 | 1468 | 1.13 | 1503 | 1.18 |
| 1900              | 1269                       | 0.9  | 1307 | 0.95 | 1346 | 1.01 | 1383    | 1.06 | 1420 | 1.12 | 1456 | 1.18 | 1491 | 1.23 | 1525 | 1.29 |
| 2000              | 1297                       | 0.99 | 1334 | 1.05 | 1372 | 1.11 | 1409    | 1.17 | 1445 | 1.23 | 1480 | 1.29 | 1514 | 1.34 | 1547 | 1.4  |





## BLOWER DATA - BELT DRIVE - 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 26 for blower motors and drives and wet coil and options/accessory air resistance data.

### DOWNFLOW

| Air Volume<br>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  |
|                   | Field Furnished            |      |      |      | Kit ZA01 |      |      |      |      |      |      |      |      |      |      |      |
| 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<br>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  |
|                   | Kit ZA04                   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 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<br>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  |
|                   | Field Furnished            |      |      |      | Kit ZA01 |      |      |      |      |      |      |      |      |      |      |      |
| 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<br>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  |
|                   | Kit ZA04                   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 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 - BELT DRIVE - ZGB048

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

### DOWNFLOW

| Air Volume<br>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  |
|                   | Field Furnished            |      |      |      |      |      | Kit ZA02 |      |      |      |      |      |      |      |      |      |
| 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<br>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  |
|                   | Kit ZA02                   |      |      |      |      |      | Kit ZA05 |      |      |      |      |      |      |      |      |      |
| 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<br>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  |
|                   | Field Furnished            |      |      |      |      |      | Kit ZA02 |      |      |      |      |      |      |      |      |      |
| 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<br>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  |
|                   | Kit ZA02                   |      |      |      |      |      | Kit ZA05 |      |      |      |      |      |      |      |      |      |
| 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 - BELT DRIVE - 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 26 for blower motors and drives and wet coil and options/accessory air resistance data.

### DOWNFLOW

| Air Volume<br>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  |
|                   | Field Furnished            |      |      |      | Kit ZA03 |      |      |      |      |      |      |      |      |      |      |      |
| 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<br>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  |
|                   | Kit ZA03                   |      |      |      |      |      |      |      | Kit ZA06 |      |      |      |      |      |      |      |
| 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<br>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  |
|                   | Field Furnished            |      |      |      | Kit ZA03 |      |      |      |      |      |      |      |      |      |      |      |
| 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<br>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  |
|                   | Kit ZA03                   |      |      |      |      |      |      |      | Kit ZA06 |      |      |      |      |      |      |      |
| 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

### BELT DRIVE KIT SPECIFICATIONS - ZGA/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 |
| 036       | <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 |                   | ---               |
| 048       | <sup>1</sup> 0.75 | 0.86    | 1             | ---                      | 803 - 1226 | ---        | ---        | 1098 - 1490       |                   |
|           | <sup>2</sup> 1    | 1.15    | 1             | ---                      | 803 - 1226 | ---        | ---        | 1098 - 1490       |                   |
|           | <sup>1</sup> 1.5  | 1.7     | 1             | ---                      | 803 - 1226 | ---        | ---        | 1098 - 1490       | ---               |
| 060       | <sup>1</sup> 0.75 | 0.86    | 1             | ---                      | ---        | 906 - 1383 | ---        | ---               | 1262 - 1634       |
|           | <sup>2</sup> 1    | 1.15    | 1             | ---                      | ---        | 906 - 1383 | ---        | ---               | 1262 - 1634       |
|           | <sup>1</sup> 1.5  | 1.7     | 1             | ---                      | ---        | 906 - 1383 | ---        | ---               | 1262 - 1634       |

### BELT DRIVE KIT SPECIFICATIONS - ZGA072/ZGB074

| Model No. | Motor HP |         | No. of Speeds | Drive Kits and RPM Range |            |                    |
|-----------|----------|---------|---------------|--------------------------|------------|--------------------|
|           | Nominal  | Maximum |               | ZAA02                    | ZAA03      | <sup>4</sup> ZAA04 |
| 072       | 1        | 1.15    | 1             | 632 - 875                | ---        | ---                |
|           | 1.5      | 1.7     | 1             | ---                      | 798 - 1105 | ---                |
|           | 2        | 2.3     | 1             | ---                      | ---        | 921 - 1228         |
| 074       | 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 208/230V-1ph applications.

<sup>2</sup> 1 hp blower motor is not available for 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<br>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<br>cfm | Wet Indoor Coil   |                    |        |                              | Gss Heat Exchanger |      | Economizer |            |
|-------------------|-------------------|--------------------|--------|------------------------------|--------------------|------|------------|------------|
|                   | ZGA036,<br>ZGA048 | ZGB036,-<br>ZGB048 | ZGA060 | ZGB060,<br>ZGA072,<br>ZGB074 | Medium             | High | Downflow   | Horizontal |
| 900               | 0.01              | 0.01               | ---    | ---                          | 0.05               | 0.06 | 0.03       | 0.04       |
| 1000              | 0.01              | 0.02               | ---    | ---                          | 0.06               | 0.06 | 0.03       | 0.05       |
| 1100              | 0.02              | 0.02               | ---    | ---                          | 0.06               | 0.07 | 0.04       | 0.05       |
| 1200              | 0.02              | 0.02               | ---    | ---                          | 0.06               | 0.07 | 0.05       | 0.06       |
| 1300              | 0.02              | 0.03               | ---    | ---                          | 0.07               | 0.07 | 0.05       | 0.07       |
| 1400              | 0.03              | 0.03               | ---    | ---                          | 0.07               | 0.08 | 0.06       | 0.08       |
| 1500              | 0.03              | 0.04               | ---    | ---                          | 0.07               | 0.08 | 0.07       | 0.08       |
| 1600              | 0.03              | 0.04               | 0.04   | 0.03                         | 0.07               | 0.08 | 0.08       | 0.09       |
| 1700              | 0.04              | 0.05               | 0.05   | 0.03                         | 0.07               | 0.08 | 0.09       | 0.10       |
| 1800              | 0.04              | 0.05               | 0.05   | 0.03                         | 0.06               | 0.08 | 0.10       | 0.11       |
| 1900              | 0.04              | 0.06               | 0.06   | 0.04                         | 0.06               | 0.08 | 0.11       | 0.12       |
| 2000              | 0.05              | 0.06               | 0.06   | 0.04                         | 0.07               | 0.09 | 0.12       | 0.13       |
| 2100              | ---               | ---                | 0.07   | 0.05                         | 0.08               | 0.10 | 0.13       | 0.14       |
| 2200              | ---               | ---                | 0.08   | 0.05                         | 0.10               | 0.12 | 0.14       | 0.15       |
| 2300              | ---               | ---                | 0.08   | 0.05                         | 0.11               | 0.14 | 0.15       | 0.16       |
| 2400              | ---               | ---                | 0.09   | 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       |

## BLOWER DATA

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

| Air Volume<br>cfm | RTD9-65 Step-Down Diffuser |                         |                          | FD9-65<br>Flush<br>Diffuser | RTD11-95 Step-Down Diffuser |                         |                          | FD11-95<br>Flush<br>Diffuser |
|-------------------|----------------------------|-------------------------|--------------------------|-----------------------------|-----------------------------|-------------------------|--------------------------|------------------------------|
|                   | 2 Ends<br>Open             | 1 Side &<br>2 Ends Open | All Ends &<br>Sides Open |                             | 2 Ends<br>Open              | 1 Side &<br>2 Ends Open | All Ends &<br>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.        | RTD9-65                            | FD9-65  | Model No.        | RTD11-95                           | FD11-95 |
| 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 - ZGA

**3 TON**

### ZGA036S4

| <sup>1</sup> Voltage - 60hz                 |                               | 208/230V - 3 Ph |     | 460V - 3 Ph |     | 575V - 3 Ph |     |
|---|-------------------------------|-----------------|-----|-------------|-----|-------------|-----|
| Compressor                                  | Rated Load Amps               | 8.7             |     | 4           |     | 3.6         |     |
|   | Locked Rotor Amps             | 70              |     | 31          |     | 27          |     |
| Outdoor Fan Motor                           | Full Load Amps                | 1               |     | 0.6         |     | 0.45        |     |
| Power Exhaust (1) 0.5 HP                    | Full Load Amps                | 1.5             |     | 0.6         |     | 0.6         |     |
| Indoor Blower Motor                         | Horsepower                    | 1               | 1.5 | 1           | 1.5 | 1           | 1.5 |
|   | Full Load Amps                | 4.6             | 6.6 | 2.1         | 3   | 1.7         | 2.4 |
| <sup>2</sup> Maximum Overcurrent Protection | Unit Only                     | 25              | 25  | 15          | 15  | 15          | 15  |
|   | With (1) 0.5 HP Power Exhaust | 25              | 25  | 15          | 15  | 15          | 15  |
| <sup>3</sup> Minimum Circuit Ampacity       | Unit Only                     | 17              | 19  | 8           | 9   | 7           | 8   |
|   | With (1) 0.5 HP Power Exhaust | 18              | 20  | 9           | 10  | 8           | 8   |

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 - ZGA****4 TON****ZGA048S4**

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

**ELECTRICAL DATA - ZGA****5 TON****ZGA060S4**

| <sup>1</sup> Voltage - 60hz                 |                               | 208/230V - 3 Ph |     |     | 460V - 3 Ph |     |     | 575V - 3 Ph |     |  |
|---|-------------------------------|-----------------|-----|-----|-------------|-----|-----|-------------|-----|--|
| Compressor                                  | Rated Load Amps               | 13.5            |     |     | 8           |     |     | 5           |     |  |
|   | Locked Rotor Amps             | 109             |     |     | 59          |     |     | 40          |     |  |
| 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                    | 1               | 1.5 | 1   | 1.5         | 1   | 1.5 | 1           | 1.5 |  |
|   | Full Load Amps                | 4.6             | 6.6 | 2.1 | 3           | 1.7 | 2.4 | 1.7         | 2.4 |  |
| <sup>2</sup> Maximum Overcurrent Protection | Unit Only                     | 35              | 35  | 20  | 20          | 15  | 15  | 15          | 15  |  |
|   | With (1) 0.5 HP Power Exhaust | 35              | 40  | 20  | 20          | 15  | 15  | 15          | 15  |  |
| <sup>3</sup> Minimum Circuit Ampacity       | Unit Only                     | 24              | 26  | 14  | 14          | 9   | 10  | 9           | 10  |  |
|   | With (1) 0.5 HP Power Exhaust | 25              | 27  | 14  | 15          | 10  | 11  | 10          | 11  |  |

**ELECTRICAL DATA - ZGA****6 TON****ZGA072S4**

| <sup>1</sup> Voltage - 60hz                 |                               | 208/230V - 3 Ph |     |     | 460V - 3 Ph |     |     | 575V - 3 Ph |     |     |
|---|-------------------------------|-----------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| Compressor                                  | Rated Load Amps               | 19.6            |     |     | 8.2         |     |     | 6.6         |     |     |
|   | Locked Rotor Amps             | 136             |     |     | 66.1        |     |     | 55.3        |     |     |
| Outdoor Fan Motors                          | 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                    | 1               | 1.5 | 2   | 1           | 1.5 | 2   | 1           | 1.5 | 2   |
|   | Full Load Amps                | 4.6             | 6.6 | 7.5 | 2.1         | 3   | 3.4 | 1.7         | 2.4 | 2.7 |
| <sup>2</sup> Maximum Overcurrent Protection | Unit Only                     | 50              | 50  | 50  | 20          | 20  | 20  | 15          | 15  | 15  |
|   | with (1) 0.5 HP Power Exhaust | 50              | 50  | 50  | 20          | 20  | 20  | 15          | 15  | 15  |
| <sup>3</sup> Minimum Circuit Ampacity       | Unit Only                     | 31              | 33  | 34  | 14          | 15  | 15  | 11          | 12  | 12  |
|   | with (1) 0.5 HP Power Exhaust | 33              | 35  | 36  | 14          | 15  | 16  | 12          | 13  | 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 - ZGB****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 | 0.75 | 1               | 1.5 | 0.75 | 1           | 1.5 | 0.75 | 1           | 1.5 |  |
|   | Full Load Amps                | 7.6             | 11  | 3.5  | 4.6             | 6.6 | 1.6  | 2.1         | 3   | 1.3  | 1.7         | 2.4 |  |
| <sup>2</sup> Maximum Overcurrent Protection | Unit Only                     | 40              | 45  | 20   | 25              | 25  | 15   | 15          | 15  | 15   | 15          | 15  |  |
|   | With (1) 0.5 HP Power Exhaust | 45              | 45  | 25   | 25              | 25  | 15   | 15          | 15  | 15   | 15          | 15  |  |
| <sup>3</sup> Minimum Circuit Ampacity       | Unit Only                     | 29              | 32  | 17   | 18              | 20  | 8    | 8           | 9   | 7    | 7           | 8   |  |
|   | With (1) 0.5 HP Power Exhaust | 30              | 34  | 18   | 19              | 21  | 9    | 9           | 10  | 8    | 8           | 9   |  |

**ELECTRICAL DATA - ZGB****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 | 0.75 | 1               | 1.5 | 0.75 | 1           | 1.5 | 0.75 | 1           | 1.5 |  |
|   | Full Load Amps                | 7.6             | 11  | 3.5  | 4.6             | 6.6 | 1.6  | 2.1         | 3   | 1.3  | 1.7         | 2.4 |  |
| <sup>2</sup> Maximum Overcurrent Protection | Unit Only                     | 50              | 50  | 25   | 30              | 30  | 15   | 15          | 15  | 15   | 15          | 15  |  |
|   | With (1) 0.5 HP Power Exhaust | 50              | 50  | 30   | 30              | 30  | 15   | 15          | 15  | 15   | 15          | 15  |  |
| <sup>3</sup> Minimum Circuit Ampacity       | Unit Only                     | 35              | 38  | 19   | 21              | 23  | 10   | 10          | 11  | 8    | 9           | 9   |  |
|   | With (1) 0.5 HP Power Exhaust | 36              | 40  | 21   | 22              | 24  | 10   | 11          | 12  | 9    | 9           | 10  |  |

**ELECTRICAL DATA - ZGB****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 | 0.75 | 1               | 1.5 | 0.75 | 1           | 1.5 | 0.75 | 1           | 1.5 |  |
|   | Full Load Amps                | 7.6             | 11  | 3.5  | 4.6             | 6.6 | 1.6  | 2.1         | 3   | 1.3  | 1.7         | 2.4 |  |
| <sup>2</sup> Maximum Overcurrent Protection | Unit Only                     | 50              | 60  | 35   | 35              | 35  | 20   | 20          | 20  | 15   | 15          | 15  |  |
|   | With (1) 0.5 HP Power Exhaust | 60              | 60  | 35   | 35              | 40  | 20   | 20          | 20  | 15   | 15          | 15  |  |
| <sup>3</sup> Minimum Circuit Ampacity       | Unit Only                     | 37              | 41  | 23   | 24              | 26  | 13   | 13          | 14  | 9    | 9           | 10  |  |
|   | With (1) 0.5 HP Power Exhaust | 39              | 42  | 24   | 25              | 27  | 14   | 14          | 15  | 9    | 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 - ZGB****6 TON****ZGB074S4**

| <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.

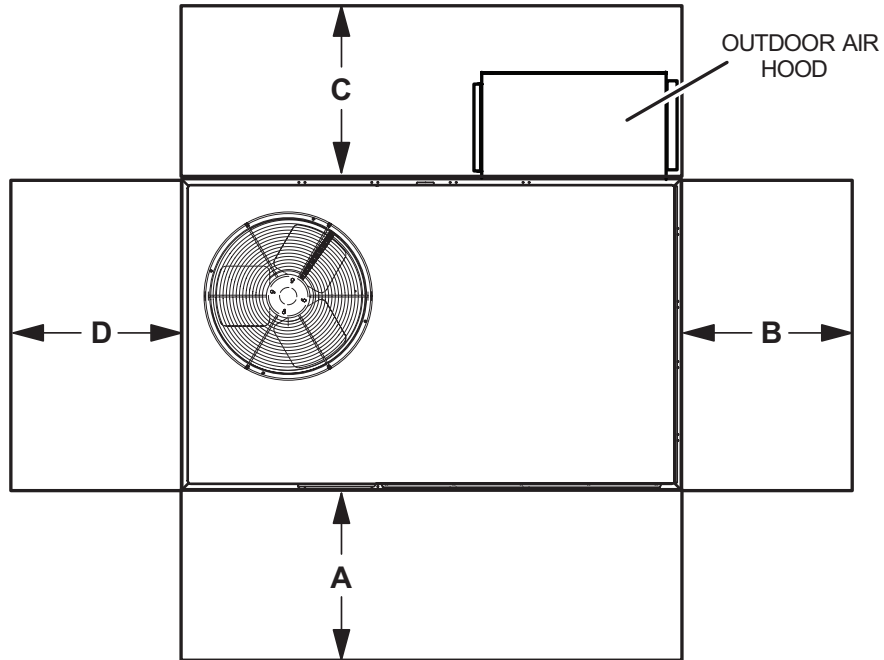
<sup>1</sup> Extremes of operating range are plus and minus 10% of line voltage.

<sup>2</sup> HACR type breaker or fuse.

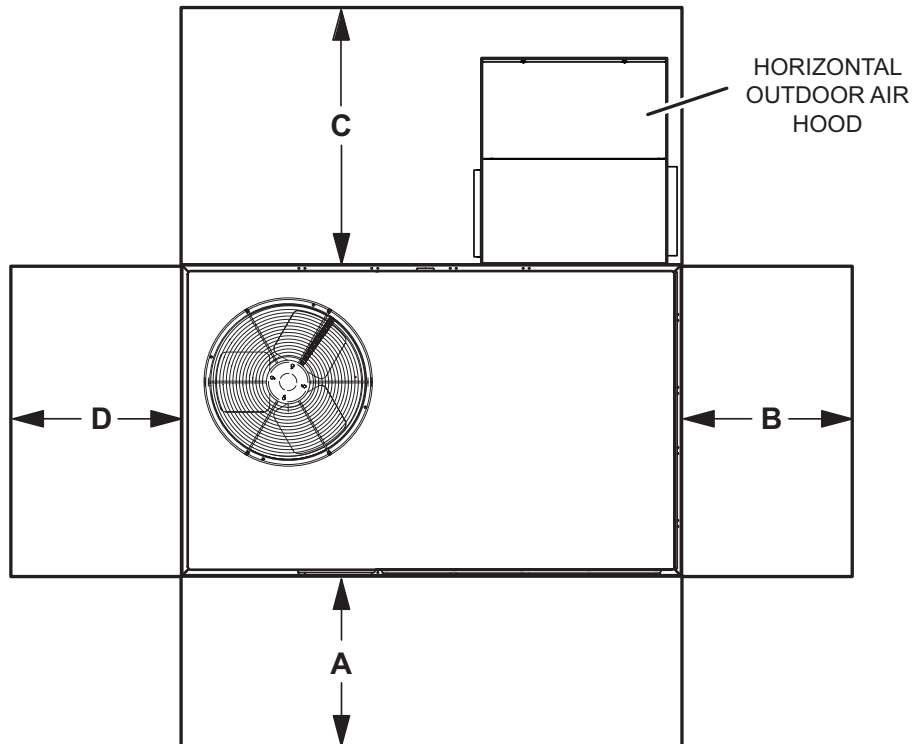
<sup>3</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

## UNIT CLEARANCES - INCHES (MM)

### UNIT WITH DOWNFLOW ECONOMIZER



### UNIT WITH HORIZONTAL ECONOMIZER



| 1 Unit Clearance                   | A   |     | B   |     | C<br>Downflow |     | C<br>Horizontal |      | D   |     | Top<br>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.

## OUTDOOR SOUND DATA

| Unit<br>Model No. | Octave Band Linear Sound Power Levels dB, re 10 <sup>-12</sup> Watts - Center Frequency - Hz |     |     |      |      |      |      | <sup>1</sup> Sound Rating<br>Number (SRN)<br>(dBA) |
|-------------------|--|-----|-----|------|------|------|------|--|
|                   | 125  | 250 | 500 | 1000 | 2000 | 4000 | 8000 |  |
| ZGA036            | 81   | 78  | 77  | 72   | 68   | 66   | 61   | 77   |
| ZGA048            | 84   | 80  | 79  | 74   | 70   | 67   | 63   | 80   |
| ZGA060            | 86   | 82  | 82  | 78   | 74   | 68   | 65   | 83   |
| ZGB036            | 81   | 78  | 77  | 72   | 68   | 66   | 61   | 77   |
| ZGB048            | 84   | 80  | 79  | 74   | 70   | 67   | 63   | 80   |
| ZGB060            | 80   | 76  | 76  | 73   | 68   | 66   | 64   | 78   |
| ZGA072            | 88   | 85  | 84  | 79   | 72   | 66   | 64   | 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).



## WEIGHT DATA

| Model Number | Net  |     |      |     | Shipping |     |      |     |
|--------------|------|-----|------|-----|----------|-----|------|-----|
|              | Base |     | Max. |     | Base     |     | Max. |     |
|              | lbs. | kg  | lbs. | kg  | lbs.     | kg  | lbs. | kg  |
| ZGA036S      | 484  | 220 | 542  | 246 | 489      | 222 | 547  | 248 |
| ZGB036S      | 524  | 238 | 594  | 269 | 529      | 240 | 599  | 272 |
| ZGA048S      | 498  | 226 | 568  | 258 | 503      | 228 | 573  | 260 |
| ZGB048S      | 533  | 242 | 603  | 274 | 538      | 244 | 608  | 276 |
| ZGA060S      | 530  | 240 | 602  | 273 | 535      | 243 | 607  | 275 |
| ZGB060S      | 592  | 269 | 664  | 301 | 597      | 271 | 669  | 303 |
| ZGA072S      | 640  | 290 | 712  | 323 | 645      | 293 | 717  | 325 |
| 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   |            | 30               | 14 |
| Manual  |            | 23               | 10 |
| <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   | RTD9-65-R  | 67               | 30 |
|   | RTD11-95   | 88               | 40 |
| Flush   | FD9-65-R   | 37               | 17 |
|   | FD11-95    | 75               | 34 |

## DIMENSIONS - UNIT - INCHES (MM) - ZGA

| Model No.  | CORNER WEIGHTS |      |      |      |      |      |      |      |      |      |      |      |      |      | CENTER OF GRAVITY |      |      |      |      |     |       |     |    |     |
|------------|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------------|------|------|------|------|-----|-------|-----|----|-----|
|            | AA             |      | BB   |      | CC   |      | DD   |      | EE   |      | FF   |      | EE   |      | FF                |      |      |      |      |     |       |     |    |     |
|            | 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   | in.  | mm   | in.  | mm   | in.               | mm   |      |      |      |     |       |     |    |     |
| <b>036</b> | 124            | 56   | 142  | 65   | 115  | 52   | 146  | 66   | 117  | 53   | 129  | 58   | 127  | 58   | 125               | 57   | 39.5 | 1003 | 37.5 | 953 | 23.25 | 591 | 25 | 635 |
| <b>048</b> | 128            | 58   | 149  | 68   | 118  | 54   | 153  | 69   | 121  | 55   | 135  | 61   | 131  | 59   | 131               | 60   | 39.5 | 1003 | 37.5 | 953 | 23.25 | 591 | 25 | 635 |
| <b>060</b> | 136            | 62   | 158  | 72   | 126  | 57   | 162  | 74   | 129  | 58   | 143  | 65   | 139  | 63   | 139               | 63   | 39.5 | 1003 | 37.5 | 953 | 23.25 | 591 | 25 | 635 |
| <b>072</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 |

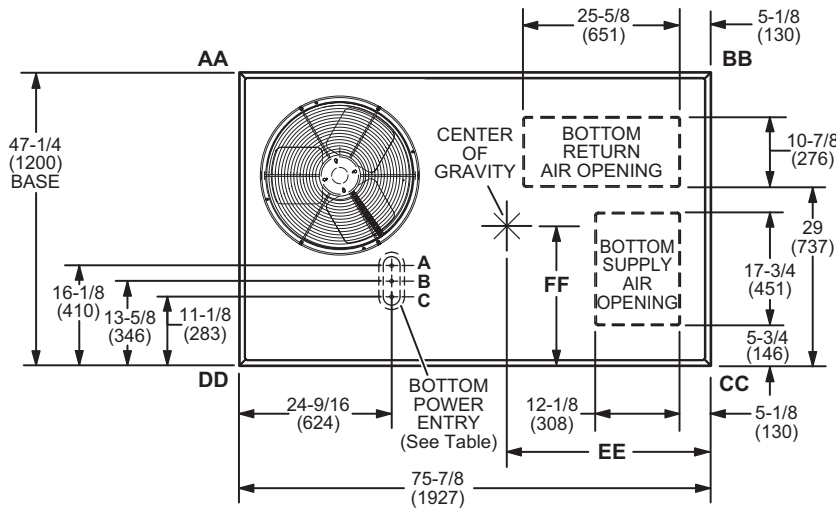
Base Unit - The unit with NO OPTIONS.

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

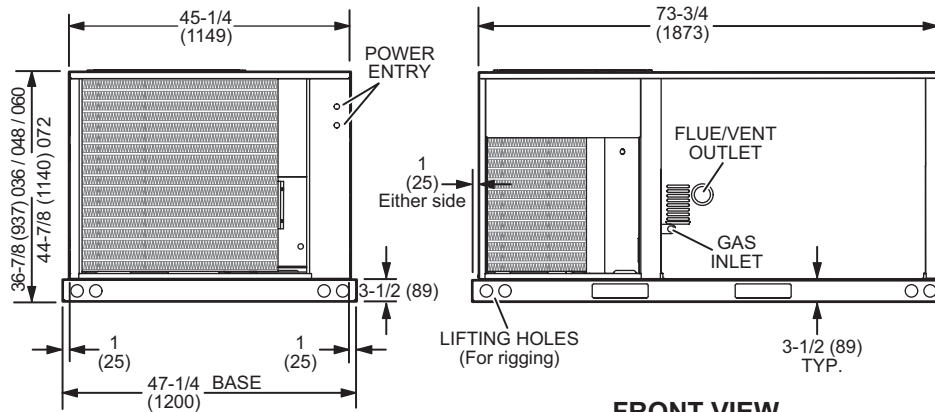
### BOTTOM POWER ENTRY

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)                                 |

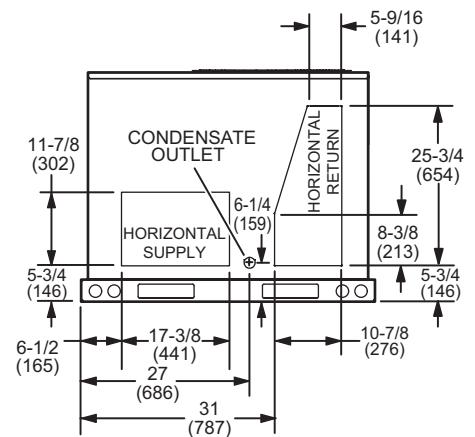


**TOP VIEW (Base)**



**FRONT VIEW**

**END VIEW**



**END VIEW**

## DIMENSIONS - UNIT - INCHES (MM) - ZGB

| 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   | 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 |

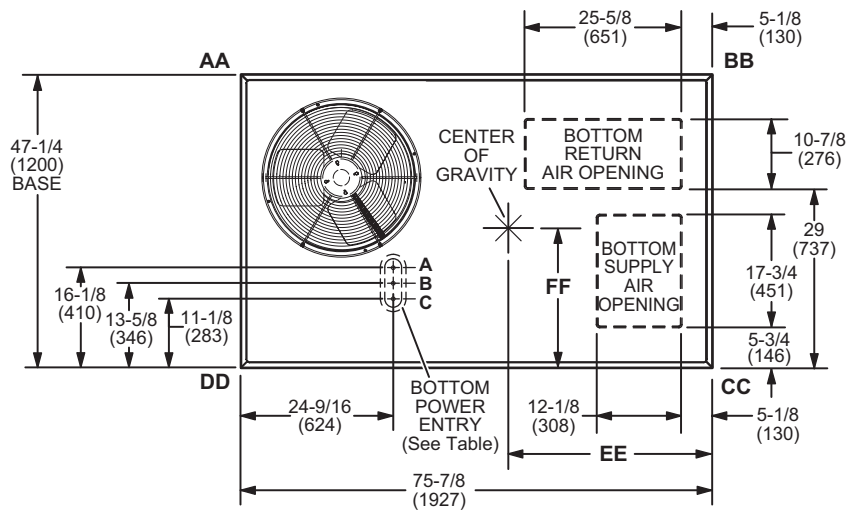
Base Unit - The unit with NO OPTIONS.

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

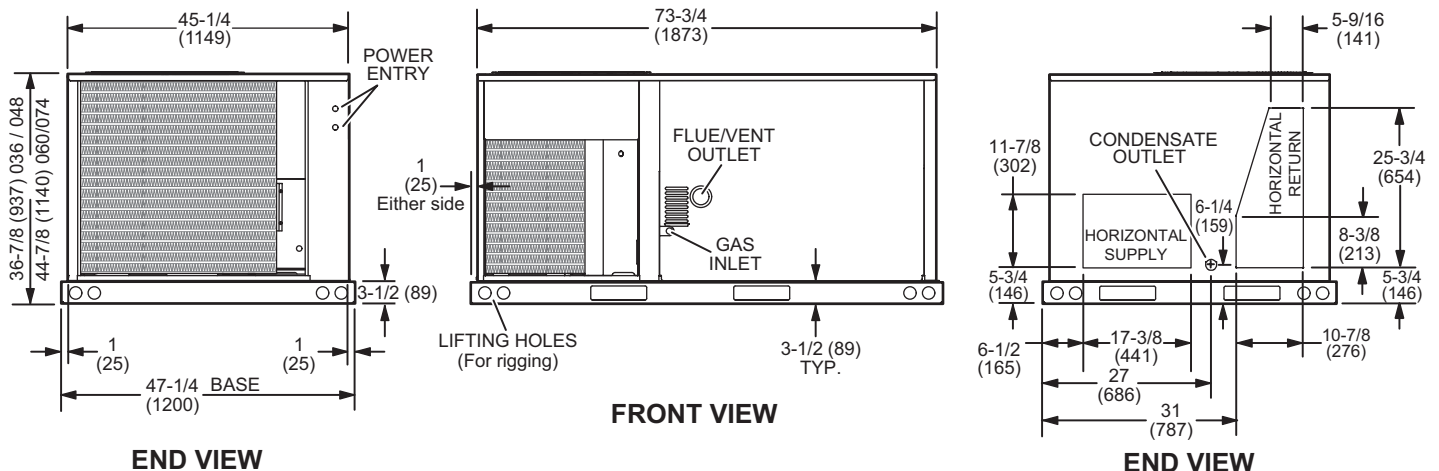
### BOTTOM POWER ENTRY

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)                                 |

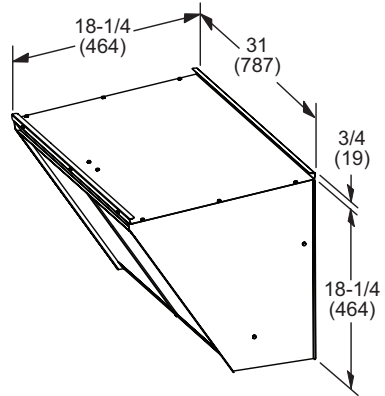
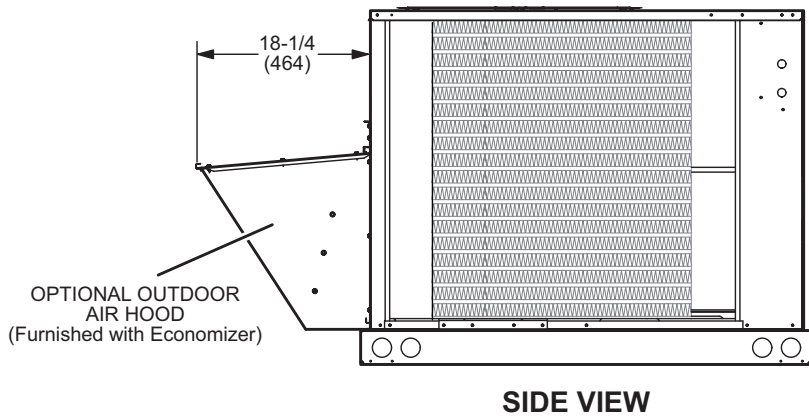


**TOP VIEW (Base)**

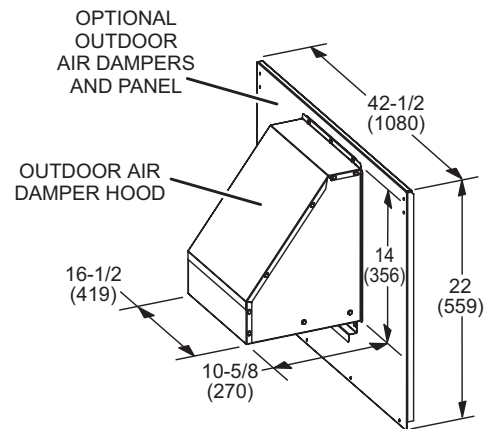
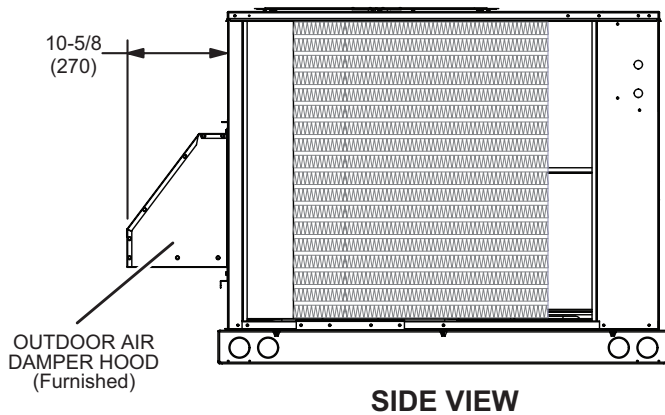


**DIMENSIONS - ACCESSORIES - INCHES (MM)**

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

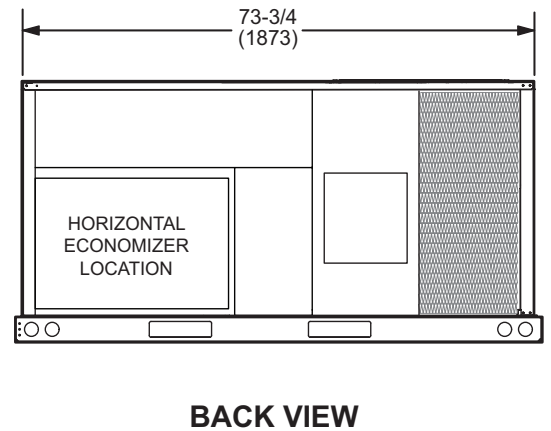
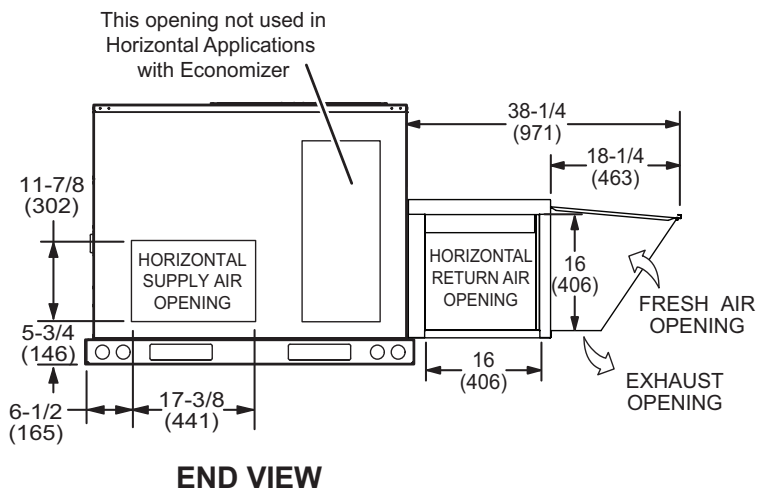
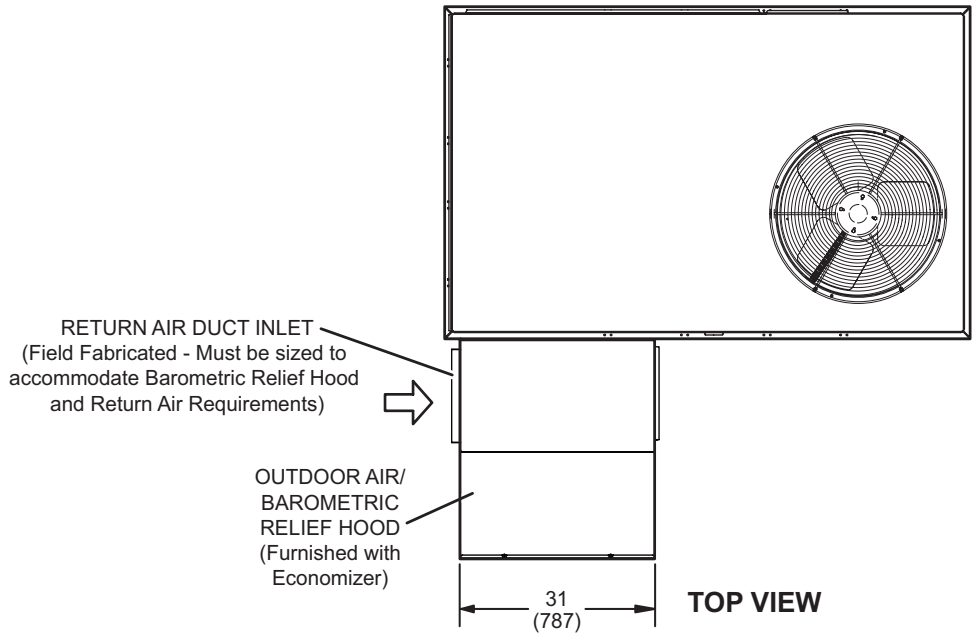


**OUTDOOR AIR DAMPER HOOD DETAIL FOR OPTIONAL MANUAL OR MOTORIZED OUTDOOR AIR DAMPERS  
(Downflow or Horizontal Applications)**



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

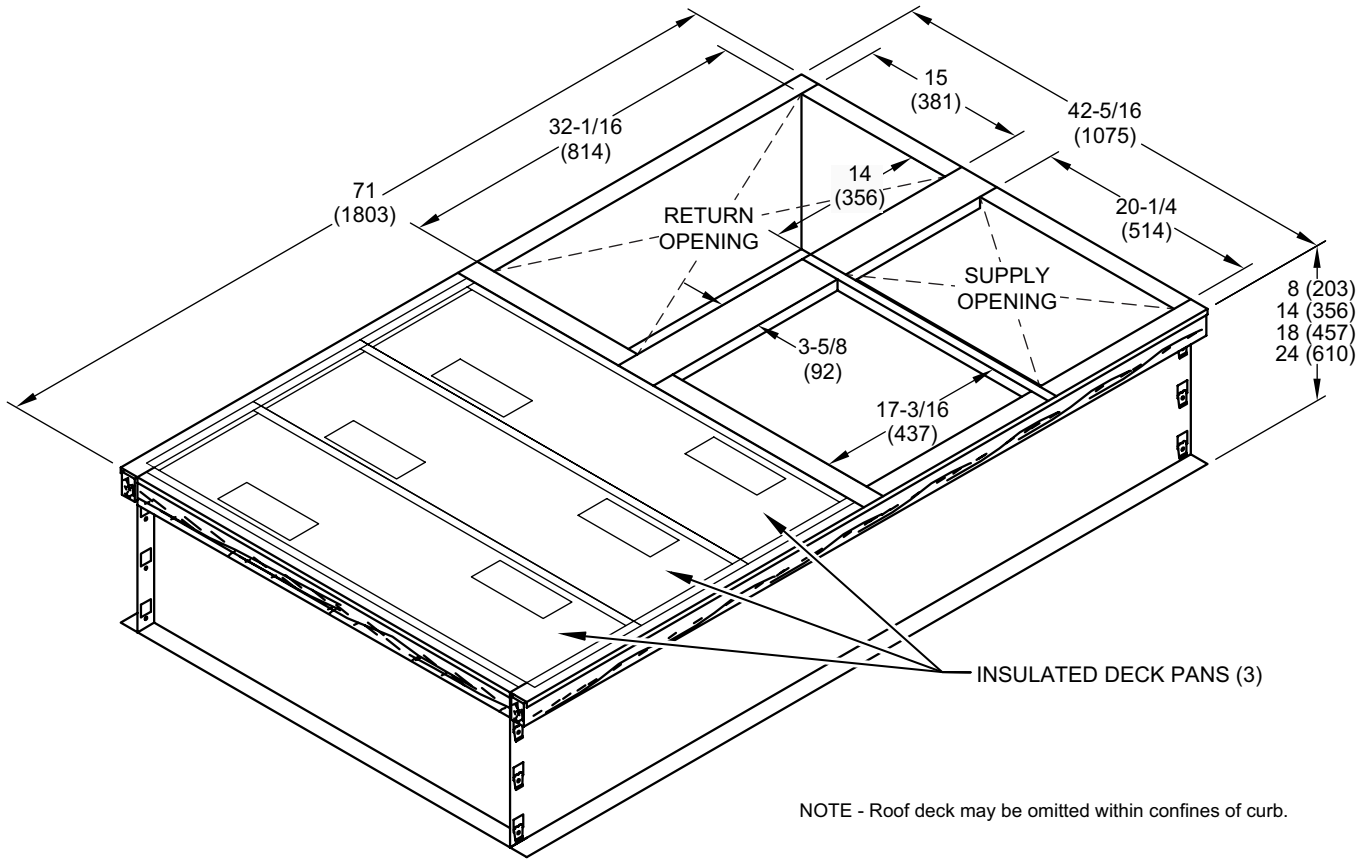
**OUTDOOR AIR HOOD DETAIL WITH OPTIONAL ECONOMIZER AND BAROMETRIC RELIEF DAMPERS  
(Horizontal Applications)**



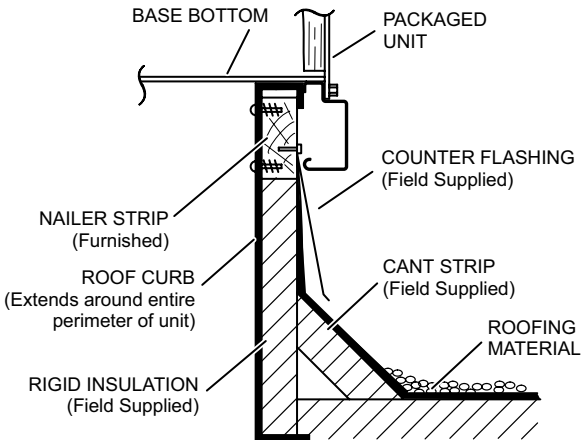
Note - Return Air Duct and Transition must be supported.

# DIMENSIONS - ACCESSORIES - INCHES (MM)

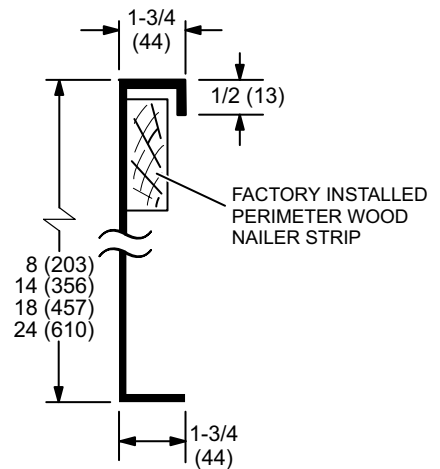
## HYBRID ROOF CURBS - DOUBLE DUCT OPENING



### TYPICAL FLASHING DETAIL FOR ROOF CURB



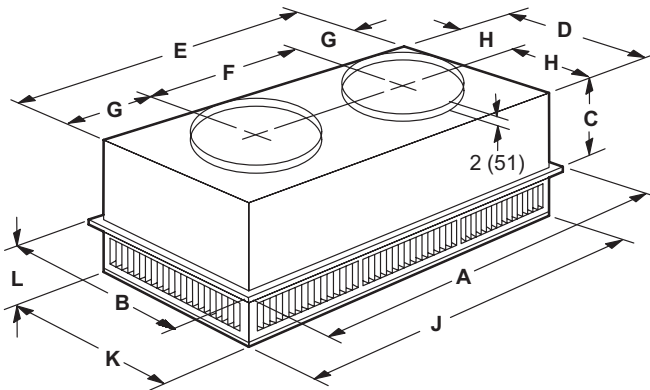
### DETAIL ROOF CURB



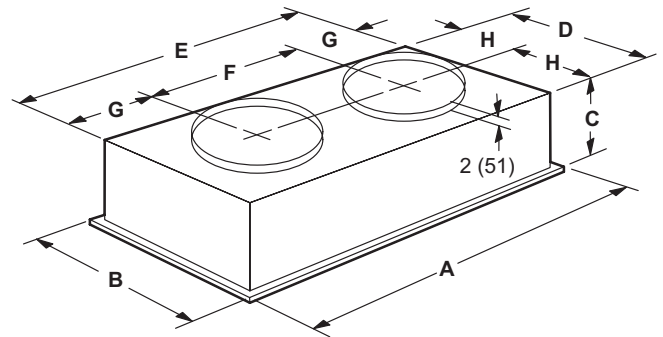
## DIMENSIONS - ACCESSORIES - INCHES (MM)

### COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

#### STEP-DOWN CEILING DIFFUSER



#### FLUSH CEILING DIFFUSER



| Model Number |     | RTD9-65   | RTD11-95  |
|--------------|-----|-----------|-----------|
| 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 |     | FD9-65    | FD11-95   |
|--------------|-----|-----------|-----------|
| 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   |
|----------------------|---|
| New Product          | Added Specifications, Rating and Dimensions for 074 Standard Efficiency model.                              |
| Optional Accessories | New catalog numbers for Standard and High Performance Economizers.<br>Changed catalog numbers for LPG kits. |



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