



PRODUCT SPECIFICATIONS

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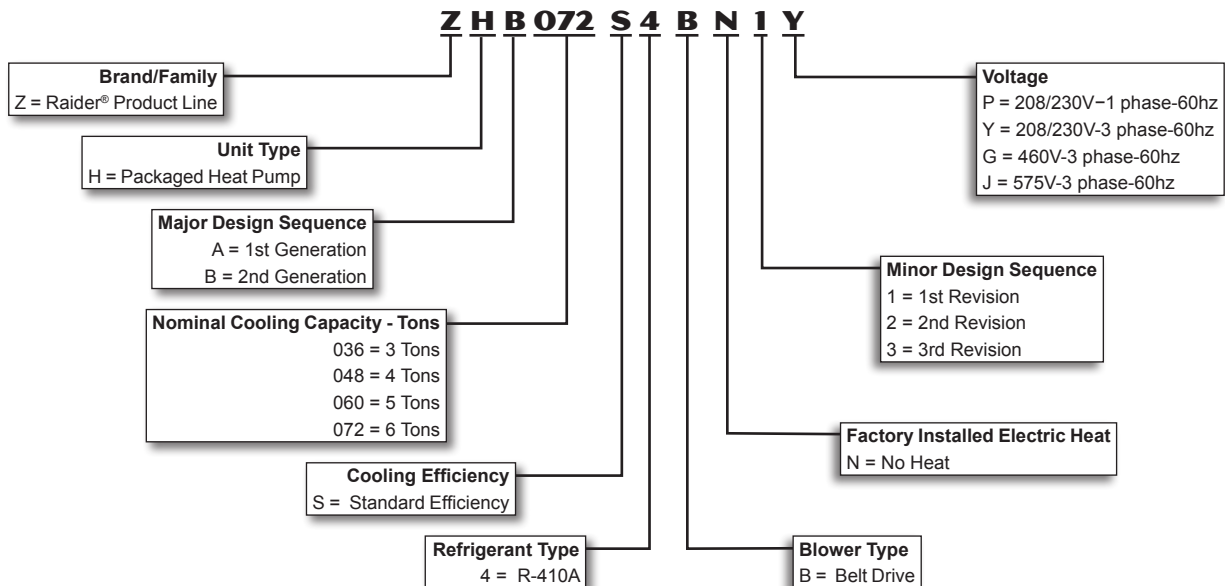
RAIDER®
Value Without Compromise™



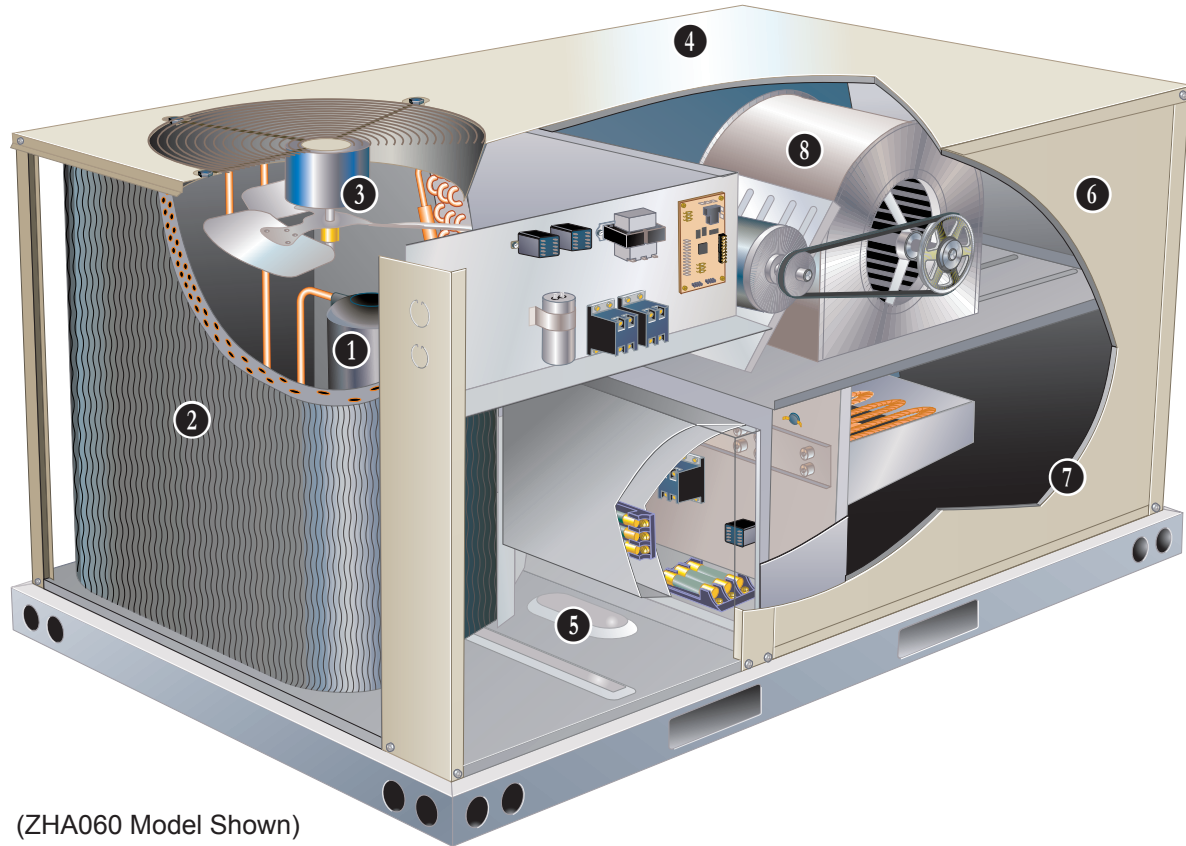
**ASHRAE 90.1
COMPLIANT**

3 to 6 Tons
Net Cooling Capacity – 35,000 to 69,000 Btuh
Net Heating Capacity – 34,200 to 70,000 Btuh
Optional Electric Heat - 5 to 30 kW

MODEL NUMBER IDENTIFICATION



FEATURES AND BENEFITS



(ZHA060 Model Shown)

Raider® rooftop units from Lennox are the new standard for cost efficient, reliable rooftop units built for long-lasting performance that can significantly improve indoor environments. Raider 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
- **Scroll Compressors** - Single speed scroll compressor is furnished on all models.
- **High Pressure Switch** - Protects compressor.
- **Belt Drive Blower Motor** - To maximize air performance
- **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
- **Thermostatic Expansion Valve** - Provides peak heating performance across the entire application range

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.

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.

WARRANTY

Limited five years on compressors.

Limited five years optional High Performance Economizers.

Limited one year all other covered components.

COOLING / HEATING 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.

1 Compressor

Scroll compressors for 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 ZHA and ZHB036 to 060 Models)

Accurately meters refrigerant in system.

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

Thermal Expansion Valve (ZHB072 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.

Reversing Valve

4-way interchange reversing valve effects a rapid change in direction of refrigerant flow resulting in quick changeover from cooling to heating and vice versa.

Defrost Control

Provides a defrost cycle, if needed, every 30 or 60 or 90 minutes (adjustable) of compressor "on" time at outdoor coil temperature below 35°F. Temperature switch mounted on outdoor coil liquid line terminates defrost cycle.

Filter/Drier

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

2 Coil Construction

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

Indoor Coil

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.

FEATURES AND BENEFITS

COOLING / HEATING SYSTEM (continued)

3 Outdoor Coil Fan Motor

Thermal overload protected, totally enclosed, permanently lubricated bearings, shaft down (all ZHA and ZHB036 to 060 models), shaft up (ZHB072) 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.

CABINET

4 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.

5 Power Entry

Electrical lines can be brought through the unit base or through horizontal access knock-outs (end of unit on 036-060 model, side of unit on ZHB072 models).

ZHB072 models feature three mounting locations for the disconnect:

- Side mounting on an adjustable panel (removable corner base rail allows access for installation)
- Side mounting directly over the side power entry knockouts
- End mounting on an adjustable panel (alternate location)

See dimension drawing.

Optional Bottom Power Entry Kit is available.

6 Exterior Panels

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

7 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.

FEATURES AND BENEFITS

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.

Options / Accessories

Field Installed

Commercial Control Systems

L Connection® Network

Complete building automation control system for single or multi-zone applications. Options include local interface, software for local or remote communication, and hardware for networking other control functions.

See L Connection (Network Thermostat Controller version) Product Specifications Bulletin for details.

Thermostats

Control system and thermostat options, see page 35.

8 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.

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 (CO₂) Sensor

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

ELECTRICAL

Marked & Color-Coded Wiring

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

Electrical Plugs

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

Required Selections

Voltage Choice

Specify when ordering base unit.

Field Installed

Bottom Power Entry Kit

Kit reduces the number of penetrations in the roof.

Kit includes bulkhead connectors to provides power and control wiring routing through the roof curb.

Electric Heat

Helix wound nichrome elements, individual element limit controls, wiring harness. See Options / Accessories tables for ordering information.

NOTE - Unit Fuse Block is required and must be ordered separately. See Electrical/Electric Heat tables for ordering information.

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 CO₂ 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 CO₂ is higher than the CO₂ setpoint.
- Demand Control Ventilation (DCV) LED - A steady green Demand Control Ventilation LED indicates the IAQ reading is higher than setpoint and requires more fresh air.
- Free Cool LED - A steady green LED indicates outdoor air is suitable for free cooling.

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

NOTE: The Free Cooling default setting for outdoor air temperature sensor is 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, CO₂ settings, stage 3 delay and additional calibration settings)
- CHECKOUT (damper positions)
- ALARMS (output signal that can be configured for remote alarm monitoring)

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

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

OPTIONS / ACCESSORIES

ECONOMIZER OPTIONS **(continued)**

Field Installed

Single Enthalpy Temperature Control

(Not for Title 24)

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

EXHAUST OPTIONS

Field Installed

Power Exhaust Fan - Downflow or Horizontal

Installs external to unit for applications with Economizer option. Provides exhaust air pressure relief. Interlocked to run when supply air blower is operating, fan runs when outdoor air dampers are 50% open (adjustable), motor is overload protected.

Fan is 12 in. diameter with 5 fan blades. 1/2 hp motor.

OUTDOOR AIR OPTIONS

Field Installed

Outdoor Air Dampers - Downflow

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

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

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

ROOF CURBS

Hybrid Roof Curbs, Downflow

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

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

Curb can also be fastened together with furnished hardware.

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

Adaptor Curbs (not shown)

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

CEILING DIFFUSERS

Ceiling Diffusers

(Flush and Step-Down)

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

Transitions (Supply and Return)

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

OPTIONS / ACCESSORIES

| Item | | Catalog No. | ZHA ZHB 036 | ZHA ZHB 048 | ZHA ZHB 060 | ZHB 072 |
|--|--|-------------|----------------|----------------|----------------|----------------|
| COOLING SYSTEM | | | | | | |
| Condensate Drain Trap | PVC - C1TRAP20AD2 | 76W26 | X | X | X | X |
| | Copper - C1TRAP10AD2 | 76W27 | X | X | X | X |
| Drain Pan Overflow Switch | Z1SNSR90A1 | 99W59 | X | X | X | X |
| Low Ambient Kit | Z1SNSR34A-1 | 99W68 | X | X | X | X |
| BLOWER - SUPPLY AIR | | | | | | |
| Motors | Belt Drive - 0.75 hp (208/230V-1ph) Standard Efficiency | Factory | ³ O | ³ O | ³ 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 |
| Drive Kits | Kit #ZA01 - 678-1035 rpm | Factory | O | | | |
| See Blower Data Tables for selection | Kit #ZA02 - 803-1226 rpm | Factory | | O | | |
| | Kit #ZA03 - 906-1383 rpm | Factory | | | ⁴ O | |
| | Kit #ZA04 - 964-1471 rpm | Factory | O | | | |
| | ¹ Kit #ZA05 -1098-1490 rpm | Factory | | O | | |
| | ¹ Kit #ZA06 -1262-1634 rpm | Factory | | | ⁴ O | |
| | Kit #ZAA01 - 522-784 rpm | Factory | | | ³ O | |
| | Kit #ZAA02 - 632-875 rpm | Factory | | | ³ O | O |
| | ¹ Kit #ZAA03 - 798-1105 rpm | Factory | | | ³ O | O |
| | Kit #ZAA04 - 921-1228 rpm | Factory | | | | ² O |
| CABINET | | | | | | |
| Coil/Hail Guards | ZHA models only - Z1GARD52A-1 | 12X19 | X | X | | |
| | ZHA060 and ZHB models only - Z1GARD20AT1 | 12X20 | X | X | X | |
| | ZHB072 model only - Z1GARD20AL1 | 16A41 | | | | X |
| Corrosion Protection | | Factory | O | O | O | O |
| ELECTRICAL | | | | | | |
| Voltage | 208/230V - 1 phase | Factory | ³ O | ³ O | ³ O | |
| 60 hz | 208/230V - 3 phase | Factory | O | O | O | O |
| | 460V - 3 phase | Factory | O | O | O | O |
| | 575V - 3 phase | Factory | O | O | O | O |
| Bottom Power Entry Kit | Z1PEKT01A-1 | 98W08 | X | X | X | X |
| ELECTRIC HEAT | | | | | | |
| 5 kW | 208/230V-1ph - Z1EH0050AN1P | 98W96 | X | X | X | |
| | 208/230V-3ph - Z1EH0050AN1Y | 99W01 | X | X | X | |
| | 460V-3ph - Z1EH0050AN1G | 99W06 | X | X | X | |
| | 575V-3ph - Z1EH0050AN1J | 99W11 | X | X | X | |
| 7.5 kW | 208/230V-1ph - Z1EH0075AN1P | 98W97 | X | X | X | |
| | 208/230V-3ph - Z1EH0075AN1Y | 99W02 | X | X | X | X |
| | 460V-3ph - Z1EH0075AN1G | 99W07 | X | X | X | X |
| | 575V-3ph - Z1EH0075AN1J | 99W12 | X | X | X | X |
| 10 kW | 208/230V-1ph - Z1EH0100AN1P | 98W98 | X | X | X | |
| | 208/230V-3ph - Z1EH0100AN1Y | 99W03 | X | X | X | X |
| | 460V-3ph - Z1EH0100AN1G | 99W08 | X | X | X | X |
| | 575V-3ph - Z1EH0100AN1J | 99W13 | X | X | X | X |
| 15 kW | 208/230V-1ph - Z1EH0150AN1P | 98W99 | X | X | X | |
| | 208/230V-3ph - Z1EH0150AN1Y | 99W04 | X | X | X | X |
| | 460V-3ph - Z1EH0150AN1G | 99W09 | X | X | X | X |
| | 575V-3ph - Z1EH0150AN1J | 99W14 | X | X | X | X |
| 22.5 kW | 208/230V-1ph - Z1EH0225AN1P | 99W00 | | X | X | |
| | 208/230V-3ph - Z1EH0225AN1Y | 99W05 | | X | X | X |
| | 460V-3ph - Z1EH0225AN1G | 99W10 | | X | X | X |
| | 575V-3ph - Z1EH0225AN1J | 99W15 | | X | X | X |
| 30 kW | 208/230V-3ph - Z1EH0300AN1Y | 13U01 | | | | X |
| | 460V-3PH - Z1EH0300AN1G | 13U02 | | | | X |
| | 575V-3PH - Z1EH0300AN1J | 13U03 | | | | X |
| ELECTRIC HEAT ACCESSORIES | | | | | | |
| Unit Fuse Block (required) - See Electrical/Electric Heat Tables for Selection | | | X | X | X | X |

¹ 1.5 hp blower motor is the minimum required with the ZA05, ZA06 and ZAA03 drive kits.

² 2 hp blower motor is required with the ZAA04 drive kit.

³ ZHB models only.

⁴ ZHA 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. | ZHA ZHB 036 | ZHA ZHB 048 | ZHA ZHB 060 | ZHB 072 |
|--|----------------------------------|-------------|-------------|-------------|-------------|---------|
| ECONOMIZER | | | | | | |
| Standard Economizer With Outdoor Air Hood (Not for Title 24) | | | | | | |
| Standard Economizer (Downflow) Includes Barometric Relief Dampers and Exhaust Hood | Z1ECON30A-2 | 14D94 | OX | OX | OX | OX |
| Standard Economizer (Horizontal) Includes Barometric Relief Dampers and Exhaust Hood | Z1ECON16A-2 | 14D92 | X | X | X | X |
| Standard Economizer Controls (Not for Title 24) | | | | | | |
| Single Enthalpy Control | C1SNSR64FF1 | 53W64 | X | X | X | X |
| High Performance Economizer With Outdoor Air Hood (Approved for California Title 24 Building Standards) | | | | | | |
| High Performance Economizer (Downflow) Includes Barometric Relief Dampers and Exhaust Hood | Z1ECON32A-2 | 14D95 | OX | OX | OX | OX |
| High Performance Economizer (Horizontal) Includes Barometric Relief Dampers and Exhaust Hood | Z1ECON33A-2 | 14D93 | X | X | X | X |
| High Performance Economizer Controls (Not for Title 24) | | | | | | |
| Single Enthalpy Control | C1SNSR61FF1 | 11G21 | X | X | X | X |
| OUTDOOR AIR | | | | | | |
| Outdoor Air Dampers - Includes Outdoor Air Hood | | | | | | |
| Motorized | Z1DAMP21A-2 | 15D19 | X | X | X | X |
| Manual | Z1DAMP11A-2 | 15D20 | X | X | X | X |
| POWER EXHAUST FAN | | | | | | |
| Standard Static (Downflow) | 208/230V-1 or 3ph - Z1PWRE10A-1P | 21E01 | X | X | X | X |
| | 460V-3ph - Z1PWRE10A-1G | 23E01 | X | X | X | X |
| Standard Static (Horizontal) | 208/230V-1 or 3ph - Z1PWRE15A-1P | 24E01 | X | X | X | X |
| | 460V-3ph - Z1PWRE15A-1G | 28E01 | X | X | X | X |
| 575V Transformer Kit | 575V-3ph - Z1TRFM20A-1J | 59E02 | X | X | X | X |
| NOTE - Order 575V Transformer Kit with 208/230V Power Exhaust Fan for 575V applications. | | | | | | |
| INDOOR AIR QUALITY | | | | | | |
| Indoor Air Quality (CO₂) Sensors | | | | | | |
| Sensor - Wall-mount, off-white plastic cover with LCD display | C0SNSR50AE1L | 77N39 | X | X | X | X |
| Sensor - Wall-mount, black plastic case, no display, rated for plenum mounting | C0SNSR53AE1L | 87N54 | X | X | X | X |
| CO ₂ Sensor Duct Mounting Kit - for downflow applications | C0MISC19AE1 | 85L43 | X | X | X | X |
| Aspiration Box - for duct mounting non-plenum rated CO ₂ sensor (77N39) | C0MISC16AE1 | 90N43 | X | X | X | X |
| ROOF CURBS | | | | | | |
| Hybrid Roof Curbs, Downflow | | | | | | |
| 8 in. height | Z1CURB70A-1 | 11F76 | X | X | X | X |
| 14 in. height | Z1CURB71A-1 | 11F77 | X | X | X | X |
| 18 in. height | Z1CURB72A-1 | 11F78 | X | X | X | X |
| 24 in. height | Z1CURB73A-1 | 11F79 | X | X | X | X |
| CEILING DIFFUSERS | | | | | | |
| Step-Down - Order one | RTD9-65S | 13K60 | X | X | X | |
| | RTD11-95S | 13K61 | | | | X |
| Flush - Order one | FD9-65S | 13K55 | X | X | X | |
| | FD11-95S | 13K56 | | | | X |

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 - ZHA

| General Data | | Nominal Tonnage | 3 Ton | 4 Ton | 5 Ton |
|--|--|-----------------------|-------------------------------------|---|---|
| | | Model No. | ZHA036S4B | ZHA048S4B | ZHA060S4B |
| | | Efficiency Type | Standard | Standard | Standard |
| Cooling Performance | Gross Cooling Capacity - Btuh | | 37,600 | 48,500 | 60,700 |
| | ¹ Net Cooling Capacity - Btuh | | 36,200 | 46,500 | 58,000 |
| | AHRI Rated Air Flow - cfm | | 1310 | 1610 | 1940 |
| | ² Sound Rating Number (SRN) (dBA) Cooling | | 79 | 79 | 83 |
| | Heating | | 80 | 80 | 83 |
| | Total Unit Power - kW | | 3.1 | 4.3 | 5.3 |
| | ¹ SEER (Btuh/Watt) | | 13.00 | 13.00 | 13.00 |
| | ¹ EER (Btuh/Watt) | | 11.3 | 10.8 | 10.9 |
| Refrigerant | | Type | R-410A | R-410A | R-410A |
| | | Charge Furnished | 11 lbs. 12 oz. | 12 lbs. 8 oz. | 15 lbs. 3 oz. |
| Heating Performance | Total High Heating Capacity - Btuh | | 34,200 | 45,000 | 58,500 |
| | Total Unit Power - kW | | 2.9 | 3.9 | 4.9 |
| | ¹ COP | | 3.42 | 3.40 | 3.50 |
| | HSPF - Region IV (Region V) | | 7.70 (6.70) | 7.70 (6.70) | 7.70 (6.70) |
| | Total Low Heating Capacity - Btuh | | 20,400 | 27,400 | 33,400 |
| | Total Unit Power - kW | | 2.8 | 3.6 | 4.5 |
| | COP | | 2.18 | 2.24 | 2.20 |
| Electric Heat Available - See page 8 | | | 5, 7.5, 10, 15 kW | 5, 7.5, 10, 15, 22.5 kW | |
| Compressor Type (one per unit) | | | Scroll | Scroll | Scroll |
| Outdoor Coil | Net face area - sq. ft. | | 16.1 | 16.1 | 19.9 |
| | Tube diameter - in. | | 3/8 | 3/8 | 3/8 |
| | Number of rows | | 2 | 2 | 2 |
| | Fins / inch | | 20 | 20 | 20 |
| | Expansion device type | | Balanced port TXV, removable head | | |
| Outdoor Coil Fan | Motor HP | | (1) 1/4 (PSC) | (1) 1/4 (PSC) | (1) 1/3 (PSC) |
| | Motor rpm | | 825 | 825 | 1075 |
| | Total motor watts | | 300 | 300 | 340 |
| | Diameter - in. | | (1) 22 | (1) 22 | (1) 22 |
| | Number of blades | | 4 | 4 | 3 |
| | Total air volume - cfm | | 3200 | 3200 | 3600 |
| Indoor Coil | Net face area - sq. ft. | | 8.4 | 8.4 | 9.6 |
| | Tube diameter - in. | | 3/8 | 3/8 | 3/8 |
| | Number of rows | | 3 | 3 | 3 |
| | Fins per inch | | 14 | 14 | 14 |
| | Drain Connection (no. and size) - in. | | (1) 1 NPT | (1) 1 NPT | (1) 1 NPT |
| | Expansion device type | | Fixed Orifice | Fixed Orifice | Fixed Orifice |
| ³ Indoor Blower & Drive Selection | Nominal Motor HP | | 1 hp, 1.5 hp | 1 hp, 1.5 hp | 1 hp, 1.5 hp |
| | Maximum Usable Motor HP | | 1.15 hp, 1.7 hp | 1.15 hp, 1.7 hp | 1.15 hp, 1.7 hp |
| | Available Drive Kits | | Kit #ZA01 678-1035 rpm | Kit #ZA02 803-1226 rpm | Kit #ZA03 906-1383 rpm |
| | | | Kit #ZA04 964-1471 rpm | ⁵ Kit #ZA05 1098-1490 rpm | ⁵ Kit #ZA06 1262-1634 rpm |
| | Wheel nominal diameter x width - in. | | 10 x 10 | 10 x 10 | 10 x 10 |
| | | | | | |
| Filters | | Type | Disposable | | |
| | | Number and size - in. | (4) 14 x 20 x 2 | (4) 14 x 20 x 2 | (4) 16 x 20 x 2 |
| Electrical Characteristics - 60 Hz | | | 208/230V, 460V & 575V 3 phase | 208/230V 460V & 575V 3 phase | 208/230V 460V & 575V 3 phase |

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

¹ AHRI Certified to AHRI Standard 210/240:

Cooling Ratings - 95°F outdoor air temperature and 80°F db/67°F wb entering indoor coil air.

High Temperature Heating Ratings - 47°F db/43°F wb outdoor air temperature and 70°F entering indoor coil air.

Low Temperature Heating Ratings - 17°F db/15°F wb outdoor air temperature and 70°F entering indoor coil air.

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

³ 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.

⁵ 1.5 hp motor is the minimum required with ZA05 and ZA06 drive kits.

SPECIFICATIONS - ZHB

| General Data | | Nominal Tonnage | 3 Ton | 4 Ton | 5 Ton | 6 Ton |
|--|--|------------------|---|---|---|---|
| | | Model No. | ZHB036S4B | ZHB048S4B | ZHB060S4B | ZHB072S4B |
| | | Efficiency Type | Standard | Standard | Standard | Standard |
| Cooling Performance | Gross Cooling Capacity - Btuh | | 36,300 | 47,900 | 59,700 | 71,000 |
| | Net Cooling Capacity - Btuh | | ¹ 35,000 | ¹ 46,500 | ¹ 58,000 | ² 69,000 |
| | AHRI Rated Air Flow - cfm | | 1260 | 1520 | 2015 | 1860 |
| | ³ Sound Rating Number (SRN) (dBA) Cooling | | 79 | 77 | 82 | 86 |
| | Total Unit Power - kW | | 3.1 | 4.2 | 5.2 | 6.4 |
| | SEER (Btuh/Watt) | | ¹ 14.00 | ¹ 14.00 | ¹ 14.00 | --- |
| | IEER (Btuh/Watt) | | --- | --- | --- | ² 12.20 |
| | EER (Btuh/Watt) | | ¹ 11.40 | ¹ 11.20 | ¹ 11.20 | ² 11.00 |
| Refrigerant | | Type | R-410A | R-410A | R-410A | R-410A |
| | | Charge Furnished | 14 lbs. 8 oz. | 16 lbs. 5 oz. | 14 lbs. 4 oz. | 18 lbs. 0 oz. |
| Heating Performance | Total High Heating Capacity - Btuh | | 34,200 | 45,000 | 55,000 | 70,000 |
| | Total Unit Power - kW | | 2.9 | 3.8 | 4.5 | 6.3 |
| | ¹ COP | | 3.50 | 3.50 | 3.60 | 3.30 |
| | HSPF - Region IV (Region V) | | 8.00 (6.70) | 8.00 (6.70) | 8.00 (6.70) | --- |
| | Total Low Heating Capacity - Btuh | | 20,000 | 26,100 | 32,500 | 40,000 |
| | Total Unit Power - kW | | 2.7 | 3.5 | 4.2 | 5.4 |
| | COP | | 2.20 | 2.20 | 2.25 | 2.25 |
| Electric Heat Available - See page 8 | | | 5, 7.5, 10, 15 kW | 5, 7.5, 10, 15, 22.5 kW | 7.5, 10, 15, 22.5, 30 kW | |
| Compressor Type (one per unit) | | | Scroll | Scroll | Scroll | Scroll |
| Outdoor Coil | Net face area - sq. ft. | | 19.9 | 19.9 | 19.9 | 25.0 |
| | Tube diameter - in. | | 3/8 | 3/8 | 3/8 | 3/8 |
| | Number of rows | | 2 | 2 | 2 | 2 |
| | Fins / inch | | 20 | 20 | 20 | 20 |
| | Expansion device type | | Balanced port TXV, removable head | | | |
| Outdoor Coil Fan | Motor HP | | (1) 1/4 | (1) 1/4 | (1) 1/3 | (1) 1/3 |
| | Motor rpm | | 825 | 825 | 1075 | 1050 |
| | Total motor watts | | 300 | 300 | 350 | 350 |
| | Diameter - in. | | (1) 22 | (1) 22 | (1) 22 | (1) 24 |
| | Number of blades | | 4 | 4 | 3 | 3 |
| | Total air volume - cfm | | 3335 | 3335 | 3600 | 4350 |
| Indoor Coil | Net face area - sq. ft. | | 9.6 | 10.8 | 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 | Balanced port TXV, removable power head |
| ⁴ Indoor Blower & Drive Selection | Nominal Motor HP | | ⁵ 0.75 hp, ⁶ 1 hp, 1.5 hp | ⁵ 0.75 hp, ⁶ 1 hp, 1.5 hp | ⁵ 0.75 hp, ⁶ 1 hp, 1.5 hp | 1 hp, 1.5 hp, 2 hp |
| | Maximum Usable Motor HP | | 0.86 hp, 1.15 hp, 1.7 hp | 0.86 hp, 1.15 hp, 1.7 hp | 0.86 hp, 1.15 hp, 1.7 hp | 1.15 hp, 1.7 hp, 2.3 hp |
| | Available Drive Kits | | Kit #ZA01 678-1035 rpm | Kit #ZA02 803-1226 rpm | Kit #ZAA01 522-784 rpm | Kit #ZAA02 632-875 rpm |
| | | | Kit #ZA04 964-1471 rpm | ⁷ Kit #ZA05 1098-1490 rpm | Kit #ZAA02 632-875 rpm | ⁷ Kit #ZAA03 798-1105 rpm |
| | | | | | ⁷ Kit #ZAA03 798-1105 rpm | ⁸ Kit #ZAA04 921-1228 rpm |
| Wheel nominal diameter x width - in. | | | 10 x 10 | 10 x 10 | 15 x 9 | 15 x 9 |
| Filters | Type | | Disposable | | | |
| | Number and size - in. | | (4) 16 x 20 x 2 | (2) 16 x 20 x 2 (2) 20 x 20 x 2 | (2) 16 X 20 X 2 (2) 20 X 20 X 2 | (2) 20 x 20 x 2 (2) 16 x 20 x 2 |
| Electrical Characteristics - 60 Hz | | | 208/230V 1 phase | 208/230V, 1 phase | 208/230V, 1 phase | |
| | | | 208/230V, 460V & 575V 3 phase | 208/230V 460V & 575V 3 phase | 208/230V 460V & 575V 3 phase | 208/230V 460V & 575V 3 Phase |

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

^{1,2} AHRI Certified to AHRI Standard ¹ 210/240 or ² 340/360:

Cooling Ratings - 95°F outdoor air temperature and 80°F db/67°F wb entering indoor coil air.

High Temperature Heating Ratings - 47°F db/43°F wb outdoor air temperature and 70°F entering indoor coil air.

Low Temperature Heating Ratings - 17°F db/15°F wb outdoor air temperature and 70°F entering indoor coil air.

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

⁴ 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.

⁵ 0.75 hp motor is only available for 208/230V-1ph applications.

⁶ 1 hp blower motor is not available for 208/230V-1ph applications.

⁷ 1.5 hp motor is the minimum required with ZA05 and ZAA03 drive kits.

⁸ 2.0 hp motor is required with ZAA04 drive kits.

COOLING / HEATING RATINGS - ZHA

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 COOLING STANDARD EFFICIENCY ZHA036S4

| Entering Wet Bulb Temper- ature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil | | | | | | | | | | | | | | | | | | | | | | | |
|---|------------------------|---|-------------------------|----------------------------------|-------|------|------|-----------------------|-------------------------|----------------------------------|------|-------|------|-----------------------|-------------------------|----------------------------------|------|------|-------|-----------------------|-------------------------|----------------------------------|------|------|------|
| | | 85°F | | | | | | 95°F | | | | | | 105°F | | | | | | 115°F | | | | | |
| | | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) | | | | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) | | | | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) | | | | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) | | | |
| | | | | Dry Bulb | | | | | | Dry Bulb | | | | | | Dry Bulb | | | | | | Dry Bulb | | | |
| | | | | cfm | kBtuh | kW | 75°F | | | 80°F | 85°F | kBtuh | kW | | | 75°F | 80°F | 85°F | kBtuh | | | kW | 75°F | 80°F | 85°F |
| 63°F | 960 | 34.6 | 2.05 | 0.74 | 0.88 | 1 | 33.2 | 2.35 | 0.75 | 0.89 | 1 | 31.4 | 2.68 | 0.76 | 0.92 | 1 | 28.6 | 3.01 | 0.79 | 0.96 | 1 | | | | |
| | 1200 | 36.5 | 2.06 | 0.79 | 0.95 | 1 | 35.1 | 2.36 | 0.81 | 0.97 | 1 | 33 | 2.68 | 0.83 | 1 | 1 | 30.3 | 3.03 | 0.86 | 1 | 1 | | | | |
| | 1440 | 38 | 2.06 | 0.85 | 1 | 1 | 36.6 | 2.36 | 0.86 | 1 | 1 | 34.7 | 2.7 | 0.89 | 1 | 1 | 31.8 | 3.04 | 0.94 | 1 | 1 | | | | |
| 67°F | 960 | 36.8 | 2.06 | 0.58 | 0.71 | 0.84 | 35.4 | 2.36 | 0.59 | 0.72 | 0.86 | 33.4 | 2.69 | 0.59 | 0.74 | 0.88 | 30.3 | 3.02 | 0.61 | 0.77 | 0.93 | | | | |
| | 1200 | 38.7 | 2.07 | 0.61 | 0.77 | 0.92 | 37.1 | 2.37 | 0.62 | 0.78 | 0.94 | 34.9 | 2.7 | 0.63 | 0.81 | 0.97 | 31.6 | 3.03 | 0.66 | 0.85 | 1 | | | | |
| | 1440 | 40 | 2.07 | 0.65 | 0.82 | 0.99 | 38.2 | 2.37 | 0.66 | 0.84 | 1 | 35.9 | 2.7 | 0.67 | 0.87 | 1 | 32.4 | 3.04 | 0.7 | 0.92 | 1 | | | | |
| 71°F | 960 | 38.9 | 2.07 | 0.44 | 0.56 | 0.69 | 37.3 | 2.37 | 0.44 | 0.57 | 0.7 | 35.2 | 2.7 | 0.44 | 0.58 | 0.72 | 31.9 | 3.04 | 0.45 | 0.6 | 0.75 | | | | |
| | 1200 | 40.9 | 2.08 | 0.45 | 0.6 | 0.74 | 39.1 | 2.38 | 0.45 | 0.61 | 0.76 | 36.7 | 2.71 | 0.46 | 0.62 | 0.78 | 33.2 | 3.05 | 0.47 | 0.65 | 0.83 | | | | |
| | 1440 | 42.4 | 2.08 | 0.47 | 0.64 | 0.8 | 40.4 | 2.39 | 0.47 | 0.65 | 0.82 | 37.8 | 2.72 | 0.47 | 0.67 | 0.85 | 34.1 | 3.05 | 0.49 | 0.7 | 0.9 | | | | |

3 TON HEATING STANDARD EFFICIENCY ZHA036S4

| Indoor Coil Air Volume 70°F Dry Bulb cfm | Air Temperature Entering Outdoor Coil | | | | | | | | | |
|--|---------------------------------------|-------------------|------------------------|-------------------|------------------------|-------------------|------------------------|-------------------|------------------------|-------------------|
| | 65°F | | 45°F | | 25°F | | 5°F | | -15°F | |
| | Total Heating Capacity | Comp. Motor Input | Total Heating Capacity | Comp. Motor Input | Total Heating Capacity | Comp. Motor Input | Total Heating Capacity | Comp. Motor Input | Total Heating Capacity | Comp. Motor Input |
| | kBtuh | kW | kBtuh | kW | kBtuh | kW | kBtuh | kW | kBtuh | kW |
| 960 | 42.2 | 2.55 | 32.7 | 2.39 | 23.1 | 2.23 | 15.1 | 2.01 | 7.8 | 1.51 |
| 1200 | 42.4 | 2.37 | 32.9 | 2.21 | 23.3 | 2.04 | 15.3 | 1.82 | 7.9 | 1.32 |
| 1440 | 42.6 | 2.27 | 33.2 | 2.11 | 23.6 | 1.95 | 15.5 | 1.72 | 8.2 | 1.23 |

4 TON COOLING STANDARD EFFICIENCY ZHA048S4

| 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 | | |
| | | | | 75°F | 80°F | 85°F | | | kBtuh | kW | 75°F | | | 80°F | 85°F | kBtuh | | | kW | 75°F | 80°F |
| 63°F | 1280 | 46.3 | 2.99 | 0.73 | 0.88 | 1 | 41.9 | 3.39 | 0.73 | 0.9 | 1 | 37.3 | 3.85 | 0.74 | 0.93 | 1 | 32.5 | 4.39 | 0.76 | 0.97 | 1 |
| | 1600 | 49.4 | 3.01 | 0.79 | 0.96 | 1 | 44.8 | 3.41 | 0.81 | 0.98 | 1 | 40.2 | 3.87 | 0.83 | 1 | 1 | 35.6 | 4.41 | 0.86 | 1 | 1 |
| | 1920 | 52 | 3.03 | 0.85 | 1 | 1 | 47.7 | 3.42 | 0.87 | 1 | 1 | 43.2 | 3.89 | 0.9 | 1 | 1 | 38.4 | 4.44 | 0.94 | 1 | 1 |
| 67°F | 1280 | 50.1 | 3.01 | 0.56 | 0.71 | 0.85 | 45.6 | 3.41 | 0.55 | 0.71 | 0.87 | 40.9 | 3.87 | 0.54 | 0.72 | 0.89 | 35.7 | 4.41 | 0.53 | 0.74 | 0.93 |
| | 1600 | 53.2 | 3.03 | 0.6 | 0.77 | 0.93 | 48.4 | 3.43 | 0.6 | 0.79 | 0.95 | 43.4 | 3.9 | 0.6 | 0.81 | 0.98 | 38 | 4.43 | 0.6 | 0.84 | 1 |
| | 1920 | 55.3 | 3.05 | 0.64 | 0.84 | 0.99 | 50.4 | 3.45 | 0.64 | 0.86 | 1 | 45.1 | 3.91 | 0.65 | 0.88 | 1 | 39.5 | 4.45 | 0.66 | 0.92 | 1 |
| 71°F | 1280 | 53.8 | 3.03 | 0.4 | 0.55 | 0.69 | 49.3 | 3.43 | 0.39 | 0.54 | 0.69 | 44.3 | 3.9 | 0.36 | 0.54 | 0.71 | 39.1 | 4.44 | 0.33 | 0.53 | 0.72 |
| | 1600 | 57 | 3.06 | 0.43 | 0.59 | 0.75 | 52.1 | 3.46 | 0.41 | 0.59 | 0.77 | 47 | 3.93 | 0.39 | 0.6 | 0.79 | 41.5 | 4.47 | 0.37 | 0.6 | 0.82 |
| | 1920 | 59.5 | 3.08 | 0.45 | 0.64 | 0.82 | 54.3 | 3.48 | 0.43 | 0.64 | 0.84 | 48.8 | 3.95 | 0.42 | 0.65 | 0.86 | 43 | 4.49 | 0.4 | 0.67 | 0.9 |

4 TON HEATING STANDARD EFFICIENCY ZHA048S4

| Indoor Coil Air Volume 70°F Dry Bulb cfm | Air Temperature Entering Outdoor Coil | | | | | | | | | |
|--|---------------------------------------|-------------------|------------------------|-------------------|------------------------|-------------------|------------------------|-------------------|------------------------|-------------------|
| | 65°F | | 45°F | | 25°F | | 5°F | | -15°F | |
| | Total Heating Capacity | Comp. Motor Input | Total Heating Capacity | Comp. Motor Input | Total Heating Capacity | Comp. Motor Input | Total Heating Capacity | Comp. Motor Input | Total Heating Capacity | Comp. Motor Input |
| | kBtuh | kW | kBtuh | kW | kBtuh | kW | kBtuh | kW | kBtuh | kW |
| 1280 | 54.5 | 3.33 | 42.3 | 3.12 | 29.7 | 2.91 | 20 | 2.64 | 9.9 | 1.98 |
| 1600 | 55.2 | 3.12 | 43.1 | 2.91 | 30.5 | 2.7 | 20.8 | 2.43 | 10.7 | 1.77 |
| 1920 | 55.9 | 3 | 43.8 | 2.79 | 31.2 | 2.58 | 21.5 | 2.31 | 11.4 | 1.64 |

COOLING / HEATING RATINGS - ZHA

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

5 TON COOLING STANDARD EFFICIENCY ZHA060S4

| 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 | | |
| | | | | 75°F | 80°F | 85°F | | | 75°F | 80°F | 85°F | | | 75°F | 80°F | 85°F | | | 75°F | 80°F | 85°F |
| cfm | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | |
| 63°F | 1600 | 58.4 | 3.7 | 0.73 | 0.88 | 1 | 53.3 | 4.17 | 0.74 | 0.9 | 1 | 47.8 | 4.72 | 0.75 | 0.93 | 1 | 42.1 | 5.37 | 0.77 | 0.96 | 1 |
| | 2000 | 62 | 3.72 | 0.79 | 0.95 | 1 | 56.8 | 4.2 | 0.81 | 0.98 | 1 | 51.1 | 4.75 | 0.83 | 1 | 1 | 45.7 | 5.42 | 0.86 | 1 | 1 |
| | 2400 | 65.2 | 3.74 | 0.85 | 1 | 1 | 60.2 | 4.22 | 0.87 | 1 | 1 | 54.7 | 4.79 | 0.9 | 1 | 1 | 49 | 5.46 | 0.94 | 1 | 1 |
| 67°F | 1600 | 62.9 | 3.72 | 0.56 | 0.71 | 0.84 | 57.7 | 4.21 | 0.55 | 0.71 | 0.86 | 51.9 | 4.76 | 0.55 | 0.73 | 0.89 | 45.9 | 5.42 | 0.54 | 0.75 | 0.93 |
| | 2000 | 66.7 | 3.75 | 0.6 | 0.77 | 0.92 | 61.2 | 4.23 | 0.6 | 0.79 | 0.95 | 55.1 | 4.79 | 0.6 | 0.81 | 0.98 | 48.7 | 5.46 | 0.6 | 0.84 | 1 |
| | 2400 | 69.5 | 3.77 | 0.64 | 0.83 | 0.98 | 63.5 | 4.25 | 0.64 | 0.85 | 1 | 57.3 | 4.81 | 0.65 | 0.88 | 1 | 50.7 | 5.48 | 0.66 | 0.91 | 1 |
| 71°F | 1600 | 67.4 | 3.75 | 0.41 | 0.55 | 0.68 | 62.1 | 4.24 | 0.39 | 0.55 | 0.69 | 56.1 | 4.8 | 0.38 | 0.54 | 0.71 | 50 | 5.47 | 0.35 | 0.54 | 0.73 |
| | 2000 | 71.3 | 3.78 | 0.43 | 0.59 | 0.75 | 65.7 | 4.27 | 0.42 | 0.59 | 0.77 | 59.5 | 4.84 | 0.4 | 0.6 | 0.79 | 52.8 | 5.5 | 0.39 | 0.6 | 0.82 |
| | 2400 | 74.4 | 3.8 | 0.45 | 0.63 | 0.81 | 68.3 | 4.29 | 0.44 | 0.64 | 0.83 | 61.7 | 4.86 | 0.43 | 0.65 | 0.86 | 54.9 | 5.54 | 0.42 | 0.67 | 0.89 |

5 TON HEATING STANDARD EFFICIENCY ZHA060S4

| Indoor Coil Air Volume 70°F Dry Bulb cfm | Air Temperature Entering Outdoor Coil | | | | | | | | | |
|--|---------------------------------------|-------------------|------------------------|-------------------|------------------------|-------------------|------------------------|-------------------|------------------------|-------------------|
| | 65°F | | 45°F | | 25°F | | 5°F | | -15°F | |
| | Total Heating Capacity | Comp. Motor Input | Total Heating Capacity | Comp. Motor Input | Total Heating Capacity | Comp. Motor Input | Total Heating Capacity | Comp. Motor Input | Total Heating Capacity | Comp. Motor Input |
| | kBtuh | kW | kBtuh | kW | kBtuh | kW | kBtuh | kW | kBtuh | kW |
| | | | | | | | | | | |
| 1600 | 72.9 | 4.28 | 55.2 | 3.98 | 36.8 | 3.68 | 23.8 | 3.28 | 12.1 | 2.45 |
| 2000 | 73.7 | 4.04 | 56 | 3.74 | 37.6 | 3.44 | 24.6 | 3.04 | 13 | 2.21 |
| 2400 | 74.4 | 3.9 | 56.7 | 3.6 | 38.3 | 3.29 | 25.3 | 2.9 | 13.6 | 2.07 |

COOLING / HEATING RATINGS - ZHB

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 COOLING STANDARD EFFICIENCY ZHB036S4

| Entering Wet Bulb Temperature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|------------------|---|-------------------|-------------------------------|-------|------|------|-----------------|-------------------|-------------------------------|------|-------|------|-----------------|-------------------|-------------------------------|------|------|-------|-----------------|-------------------|-------------------------------|------|------|------|
| | | 85°F | | | | | | 95°F | | | | | | 105°F | | | | | | 115°F | | | | | |
| | | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) | | | | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) | | | | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) | | | | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) | | | |
| | | | | Dry Bulb | | | | | | Dry Bulb | | | | | | Dry Bulb | | | | | | Dry Bulb | | | |
| | | | | cfm | kBtuh | kW | 75°F | | | 80°F | 85°F | kBtuh | kW | | | 75°F | 80°F | 85°F | kBtuh | | | kW | 75°F | 80°F | 85°F |
| 63°F | 960 | 34.7 | 2.11 | 0.7 | 0.85 | 1 | 31.7 | 2.38 | 0.7 | 0.88 | 1 | 28.6 | 2.7 | 0.72 | 0.92 | 1 | 25.4 | 3.08 | 0.74 | 0.96 | 1 | | | | |
| | 1200 | 36.9 | 2.12 | 0.76 | 0.95 | 1 | 33.8 | 2.39 | 0.78 | 0.98 | 1 | 30.7 | 2.71 | 0.8 | 1 | 1 | 27.7 | 3.09 | 0.84 | 1 | 1 | | | | |
| | 1440 | 38.9 | 2.13 | 0.83 | 1 | 1 | 36 | 2.4 | 0.85 | 1 | 1 | 33 | 2.73 | 0.89 | 1 | 1 | 29.7 | 3.09 | 0.93 | 1 | 1 | | | | |
| 67°F | 960 | 37.3 | 2.12 | 0.54 | 0.68 | 0.82 | 34.3 | 2.4 | 0.53 | 0.68 | 0.84 | 31.1 | 2.71 | 0.53 | 0.7 | 0.87 | 27.7 | 3.08 | 0.53 | 0.72 | 0.92 | | | | |
| | 1200 | 39.6 | 2.13 | 0.58 | 0.74 | 0.91 | 36.3 | 2.4 | 0.58 | 0.76 | 0.94 | 32.9 | 2.73 | 0.58 | 0.78 | 0.98 | 29.4 | 3.09 | 0.59 | 0.81 | 1 | | | | |
| | 1440 | 41.2 | 2.14 | 0.61 | 0.8 | 0.99 | 37.8 | 2.41 | 0.62 | 0.83 | 1 | 34.3 | 2.73 | 0.63 | 0.86 | 1 | 30.5 | 3.09 | 0.64 | 0.91 | 1 | | | | |
| 71°F | 960 | 40 | 2.13 | 0.39 | 0.53 | 0.66 | 36.8 | 2.41 | 0.38 | 0.52 | 0.66 | 33.6 | 2.72 | 0.37 | 0.52 | 0.68 | 30 | 3.09 | 0.35 | 0.52 | 0.7 | | | | |
| | 1200 | 42.4 | 2.15 | 0.41 | 0.57 | 0.72 | 39 | 2.42 | 0.4 | 0.57 | 0.73 | 35.5 | 2.73 | 0.39 | 0.58 | 0.75 | 31.8 | 3.1 | 0.38 | 0.58 | 0.79 | | | | |
| | 1440 | 44 | 2.16 | 0.43 | 0.61 | 0.78 | 40.5 | 2.43 | 0.42 | 0.62 | 0.81 | 36.9 | 2.74 | 0.42 | 0.62 | 0.84 | 33 | 3.11 | 0.41 | 0.64 | 0.88 | | | | |

3 TON HEATING STANDARD EFFICIENCY ZHB036S4

| Indoor Coil Air Volume 70°F Dry Bulb cfm | Air Temperature Entering Outdoor Coil | | | | | | | | | |
|--|---------------------------------------|-------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|
| | 65°F | | 45°F | | 25°F | | 5°F | | -15°F | |
| | Total Heating Capacity | Comp. Motor Input Input | Total Heating Capacity | Comp. Motor Input Input | Total Heating Capacity | Comp. Motor Input Input | Total Heating Capacity | Comp. Motor Input Input | Total Heating Capacity | Comp. Motor Input Input |
| | kBtuh | kW | kBtuh | kW | kBtuh | kW | kBtuh | kW | kBtuh | kW |
| 960 | 41.2 | 2.49 | 32 | 2.38 | 22.6 | 2.27 | 15.1 | 2.07 | 7.5 | 1.54 |
| 1200 | 41.9 | 2.32 | 32.7 | 2.22 | 23.3 | 2.11 | 15.9 | 1.91 | 8.2 | 1.38 |
| 1440 | 42.5 | 2.23 | 33.3 | 2.13 | 23.8 | 2.02 | 16.4 | 1.82 | 8.7 | 1.29 |

4 TON COOLING STANDARD EFFICIENCY ZHB048S4

| 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 | | |
| | | | | 75°F | 80°F | 85°F | | | kBtuh | kW | 75°F | | | 80°F | 85°F | kBtuh | | | kW | 75°F | 80°F |
| 63°F | 1280 | 45.5 | 2.92 | 0.69 | 0.85 | 1 | 41.9 | 3.32 | 0.7 | 0.87 | 1 | 38.2 | 3.78 | 0.71 | 0.9 | 1 | 34.1 | 4.32 | 0.73 | 0.95 | 1 |
| | 1600 | 48.4 | 2.93 | 0.75 | 0.94 | 1 | 44.7 | 3.32 | 0.77 | 0.97 | 1 | 40.9 | 3.78 | 0.79 | 1 | 1 | 37 | 4.32 | 0.82 | 1 | 1 |
| | 1920 | 50.9 | 2.93 | 0.81 | 1 | 1 | 47.4 | 3.35 | 0.84 | 1 | 1 | 43.7 | 3.81 | 0.87 | 1 | 1 | 39.7 | 4.32 | 0.91 | 1 | 1 |
| 67°F | 1280 | 49 | 2.93 | 0.53 | 0.67 | 0.81 | 45.3 | 3.33 | 0.53 | 0.68 | 0.83 | 41.3 | 3.78 | 0.52 | 0.69 | 0.86 | 37.1 | 4.33 | 0.53 | 0.71 | 0.9 |
| | 1600 | 51.7 | 2.93 | 0.57 | 0.73 | 0.9 | 47.8 | 3.35 | 0.57 | 0.74 | 0.93 | 43.7 | 3.79 | 0.57 | 0.76 | 0.97 | 39.2 | 4.33 | 0.58 | 0.79 | 1 |
| | 1920 | 53.8 | 2.94 | 0.6 | 0.79 | 0.98 | 49.7 | 3.35 | 0.61 | 0.81 | 1 | 45.4 | 3.8 | 0.62 | 0.84 | 1 | 40.8 | 4.33 | 0.63 | 0.88 | 1 |
| 71°F | 1280 | 52.3 | 2.93 | 0.39 | 0.52 | 0.65 | 48.5 | 3.35 | 0.38 | 0.52 | 0.66 | 44.5 | 3.8 | 0.37 | 0.52 | 0.67 | 40.1 | 4.35 | 0.35 | 0.52 | 0.69 |
| | 1600 | 55.3 | 2.94 | 0.41 | 0.56 | 0.71 | 51.3 | 3.35 | 0.4 | 0.56 | 0.72 | 47 | 3.82 | 0.39 | 0.57 | 0.74 | 42.3 | 4.35 | 0.38 | 0.58 | 0.77 |
| | 1920 | 57.4 | 2.95 | 0.43 | 0.6 | 0.77 | 53.1 | 3.37 | 0.42 | 0.6 | 0.79 | 48.8 | 3.84 | 0.41 | 0.62 | 0.82 | 43.8 | 4.35 | 0.41 | 0.63 | 0.86 |

4 TON HEATING STANDARD EFFICIENCY ZHB048S4

| Indoor Coil Air Volume 70°F Dry Bulb cfm | Air Temperature Entering Outdoor Coil | | | | | | | | | |
|--|---------------------------------------|-------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|
| | 65°F | | 45°F | | 25°F | | 5°F | | -15°F | |
| | Total Heating Capacity | Comp. Motor Input Input | Total Heating Capacity | Comp. Motor Input Input | Total Heating Capacity | Comp. Motor Input Input | Total Heating Capacity | Comp. Motor Input Input | Total Heating Capacity | Comp. Motor Input Input |
| | kBtuh | kW | kBtuh | kW | kBtuh | kW | kBtuh | kW | kBtuh | kW |
| 1280 | 50.8 | 3.58 | 43.4 | 3.18 | 36.2 | 2.77 | 25.6 | 2.42 | 12.2 | 1.85 |
| 1600 | 51.8 | 3.35 | 44.3 | 2.95 | 37.1 | 2.55 | 26.5 | 2.19 | 13.1 | 1.62 |
| 1920 | 52.5 | 3.21 | 45 | 2.82 | 37.9 | 2.41 | 27.3 | 2.06 | 13.9 | 1.48 |

COOLING / HEATING RATINGS - ZHB

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

5 TON COOLING STANDARD EFFICIENCY ZHB060S4

| Entering Wet Bulb Temper- ature | Total Air Volume | Outdoor Air Temperature Entering Outdoor Coil | | | | | | | | | | | | | | | | | | | |
|---|------------------------|---|-------------------------|----------------------------------|------|------|-----------------------|-------------------------|----------------------------------|------|------|-----------------------|-------------------------|----------------------------------|------|------|-----------------------|-------------------------|----------------------------------|------|------|
| | | 85°F | | | | | 95°F | | | | | 105°F | | | | | 115°F | | | | |
| | | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) | | | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) | | | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) | | | Total Cool Cap. | Comp. Motor Input | Sensible To Total Ratio (S/T) | | |
| | | | | Dry Bulb | | | | | Dry Bulb | | | | | Dry Bulb | | | | | Dry Bulb | | |
| | | cfm | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F | 85°F | kBtuh | kW | 75°F | 80°F |
| 63°F | 1600 | 56.7 | 3.61 | 0.68 | 0.86 | 1 | 50.2 | 4.08 | 0.68 | 0.87 | 1 | 43.5 | 4.65 | 0.68 | 0.9 | 1 | 36.6 | 5.32 | 0.68 | 0.94 | 1 |
| | 2000 | 61.2 | 3.63 | 0.75 | 0.95 | 1 | 54.6 | 4.11 | 0.76 | 0.98 | 1 | 47.7 | 4.68 | 0.78 | 1 | 1 | 41.2 | 5.36 | 0.8 | 1 | 1 |
| | 2400 | 65.3 | 3.66 | 0.82 | 1 | 1 | 58.9 | 4.14 | 0.84 | 1 | 1 | 52.4 | 4.7 | 0.86 | 1 | 1 | 45.4 | 5.38 | 0.9 | 1 | 1 |
| 67°F | 1600 | 62.3 | 3.64 | 0.51 | 0.67 | 0.82 | 55.6 | 4.12 | 0.49 | 0.66 | 0.84 | 48.7 | 4.69 | 0.46 | 0.66 | 0.86 | 41.3 | 5.34 | 0.43 | 0.67 | 0.9 |
| | 2000 | 66.8 | 3.66 | 0.56 | 0.74 | 0.91 | 59.7 | 4.14 | 0.54 | 0.74 | 0.94 | 52.4 | 4.71 | 0.53 | 0.76 | 0.97 | 44.7 | 5.38 | 0.51 | 0.78 | 1 |
| | 2400 | 69.9 | 3.68 | 0.6 | 0.8 | 0.99 | 62.7 | 4.16 | 0.59 | 0.82 | 1 | 55.1 | 4.72 | 0.59 | 0.84 | 1 | 47.1 | 5.39 | 0.58 | 0.88 | 1 |
| 71°F | 1600 | 67.9 | 3.66 | 0.36 | 0.51 | 0.65 | 61.2 | 4.15 | 0.33 | 0.49 | 0.65 | 53.9 | 4.71 | 0.28 | 0.47 | 0.65 | 46.5 | 5.4 | 0.24 | 0.45 | 0.65 |
| | 2000 | 72.6 | 3.69 | 0.39 | 0.56 | 0.72 | 65.4 | 4.18 | 0.36 | 0.55 | 0.73 | 57.8 | 4.74 | 0.33 | 0.54 | 0.74 | 49.8 | 5.41 | 0.28 | 0.52 | 0.76 |
| | 2400 | 75.9 | 3.71 | 0.41 | 0.6 | 0.78 | 68.4 | 4.19 | 0.39 | 0.6 | 0.8 | 60.5 | 4.76 | 0.36 | 0.59 | 0.82 | 52.2 | 5.44 | 0.32 | 0.6 | 0.86 |

5 TON HEATING STANDARD EFFICIENCY ZHB060S4

| Indoor Coil Air Volume 70°F Dry Bulb cfm | Air Temperature Entering Outdoor Coil | | | | | | | | | |
|--|---------------------------------------|-------------------|------------------------|-------------------|------------------------|-------------------|------------------------|-------------------|------------------------|-------------------|
| | 65°F | | 45°F | | 25°F | | 5°F | | -15°F | |
| | Total Heating Capacity | Comp. Motor Input | Total Heating Capacity | Comp. Motor Input | Total Heating Capacity | Comp. Motor Input | Total Heating Capacity | Comp. Motor Input | Total Heating Capacity | Comp. Motor Input |
| | kBtuh | kW | kBtuh | kW | kBtuh | kW | kBtuh | kW | kBtuh | kW |
| 1600 | 61.7 | 3.84 | 52.8 | 3.65 | 44.4 | 3.46 | 31.7 | 3.14 | 15.1 | 2.34 |
| 2000 | 62.7 | 3.59 | 53.9 | 3.4 | 45.5 | 3.21 | 32.8 | 2.9 | 16.2 | 2.1 |
| 2400 | 63.7 | 3.45 | 54.8 | 3.26 | 46.4 | 3.07 | 33.7 | 2.75 | 17.1 | 1.95 |

6 TON COOLING STANDARD EFFICIENCY ZHB072S4

| 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 |
| 63°F | 1800 | 69.3 | 4.91 | 0.71 | 0.84 | 0.97 | 64.8 | 5.48 | 0.71 | 0.86 | 0.99 | 60 | 6.1 | 0.73 | 0.88 | 1 | 54.9 | 6.83 | 0.75 | 0.91 | 1 |
| | 2300 | 73.6 | 4.96 | 0.76 | 0.92 | 1 | 68.8 | 5.52 | 0.78 | 0.94 | 1 | 63.8 | 6.14 | 0.8 | 0.97 | 1 | 58.5 | 6.85 | 0.82 | 1 | 1 |
| | 2800 | 76.9 | 4.98 | 0.82 | 0.99 | 1 | 72.1 | 5.55 | 0.84 | 1 | 1 | 67.2 | 6.18 | 0.86 | 1 | 1 | 62 | 6.87 | 0.89 | 1 | 1 |
| 67°F | 1800 | 73.8 | 4.96 | 0.56 | 0.68 | 0.81 | 69.1 | 5.52 | 0.56 | 0.69 | 0.83 | 64.2 | 6.14 | 0.56 | 0.71 | 0.85 | 58.7 | 6.85 | 0.56 | 0.72 | 0.88 |
| | 2300 | 78.1 | 4.99 | 0.59 | 0.74 | 0.89 | 73.1 | 5.56 | 0.6 | 0.76 | 0.91 | 67.6 | 6.17 | 0.6 | 0.78 | 0.94 | 62 | 6.86 | 0.61 | 0.8 | 0.98 |
| | 2800 | 81 | 5.01 | 0.62 | 0.8 | 0.96 | 75.7 | 5.57 | 0.63 | 0.82 | 0.98 | 70.2 | 6.19 | 0.64 | 0.84 | 1 | 64.4 | 6.89 | 0.66 | 0.87 | 1 |
| 71°F | 1800 | 78.2 | 4.99 | 0.42 | 0.54 | 0.66 | 73.4 | 5.56 | 0.41 | 0.55 | 0.67 | 68.1 | 6.18 | 0.41 | 0.55 | 0.68 | 62.7 | 6.87 | 0.4 | 0.55 | 0.7 |
| | 2300 | 82.6 | 5.02 | 0.44 | 0.58 | 0.72 | 77.6 | 5.59 | 0.43 | 0.59 | 0.74 | 72 | 6.22 | 0.43 | 0.6 | 0.76 | 66.1 | 6.9 | 0.43 | 0.61 | 0.78 |
| | 2800 | 85.7 | 5.05 | 0.45 | 0.62 | 0.78 | 80.3 | 5.61 | 0.45 | 0.63 | 0.8 | 74.5 | 6.23 | 0.45 | 0.64 | 0.82 | 68.3 | 6.91 | 0.45 | 0.66 | 0.85 |

6 TON HEATING STANDARD EFFICIENCY ZHB072S4

| Indoor Coil Air Volume 70°F Dry Bulb cfm | Air Temperature Entering Outdoor Coil | | | | | | | | | |
|--|---------------------------------------|-------------------|------------------------|-------------------|------------------------|-------------------|------------------------|-------------------|------------------------|-------------------|
| | 65°F | | 45°F | | 25°F | | 5°F | | -15°F | |
| | Total Heating Capacity | Comp. Motor Input | Total Heating Capacity | Comp. Motor Input | Total Heating Capacity | Comp. Motor Input | Total Heating Capacity | Comp. Motor Input | Total Heating Capacity | Comp. Motor Input |
| | kBtuh | kW | kBtuh | kW | kBtuh | kW | kBtuh | kW | kBtuh | kW |
| 1800 | 89.1 | 5.92 | 68.6 | 5.47 | 48.1 | 5.01 | 29.3 | 4.43 | 14.7 | 3.33 |
| 2300 | 90.5 | 5.56 | 70.1 | 5.1 | 49.5 | 4.64 | 30.8 | 4.06 | 16.1 | 2.97 |
| 2800 | 91.5 | 5.35 | 71 | 4.89 | 50.5 | 4.43 | 31.7 | 3.85 | 17.1 | 2.76 |

BLOWER DATA - BELT DRIVE - ZHA036**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 24 for blower motors and drives and wet coil and options/accessory air resistance data.

DOWNFLOW

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.10 | | 0.20 | | 0.30 | | 0.40 | | 0.50 | | 0.60 | | 0.70 | | 0.80 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 900 | 562 | 0.16 | 629 | 0.18 | 699 | 0.19 | 771 | 0.2 | 840 | 0.22 | 904 | 0.24 | 962 | 0.26 | 1015 | 0.29 |
| 1000 | 586 | 0.18 | 654 | 0.2 | 725 | 0.21 | 796 | 0.23 | 864 | 0.25 | 927 | 0.27 | 983 | 0.3 | 1034 | 0.33 |
| 1100 | 612 | 0.2 | 681 | 0.22 | 752 | 0.24 | 823 | 0.26 | 890 | 0.28 | 950 | 0.31 | 1004 | 0.34 | 1054 | 0.37 |
| 1200 | 641 | 0.23 | 711 | 0.25 | 783 | 0.27 | 852 | 0.29 | 917 | 0.32 | 975 | 0.35 | 1027 | 0.39 | 1074 | 0.42 |
| 1300 | 673 | 0.25 | 744 | 0.28 | 815 | 0.3 | 882 | 0.33 | 944 | 0.36 | 1000 | 0.4 | 1050 | 0.44 | 1096 | 0.48 |
| 1400 | 709 | 0.29 | 779 | 0.32 | 849 | 0.34 | 914 | 0.37 | 973 | 0.41 | 1026 | 0.45 | 1074 | 0.49 | 1118 | 0.53 |
| 1500 | 747 | 0.33 | 816 | 0.36 | 883 | 0.39 | 945 | 0.42 | 1001 | 0.46 | 1052 | 0.51 | 1098 | 0.55 | 1141 | 0.59 |

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.90 | | 1.00 | | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 900 | 1065 | 0.32 | 1112 | 0.35 | 1158 | 0.38 | 1202 | 0.41 | 1243 | 0.44 | 1284 | 0.48 | 1323 | 0.52 | 1364 | 0.55 |
| 1000 | 1082 | 0.36 | 1128 | 0.39 | 1173 | 0.42 | 1216 | 0.45 | 1257 | 0.49 | 1297 | 0.53 | 1336 | 0.57 | 1375 | 0.6 |
| 1100 | 1100 | 0.4 | 1145 | 0.44 | 1189 | 0.47 | 1231 | 0.51 | 1272 | 0.54 | 1311 | 0.58 | 1349 | 0.62 | 1388 | 0.66 |
| 1200 | 1119 | 0.45 | 1163 | 0.49 | 1206 | 0.52 | 1247 | 0.56 | 1287 | 0.6 | 1326 | 0.64 | 1364 | 0.68 | 1402 | 0.72 |
| 1300 | 1139 | 0.51 | 1182 | 0.55 | 1224 | 0.58 | 1265 | 0.62 | 1304 | 0.66 | 1342 | 0.71 | 1379 | 0.75 | 1416 | 0.79 |
| 1400 | 1160 | 0.57 | 1202 | 0.61 | 1243 | 0.65 | 1283 | 0.69 | 1322 | 0.73 | 1359 | 0.78 | 1396 | 0.82 | 1432 | 0.87 |
| 1500 | 1182 | 0.64 | 1223 | 0.68 | 1263 | 0.72 | 1303 | 0.76 | 1341 | 0.81 | 1378 | 0.85 | 1414 | 0.9 | 1449 | 0.94 |

HORIZONTAL

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.10 | | 0.20 | | 0.30 | | 0.40 | | 0.50 | | 0.60 | | 0.70 | | 0.80 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 900 | 580 | 0.14 | 649 | 0.17 | 721 | 0.19 | 794 | 0.22 | 868 | 0.24 | 938 | 0.27 | 998 | 0.3 | 1045 | 0.33 |
| 1000 | 612 | 0.17 | 681 | 0.19 | 752 | 0.22 | 825 | 0.25 | 897 | 0.27 | 963 | 0.3 | 1017 | 0.33 | 1061 | 0.37 |
| 1100 | 647 | 0.2 | 717 | 0.23 | 788 | 0.26 | 858 | 0.28 | 926 | 0.31 | 986 | 0.34 | 1036 | 0.38 | 1077 | 0.41 |
| 1200 | 687 | 0.23 | 757 | 0.26 | 826 | 0.29 | 893 | 0.32 | 955 | 0.35 | 1008 | 0.39 | 1054 | 0.42 | 1095 | 0.46 |
| 1300 | 730 | 0.27 | 798 | 0.3 | 864 | 0.33 | 926 | 0.37 | 982 | 0.4 | 1030 | 0.44 | 1073 | 0.47 | 1116 | 0.51 |
| 1400 | 775 | 0.31 | 840 | 0.34 | 902 | 0.38 | 959 | 0.42 | 1009 | 0.46 | 1054 | 0.5 | 1096 | 0.53 | 1140 | 0.56 |
| 1500 | 820 | 0.36 | 881 | 0.4 | 939 | 0.44 | 993 | 0.49 | 1039 | 0.53 | 1082 | 0.56 | 1124 | 0.59 | 1168 | 0.62 |

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.90 | | 1.00 | | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 900 | 1091 | 0.36 | 1140 | 0.38 | 1188 | 0.4 | 1232 | 0.43 | 1272 | 0.46 | 1309 | 0.49 | 1346 | 0.53 | 1383 | 0.57 |
| 1000 | 1105 | 0.4 | 1154 | 0.42 | 1201 | 0.45 | 1245 | 0.47 | 1284 | 0.5 | 1321 | 0.54 | 1357 | 0.58 | 1394 | 0.62 |
| 1100 | 1121 | 0.44 | 1169 | 0.47 | 1216 | 0.49 | 1259 | 0.52 | 1298 | 0.56 | 1335 | 0.6 | 1370 | 0.64 | 1406 | 0.69 |
| 1200 | 1139 | 0.49 | 1187 | 0.52 | 1234 | 0.54 | 1276 | 0.58 | 1314 | 0.62 | 1350 | 0.66 | 1385 | 0.71 | 1421 | 0.75 |
| 1300 | 1161 | 0.54 | 1208 | 0.57 | 1254 | 0.6 | 1295 | 0.64 | 1332 | 0.69 | 1366 | 0.73 | 1401 | 0.78 | 1436 | 0.83 |
| 1400 | 1185 | 0.59 | 1232 | 0.63 | 1276 | 0.67 | 1315 | 0.71 | 1351 | 0.76 | 1384 | 0.81 | 1419 | 0.86 | 1454 | 0.9 |
| 1500 | 1212 | 0.66 | 1257 | 0.7 | 1299 | 0.74 | 1337 | 0.79 | 1371 | 0.84 | 1404 | 0.89 | 1438 | 0.94 | 1473 | 0.99 |

BLOWER DATA - BELT DRIVE - ZHA048**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 24 for blower motors and drives and wet coil and options/accessory air resistance data.

DOWNFLOW

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.10 | | 0.20 | | 0.30 | | 0.40 | | 0.50 | | 0.60 | | 0.70 | | 0.80 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1200 | 641 | 0.23 | 711 | 0.25 | 783 | 0.27 | 852 | 0.29 | 917 | 0.32 | 975 | 0.35 | 1027 | 0.39 | 1074 | 0.42 |
| 1300 | 673 | 0.25 | 744 | 0.28 | 815 | 0.30 | 882 | 0.33 | 944 | 0.36 | 1000 | 0.40 | 1050 | 0.44 | 1096 | 0.48 |
| 1400 | 709 | 0.29 | 779 | 0.32 | 849 | 0.34 | 914 | 0.37 | 973 | 0.41 | 1026 | 0.45 | 1074 | 0.49 | 1118 | 0.53 |
| 1500 | 747 | 0.33 | 816 | 0.36 | 883 | 0.39 | 945 | 0.42 | 1001 | 0.46 | 1052 | 0.51 | 1098 | 0.55 | 1141 | 0.59 |
| 1600 | 787 | 0.38 | 854 | 0.41 | 918 | 0.44 | 976 | 0.48 | 1030 | 0.52 | 1078 | 0.56 | 1123 | 0.61 | 1164 | 0.66 |
| 1700 | 827 | 0.43 | 892 | 0.46 | 952 | 0.49 | 1007 | 0.53 | 1058 | 0.58 | 1105 | 0.63 | 1148 | 0.68 | 1189 | 0.73 |
| 1800 | 868 | 0.48 | 929 | 0.52 | 986 | 0.55 | 1038 | 0.59 | 1087 | 0.64 | 1132 | 0.69 | 1174 | 0.75 | 1214 | 0.80 |
| 1900 | 907 | 0.54 | 966 | 0.58 | 1019 | 0.62 | 1069 | 0.66 | 1116 | 0.71 | 1160 | 0.77 | 1200 | 0.82 | 1240 | 0.88 |
| 2000 | 946 | 0.60 | 1001 | 0.65 | 1053 | 0.69 | 1101 | 0.74 | 1146 | 0.79 | 1188 | 0.85 | 1228 | 0.91 | 1267 | 0.98 |

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.90 | | 1.00 | | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1200 | 1119 | 0.45 | 1163 | 0.49 | 1206 | 0.52 | 1247 | 0.56 | 1287 | 0.60 | 1326 | 0.64 | 1364 | 0.68 | 1402 | 0.72 |
| 1300 | 1139 | 0.51 | 1182 | 0.55 | 1224 | 0.58 | 1265 | 0.62 | 1304 | 0.66 | 1342 | 0.71 | 1379 | 0.75 | 1416 | 0.79 |
| 1400 | 1160 | 0.57 | 1202 | 0.61 | 1243 | 0.65 | 1283 | 0.69 | 1322 | 0.73 | 1359 | 0.78 | 1396 | 0.82 | 1432 | 0.87 |
| 1500 | 1182 | 0.64 | 1223 | 0.68 | 1263 | 0.72 | 1303 | 0.76 | 1341 | 0.81 | 1378 | 0.85 | 1414 | 0.90 | 1449 | 0.94 |
| 1600 | 1205 | 0.70 | 1245 | 0.75 | 1284 | 0.79 | 1323 | 0.84 | 1361 | 0.88 | 1397 | 0.93 | 1432 | 0.98 | 1467 | 1.03 |
| 1700 | 1228 | 0.78 | 1268 | 0.82 | 1307 | 0.87 | 1345 | 0.92 | 1382 | 0.97 | 1417 | 1.02 | 1452 | 1.07 | 1486 | 1.11 |
| 1800 | 1253 | 0.85 | 1292 | 0.91 | 1331 | 0.96 | 1368 | 1.01 | 1404 | 1.06 | 1439 | 1.11 | 1473 | 1.16 | 1506 | 1.21 |
| 1900 | 1279 | 0.94 | 1317 | 1.00 | 1355 | 1.05 | 1392 | 1.10 | 1427 | 1.16 | 1461 | 1.21 | 1494 | 1.26 | 1527 | 1.31 |
| 2000 | 1305 | 1.04 | 1343 | 1.10 | 1380 | 1.15 | 1416 | 1.21 | 1450 | 1.26 | 1484 | 1.32 | 1516 | 1.37 | 1549 | 1.42 |

HORIZONTAL

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.10 | | 0.20 | | 0.30 | | 0.40 | | 0.50 | | 0.60 | | 0.70 | | 0.80 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1200 | 687 | 0.23 | 757 | 0.26 | 826 | 0.29 | 893 | 0.32 | 955 | 0.35 | 1008 | 0.39 | 1054 | 0.42 | 1095 | 0.46 |
| 1300 | 730 | 0.27 | 798 | 0.30 | 864 | 0.33 | 926 | 0.37 | 982 | 0.40 | 1030 | 0.44 | 1073 | 0.47 | 1116 | 0.51 |
| 1400 | 775 | 0.31 | 840 | 0.34 | 902 | 0.38 | 959 | 0.42 | 1009 | 0.46 | 1054 | 0.50 | 1096 | 0.53 | 1140 | 0.56 |
| 1500 | 820 | 0.36 | 881 | 0.40 | 939 | 0.44 | 993 | 0.49 | 1039 | 0.53 | 1082 | 0.56 | 1124 | 0.59 | 1168 | 0.62 |
| 1600 | 864 | 0.42 | 921 | 0.46 | 976 | 0.51 | 1027 | 0.56 | 1072 | 0.60 | 1113 | 0.63 | 1155 | 0.66 | 1198 | 0.69 |
| 1700 | 907 | 0.48 | 961 | 0.53 | 1013 | 0.58 | 1061 | 0.63 | 1105 | 0.67 | 1146 | 0.70 | 1187 | 0.73 | 1230 | 0.77 |
| 1800 | 948 | 0.56 | 999 | 0.61 | 1049 | 0.66 | 1096 | 0.71 | 1139 | 0.75 | 1180 | 0.78 | 1221 | 0.82 | 1262 | 0.86 |
| 1900 | 987 | 0.64 | 1037 | 0.69 | 1086 | 0.74 | 1132 | 0.79 | 1174 | 0.83 | 1214 | 0.86 | 1255 | 0.90 | 1295 | 0.95 |
| 2000 | 1028 | 0.73 | 1076 | 0.78 | 1123 | 0.83 | 1168 | 0.87 | 1210 | 0.91 | 1250 | 0.96 | 1289 | 1.00 | 1328 | 1.06 |

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.90 | | 1.00 | | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1200 | 1139 | 0.49 | 1187 | 0.52 | 1234 | 0.54 | 1276 | 0.58 | 1314 | 0.62 | 1350 | 0.66 | 1385 | 0.71 | 1421 | 0.75 |
| 1300 | 1161 | 0.54 | 1208 | 0.57 | 1254 | 0.60 | 1295 | 0.64 | 1332 | 0.69 | 1366 | 0.73 | 1401 | 0.78 | 1436 | 0.83 |
| 1400 | 1185 | 0.59 | 1232 | 0.63 | 1276 | 0.67 | 1315 | 0.71 | 1351 | 0.76 | 1384 | 0.81 | 1419 | 0.86 | 1454 | 0.90 |
| 1500 | 1212 | 0.66 | 1257 | 0.70 | 1299 | 0.74 | 1337 | 0.79 | 1371 | 0.84 | 1404 | 0.89 | 1438 | 0.94 | 1473 | 0.99 |
| 1600 | 1242 | 0.73 | 1284 | 0.77 | 1324 | 0.82 | 1360 | 0.88 | 1394 | 0.93 | 1426 | 0.99 | 1460 | 1.04 | 1495 | 1.08 |
| 1700 | 1272 | 0.81 | 1312 | 0.86 | 1350 | 0.92 | 1385 | 0.98 | 1418 | 1.04 | 1451 | 1.09 | 1485 | 1.14 | 1519 | 1.19 |
| 1800 | 1302 | 0.90 | 1341 | 0.96 | 1377 | 1.02 | 1411 | 1.08 | 1444 | 1.15 | 1477 | 1.20 | 1510 | 1.25 | 1544 | 1.30 |
| 1900 | 1334 | 1.01 | 1371 | 1.07 | 1406 | 1.13 | 1439 | 1.20 | 1471 | 1.26 | 1504 | 1.32 | 1537 | 1.37 | 1571 | 1.41 |
| 2000 | 1365 | 1.12 | 1401 | 1.19 | 1435 | 1.25 | 1468 | 1.32 | 1500 | 1.38 | 1532 | 1.44 | 1565 | 1.49 | 1598 | 1.53 |

BLOWER DATA - BELT DRIVE - ZHA060**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 24 for blower motors and drives and wet coil and options/accessory air resistance data.

DOWNFLOW

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.10 | | 0.20 | | 0.30 | | 0.40 | | 0.50 | | 0.60 | | 0.70 | | 0.80 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1600 | 764 | 0.35 | 822 | 0.39 | 880 | 0.42 | 936 | 0.46 | 991 | 0.51 | 1042 | 0.55 | 1091 | 0.60 | 1136 | 0.64 |
| 1700 | 801 | 0.40 | 857 | 0.44 | 913 | 0.48 | 968 | 0.52 | 1020 | 0.57 | 1070 | 0.61 | 1117 | 0.66 | 1162 | 0.71 |
| 1800 | 838 | 0.46 | 893 | 0.50 | 947 | 0.54 | 1000 | 0.58 | 1051 | 0.63 | 1099 | 0.68 | 1145 | 0.73 | 1188 | 0.78 |
| 1900 | 876 | 0.52 | 929 | 0.56 | 982 | 0.61 | 1033 | 0.65 | 1082 | 0.70 | 1129 | 0.75 | 1173 | 0.80 | 1215 | 0.85 |
| 2000 | 914 | 0.59 | 966 | 0.63 | 1017 | 0.68 | 1067 | 0.72 | 1115 | 0.77 | 1160 | 0.83 | 1203 | 0.88 | 1244 | 0.94 |
| 2100 | 953 | 0.66 | 1004 | 0.71 | 1054 | 0.76 | 1102 | 0.81 | 1148 | 0.86 | 1192 | 0.92 | 1233 | 0.98 | 1273 | 1.04 |
| 2200 | 993 | 0.74 | 1042 | 0.79 | 1090 | 0.85 | 1137 | 0.90 | 1181 | 0.96 | 1224 | 1.02 | 1264 | 1.09 | 1303 | 1.15 |
| 2300 | 1033 | 0.83 | 1081 | 0.89 | 1128 | 0.94 | 1173 | 1.01 | 1216 | 1.07 | 1257 | 1.14 | 1296 | 1.20 | 1334 | 1.27 |
| 2400 | 1074 | 0.93 | 1120 | 0.99 | 1166 | 1.05 | 1209 | 1.12 | 1251 | 1.19 | 1291 | 1.26 | 1329 | 1.33 | 1366 | 1.41 |

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.90 | | 1.00 | | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1600 | 1180 | 0.68 | 1222 | 0.72 | 1263 | 0.76 | 1303 | 0.80 | 1341 | 0.85 | 1378 | 0.90 | 1414 | 0.94 | 1449 | 0.99 |
| 1700 | 1204 | 0.75 | 1245 | 0.79 | 1285 | 0.84 | 1325 | 0.88 | 1362 | 0.93 | 1398 | 0.98 | 1434 | 1.03 | 1468 | 1.08 |
| 1800 | 1229 | 0.83 | 1270 | 0.87 | 1309 | 0.92 | 1347 | 0.97 | 1384 | 1.02 | 1420 | 1.07 | 1454 | 1.12 | 1488 | 1.17 |
| 1900 | 1256 | 0.91 | 1296 | 0.96 | 1334 | 1.01 | 1371 | 1.07 | 1407 | 1.12 | 1442 | 1.17 | 1476 | 1.23 | 1509 | 1.28 |
| 2000 | 1284 | 1.00 | 1322 | 1.06 | 1360 | 1.11 | 1396 | 1.17 | 1431 | 1.23 | 1465 | 1.28 | 1498 | 1.33 | 1531 | 1.38 |
| 2100 | 1312 | 1.10 | 1350 | 1.16 | 1386 | 1.22 | 1422 | 1.28 | 1456 | 1.34 | 1489 | 1.40 | 1521 | 1.45 | 1554 | 1.50 |
| 2200 | 1341 | 1.22 | 1378 | 1.28 | 1414 | 1.34 | 1448 | 1.41 | 1481 | 1.46 | 1513 | 1.52 | 1546 | 1.57 | 1578 | 1.62 |
| 2300 | 1371 | 1.34 | 1407 | 1.41 | 1442 | 1.47 | 1475 | 1.54 | 1507 | 1.59 | 1539 | 1.65 | 1571 | 1.70 | 1602 | 1.75 |
| 2400 | 1402 | 1.48 | 1436 | 1.55 | 1470 | 1.61 | 1503 | 1.67 | 1535 | 1.73 | 1566 | 1.79 | 1597 | 1.84 | 1628 | 1.89 |

HORIZONTAL

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.10 | | 0.20 | | 0.30 | | 0.40 | | 0.50 | | 0.60 | | 0.70 | | 0.80 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1600 | 783 | 0.38 | 844 | 0.41 | 902 | 0.44 | 957 | 0.48 | 1008 | 0.52 | 1056 | 0.56 | 1100 | 0.60 | 1142 | 0.64 |
| 1700 | 825 | 0.44 | 882 | 0.47 | 938 | 0.50 | 989 | 0.54 | 1038 | 0.57 | 1083 | 0.62 | 1126 | 0.66 | 1166 | 0.71 |
| 1800 | 866 | 0.50 | 921 | 0.53 | 973 | 0.56 | 1021 | 0.60 | 1067 | 0.64 | 1111 | 0.68 | 1152 | 0.73 | 1191 | 0.78 |
| 1900 | 907 | 0.56 | 959 | 0.59 | 1008 | 0.63 | 1054 | 0.66 | 1098 | 0.71 | 1139 | 0.75 | 1179 | 0.80 | 1217 | 0.86 |
| 2000 | 948 | 0.63 | 996 | 0.66 | 1042 | 0.70 | 1086 | 0.74 | 1128 | 0.78 | 1168 | 0.83 | 1207 | 0.89 | 1244 | 0.94 |
| 2100 | 987 | 0.70 | 1033 | 0.74 | 1077 | 0.78 | 1119 | 0.82 | 1159 | 0.87 | 1198 | 0.93 | 1235 | 0.99 | 1272 | 1.05 |
| 2200 | 1026 | 0.78 | 1070 | 0.82 | 1112 | 0.87 | 1152 | 0.92 | 1191 | 0.98 | 1228 | 1.03 | 1265 | 1.10 | 1301 | 1.16 |
| 2300 | 1064 | 0.88 | 1106 | 0.92 | 1147 | 0.97 | 1186 | 1.03 | 1223 | 1.09 | 1260 | 1.15 | 1295 | 1.22 | 1331 | 1.28 |
| 2400 | 1102 | 0.98 | 1143 | 1.03 | 1182 | 1.08 | 1220 | 1.15 | 1256 | 1.21 | 1292 | 1.28 | 1327 | 1.35 | 1362 | 1.42 |

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.90 | | 1.00 | | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1600 | 1183 | 0.68 | 1223 | 0.72 | 1263 | 0.76 | 1302 | 0.81 | 1340 | 0.86 | 1377 | 0.91 | 1413 | 0.95 | 1448 | 1.00 |
| 1700 | 1205 | 0.75 | 1245 | 0.79 | 1284 | 0.84 | 1322 | 0.89 | 1360 | 0.94 | 1396 | 0.99 | 1431 | 1.04 | 1465 | 1.09 |
| 1800 | 1230 | 0.83 | 1268 | 0.87 | 1306 | 0.92 | 1344 | 0.98 | 1380 | 1.03 | 1416 | 1.08 | 1450 | 1.13 | 1483 | 1.19 |
| 1900 | 1255 | 0.91 | 1292 | 0.96 | 1330 | 1.02 | 1367 | 1.07 | 1402 | 1.13 | 1437 | 1.18 | 1470 | 1.24 | 1503 | 1.29 |
| 2000 | 1281 | 1.00 | 1318 | 1.06 | 1355 | 1.12 | 1391 | 1.18 | 1425 | 1.23 | 1459 | 1.29 | 1492 | 1.35 | 1524 | 1.40 |
| 2100 | 1308 | 1.11 | 1345 | 1.17 | 1381 | 1.23 | 1416 | 1.29 | 1450 | 1.35 | 1482 | 1.41 | 1514 | 1.46 | 1546 | 1.52 |
| 2200 | 1337 | 1.23 | 1372 | 1.29 | 1408 | 1.35 | 1442 | 1.42 | 1475 | 1.47 | 1507 | 1.53 | 1538 | 1.59 | 1569 | 1.64 |
| 2300 | 1366 | 1.35 | 1401 | 1.42 | 1435 | 1.49 | 1469 | 1.55 | 1501 | 1.61 | 1532 | 1.67 | 1563 | 1.72 | 1594 | 1.77 |
| 2400 | 1396 | 1.49 | 1431 | 1.56 | 1464 | 1.63 | 1496 | 1.69 | 1528 | 1.75 | 1559 | 1.81 | 1589 | 1.86 | 1619 | 1.91 |

BLOWER DATA - BELT DRIVE - ZHBO36**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 24 for blower motors and drives and wet coil and options/accessory air resistance data.

DOWNFLOW

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.10 | | 0.20 | | 0.30 | | 0.40 | | 0.50 | | 0.60 | | 0.70 | | 0.80 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 900 | 562 | 0.11 | 621 | 0.13 | 685 | 0.16 | 752 | 0.18 | 818 | 0.21 | 883 | 0.24 | 944 | 0.27 | 1001 | 0.30 |
| 1000 | 584 | 0.13 | 644 | 0.16 | 707 | 0.18 | 773 | 0.21 | 838 | 0.24 | 901 | 0.27 | 960 | 0.3 | 1015 | 0.33 |
| 1100 | 609 | 0.16 | 669 | 0.18 | 732 | 0.21 | 796 | 0.24 | 860 | 0.27 | 921 | 0.30 | 978 | 0.34 | 1031 | 0.37 |
| 1200 | 635 | 0.19 | 696 | 0.21 | 758 | 0.24 | 821 | 0.27 | 883 | 0.31 | 942 | 0.34 | 997 | 0.38 | 1049 | 0.42 |
| 1300 | 664 | 0.22 | 725 | 0.25 | 786 | 0.28 | 848 | 0.31 | 908 | 0.35 | 965 | 0.39 | 1018 | 0.43 | 1068 | 0.47 |
| 1400 | 696 | 0.26 | 756 | 0.29 | 816 | 0.32 | 876 | 0.36 | 935 | 0.40 | 989 | 0.44 | 1041 | 0.48 | 1089 | 0.52 |
| 1500 | 729 | 0.30 | 788 | 0.33 | 848 | 0.37 | 906 | 0.41 | 962 | 0.45 | 1015 | 0.50 | 1065 | 0.54 | 1112 | 0.58 |

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.90 | | 1.00 | | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 900 | 1053 | 0.32 | 1103 | 0.35 | 1149 | 0.38 | 1193 | 0.41 | 1234 | 0.43 | 1274 | 0.47 | 1312 | 0.50 | 1351 | 0.53 |
| 1000 | 1066 | 0.36 | 1114 | 0.39 | 1160 | 0.42 | 1204 | 0.45 | 1245 | 0.48 | 1284 | 0.51 | 1322 | 0.54 | 1361 | 0.58 |
| 1100 | 1081 | 0.40 | 1128 | 0.43 | 1173 | 0.46 | 1216 | 0.49 | 1257 | 0.53 | 1296 | 0.56 | 1334 | 0.60 | 1372 | 0.63 |
| 1200 | 1097 | 0.45 | 1144 | 0.48 | 1188 | 0.51 | 1231 | 0.54 | 1271 | 0.58 | 1310 | 0.62 | 1347 | 0.66 | 1385 | 0.69 |
| 1300 | 1115 | 0.50 | 1161 | 0.53 | 1204 | 0.56 | 1246 | 0.60 | 1286 | 0.64 | 1325 | 0.68 | 1362 | 0.72 | 1399 | 0.76 |
| 1400 | 1135 | 0.56 | 1179 | 0.59 | 1222 | 0.62 | 1264 | 0.66 | 1303 | 0.70 | 1341 | 0.75 | 1378 | 0.79 | 1415 | 0.83 |
| 1500 | 1157 | 0.62 | 1200 | 0.65 | 1242 | 0.69 | 1282 | 0.73 | 1321 | 0.77 | 1359 | 0.82 | 1396 | 0.86 | 1431 | 0.91 |

HORIZONTAL

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.10 | | 0.20 | | 0.30 | | 0.40 | | 0.50 | | 0.60 | | 0.70 | | 0.80 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 900 | 560 | 0.16 | 624 | 0.18 | 692 | 0.20 | 761 | 0.21 | 830 | 0.23 | 896 | 0.25 | 956 | 0.27 | 1012 | 0.29 |
| 1000 | 583 | 0.18 | 647 | 0.20 | 715 | 0.22 | 783 | 0.24 | 850 | 0.25 | 914 | 0.27 | 972 | 0.30 | 1025 | 0.33 |
| 1100 | 609 | 0.20 | 673 | 0.22 | 740 | 0.24 | 808 | 0.26 | 873 | 0.28 | 934 | 0.31 | 990 | 0.34 | 1041 | 0.37 |
| 1200 | 637 | 0.23 | 702 | 0.25 | 769 | 0.27 | 835 | 0.29 | 898 | 0.32 | 956 | 0.35 | 1009 | 0.38 | 1058 | 0.41 |
| 1300 | 669 | 0.26 | 734 | 0.28 | 800 | 0.30 | 863 | 0.33 | 924 | 0.36 | 979 | 0.39 | 1030 | 0.43 | 1077 | 0.46 |
| 1400 | 704 | 0.29 | 768 | 0.32 | 832 | 0.35 | 894 | 0.37 | 951 | 0.41 | 1004 | 0.44 | 1052 | 0.48 | 1097 | 0.52 |
| 1500 | 742 | 0.33 | 805 | 0.36 | 867 | 0.39 | 925 | 0.42 | 980 | 0.46 | 1030 | 0.50 | 1076 | 0.54 | 1119 | 0.58 |

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.90 | | 1.00 | | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 900 | 1064 | 0.32 | 1114 | 0.35 | 1162 | 0.38 | 1208 | 0.41 | 1251 | 0.45 | 1293 | 0.49 | 1333 | 0.52 | 1373 | 0.56 |
| 1000 | 1076 | 0.36 | 1124 | 0.39 | 1170 | 0.42 | 1216 | 0.46 | 1259 | 0.49 | 1300 | 0.53 | 1340 | 0.57 | 1379 | 0.61 |
| 1100 | 1089 | 0.40 | 1136 | 0.43 | 1181 | 0.46 | 1225 | 0.50 | 1268 | 0.54 | 1308 | 0.58 | 1347 | 0.62 | 1386 | 0.66 |
| 1200 | 1104 | 0.45 | 1150 | 0.48 | 1194 | 0.51 | 1237 | 0.55 | 1279 | 0.59 | 1319 | 0.63 | 1357 | 0.67 | 1394 | 0.71 |
| 1300 | 1121 | 0.5 | 1165 | 0.53 | 1209 | 0.57 | 1251 | 0.61 | 1292 | 0.65 | 1331 | 0.69 | 1368 | 0.73 | 1405 | 0.78 |
| 1400 | 1140 | 0.56 | 1183 | 0.59 | 1225 | 0.63 | 1266 | 0.67 | 1306 | 0.71 | 1345 | 0.76 | 1382 | 0.8 | 1417 | 0.85 |
| 1500 | 1161 | 0.62 | 1202 | 0.65 | 1243 | 0.69 | 1284 | 0.73 | 1323 | 0.78 | 1360 | 0.83 | 1396 | 0.87 | 1432 | 0.92 |

BLOWER DATA - BELT DRIVE - ZHB048**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 24 for blower motors and drives and wet coil and options/accessory air resistance data.

DOWNFLOW

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.10 | | 0.20 | | 0.30 | | 0.40 | | 0.50 | | 0.60 | | 0.70 | | 0.80 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1200 | 620 | 0.23 | 681 | 0.29 | 744 | 0.34 | 809 | 0.39 | 875 | 0.43 | 941 | 0.47 | 1004 | 0.51 | 1060 | 0.54 |
| 1300 | 652 | 0.28 | 713 | 0.34 | 775 | 0.39 | 839 | 0.44 | 903 | 0.48 | 967 | 0.51 | 1025 | 0.55 | 1078 | 0.59 |
| 1400 | 687 | 0.33 | 747 | 0.39 | 809 | 0.44 | 871 | 0.49 | 934 | 0.53 | 994 | 0.57 | 1048 | 0.61 | 1098 | 0.64 |
| 1500 | 724 | 0.40 | 784 | 0.45 | 844 | 0.50 | 905 | 0.54 | 965 | 0.59 | 1021 | 0.62 | 1071 | 0.66 | 1118 | 0.70 |
| 1600 | 764 | 0.46 | 823 | 0.51 | 882 | 0.56 | 940 | 0.60 | 997 | 0.65 | 1048 | 0.69 | 1094 | 0.72 | 1140 | 0.75 |
| 1700 | 806 | 0.53 | 863 | 0.58 | 919 | 0.62 | 975 | 0.67 | 1028 | 0.71 | 1075 | 0.75 | 1119 | 0.78 | 1164 | 0.81 |
| 1800 | 849 | 0.60 | 903 | 0.65 | 957 | 0.69 | 1010 | 0.74 | 1058 | 0.78 | 1102 | 0.82 | 1145 | 0.85 | 1189 | 0.88 |
| 1900 | 892 | 0.68 | 944 | 0.72 | 995 | 0.77 | 1045 | 0.82 | 1089 | 0.86 | 1131 | 0.89 | 1174 | 0.92 | 1217 | 0.95 |
| 2000 | 935 | 0.76 | 984 | 0.81 | 1033 | 0.86 | 1079 | 0.91 | 1122 | 0.95 | 1163 | 0.97 | 1204 | 1.00 | 1247 | 1.03 |

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.90 | | 1.00 | | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1200 | 1111 | 0.58 | 1156 | 0.60 | 1199 | 0.62 | 1241 | 0.63 | 1284 | 0.65 | 1326 | 0.67 | 1367 | 0.71 | 1408 | 0.74 |
| 1300 | 1127 | 0.62 | 1172 | 0.65 | 1214 | 0.66 | 1256 | 0.68 | 1299 | 0.70 | 1341 | 0.73 | 1381 | 0.77 | 1421 | 0.81 |
| 1400 | 1145 | 0.68 | 1189 | 0.70 | 1231 | 0.72 | 1274 | 0.74 | 1316 | 0.76 | 1357 | 0.79 | 1397 | 0.83 | 1436 | 0.88 |
| 1500 | 1164 | 0.73 | 1208 | 0.75 | 1251 | 0.78 | 1293 | 0.80 | 1334 | 0.83 | 1374 | 0.86 | 1413 | 0.91 | 1451 | 0.95 |
| 1600 | 1185 | 0.79 | 1229 | 0.81 | 1271 | 0.84 | 1313 | 0.86 | 1354 | 0.90 | 1393 | 0.94 | 1431 | 0.98 | 1468 | 1.03 |
| 1700 | 1208 | 0.84 | 1252 | 0.87 | 1294 | 0.90 | 1335 | 0.94 | 1375 | 0.98 | 1413 | 1.02 | 1449 | 1.07 | 1485 | 1.12 |
| 1800 | 1233 | 0.91 | 1276 | 0.94 | 1318 | 0.98 | 1358 | 1.02 | 1397 | 1.06 | 1434 | 1.11 | 1469 | 1.16 | 1504 | 1.21 |
| 1900 | 1261 | 0.98 | 1303 | 1.02 | 1343 | 1.06 | 1382 | 1.11 | 1420 | 1.16 | 1455 | 1.21 | 1490 | 1.26 | 1525 | 1.31 |
| 2000 | 1289 | 1.07 | 1330 | 1.11 | 1370 | 1.16 | 1407 | 1.21 | 1444 | 1.27 | 1478 | 1.32 | 1513 | 1.37 | 1547 | 1.42 |

HORIZONTAL

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.10 | | 0.20 | | 0.30 | | 0.40 | | 0.50 | | 0.60 | | 0.70 | | 0.80 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1200 | 614 | 0.21 | 681 | 0.25 | 752 | 0.30 | 821 | 0.34 | 888 | 0.39 | 950 | 0.43 | 1006 | 0.46 | 1057 | 0.49 |
| 1300 | 644 | 0.24 | 712 | 0.29 | 782 | 0.34 | 850 | 0.39 | 915 | 0.43 | 974 | 0.47 | 1027 | 0.51 | 1076 | 0.53 |
| 1400 | 677 | 0.29 | 746 | 0.34 | 814 | 0.39 | 880 | 0.44 | 942 | 0.48 | 998 | 0.52 | 1049 | 0.55 | 1097 | 0.58 |
| 1500 | 714 | 0.34 | 781 | 0.40 | 848 | 0.45 | 911 | 0.49 | 970 | 0.53 | 1023 | 0.57 | 1072 | 0.60 | 1119 | 0.63 |
| 1600 | 752 | 0.40 | 818 | 0.45 | 882 | 0.50 | 943 | 0.55 | 999 | 0.59 | 1050 | 0.62 | 1097 | 0.66 | 1142 | 0.69 |
| 1700 | 792 | 0.46 | 855 | 0.52 | 917 | 0.56 | 975 | 0.61 | 1028 | 0.64 | 1077 | 0.68 | 1123 | 0.72 | 1166 | 0.75 |
| 1800 | 832 | 0.53 | 894 | 0.58 | 952 | 0.63 | 1007 | 0.67 | 1058 | 0.70 | 1105 | 0.74 | 1149 | 0.78 | 1192 | 0.82 |
| 1900 | 873 | 0.60 | 932 | 0.65 | 988 | 0.69 | 1040 | 0.73 | 1088 | 0.77 | 1134 | 0.81 | 1177 | 0.85 | 1219 | 0.90 |
| 2000 | 914 | 0.67 | 970 | 0.72 | 1023 | 0.76 | 1073 | 0.80 | 1120 | 0.85 | 1163 | 0.89 | 1205 | 0.94 | 1246 | 0.99 |

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.90 | | 1.00 | | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1200 | 1105 | 0.51 | 1152 | 0.53 | 1197 | 0.55 | 1240 | 0.58 | 1280 | 0.61 | 1320 | 0.64 | 1358 | 0.68 | 1395 | 0.72 |
| 1300 | 1123 | 0.55 | 1169 | 0.57 | 1213 | 0.60 | 1255 | 0.63 | 1295 | 0.67 | 1334 | 0.70 | 1372 | 0.74 | 1409 | 0.79 |
| 1400 | 1142 | 0.60 | 1187 | 0.63 | 1230 | 0.66 | 1272 | 0.69 | 1312 | 0.73 | 1350 | 0.77 | 1388 | 0.82 | 1424 | 0.86 |
| 1500 | 1163 | 0.66 | 1207 | 0.69 | 1249 | 0.72 | 1290 | 0.76 | 1330 | 0.80 | 1368 | 0.85 | 1405 | 0.90 | 1441 | 0.94 |
| 1600 | 1185 | 0.72 | 1228 | 0.75 | 1270 | 0.79 | 1310 | 0.83 | 1349 | 0.88 | 1387 | 0.93 | 1423 | 0.98 | 1459 | 1.03 |
| 1700 | 1209 | 0.78 | 1251 | 0.82 | 1292 | 0.87 | 1331 | 0.92 | 1370 | 0.97 | 1407 | 1.02 | 1443 | 1.07 | 1478 | 1.12 |
| 1800 | 1234 | 0.86 | 1275 | 0.91 | 1315 | 0.96 | 1354 | 1.01 | 1391 | 1.06 | 1428 | 1.11 | 1463 | 1.17 | 1498 | 1.22 |
| 1900 | 1260 | 0.95 | 1300 | 1.00 | 1340 | 1.05 | 1377 | 1.11 | 1414 | 1.16 | 1450 | 1.22 | 1485 | 1.27 | 1519 | 1.32 |
| 2000 | 1287 | 1.04 | 1326 | 1.10 | 1365 | 1.16 | 1402 | 1.21 | 1437 | 1.27 | 1472 | 1.33 | 1507 | 1.38 | 1541 | 1.43 |

BLOWER DATA - BELT DRIVE - ZHB060**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 24 for blower motors and drives and wet coil and options/accessory air resistance data.

DOWNFLOW

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.10 | | 0.20 | | 0.30 | | 0.40 | | 0.50 | | 0.60 | | 0.70 | | 0.80 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1600 | 522 | 0.27 | 552 | 0.32 | 585 | 0.37 | 619 | 0.43 | 656 | 0.48 | 693 | 0.53 | 732 | 0.59 | 771 | 0.64 |
| 1700 | 539 | 0.32 | 570 | 0.37 | 603 | 0.43 | 638 | 0.48 | 674 | 0.53 | 711 | 0.59 | 749 | 0.64 | 787 | 0.69 |
| 1800 | 558 | 0.38 | 589 | 0.43 | 623 | 0.48 | 658 | 0.54 | 694 | 0.59 | 730 | 0.64 | 767 | 0.70 | 803 | 0.75 |
| 1900 | 578 | 0.44 | 610 | 0.49 | 643 | 0.54 | 678 | 0.60 | 714 | 0.65 | 749 | 0.70 | 785 | 0.76 | 819 | 0.82 |
| 2000 | 600 | 0.50 | 632 | 0.56 | 665 | 0.61 | 699 | 0.66 | 734 | 0.71 | 769 | 0.77 | 803 | 0.83 | 837 | 0.90 |
| 2100 | 623 | 0.57 | 655 | 0.62 | 688 | 0.68 | 721 | 0.73 | 755 | 0.79 | 789 | 0.84 | 822 | 0.91 | 854 | 0.98 |
| 2200 | 647 | 0.65 | 678 | 0.70 | 711 | 0.75 | 743 | 0.81 | 776 | 0.86 | 809 | 0.93 | 841 | 1.00 | 872 | 1.06 |
| 2300 | 671 | 0.73 | 702 | 0.78 | 734 | 0.83 | 766 | 0.89 | 798 | 0.95 | 829 | 1.02 | 860 | 1.09 | 890 | 1.16 |
| 2400 | 696 | 0.81 | 726 | 0.87 | 757 | 0.92 | 788 | 0.98 | 819 | 1.04 | 850 | 1.11 | 880 | 1.19 | 909 | 1.26 |

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.90 | | 1.00 | | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1600 | 809 | 0.69 | 844 | 0.74 | 877 | 0.80 | 908 | 0.85 | 936 | 0.91 | 963 | 0.97 | 989 | 1.02 | 1014 | 1.08 |
| 1700 | 823 | 0.75 | 857 | 0.80 | 889 | 0.86 | 919 | 0.92 | 947 | 0.97 | 973 | 1.03 | 999 | 1.09 | 1024 | 1.14 |
| 1800 | 838 | 0.81 | 870 | 0.87 | 901 | 0.92 | 931 | 0.98 | 958 | 1.04 | 984 | 1.10 | 1009 | 1.16 | 1034 | 1.22 |
| 1900 | 853 | 0.88 | 885 | 0.94 | 915 | 0.99 | 944 | 1.05 | 971 | 1.11 | 996 | 1.17 | 1021 | 1.23 | 1045 | 1.29 |
| 2000 | 869 | 0.96 | 899 | 1.01 | 929 | 1.07 | 957 | 1.13 | 984 | 1.19 | 1009 | 1.25 | 1033 | 1.31 | 1058 | 1.38 |
| 2100 | 885 | 1.04 | 915 | 1.10 | 944 | 1.15 | 971 | 1.22 | 997 | 1.28 | 1022 | 1.34 | 1046 | 1.40 | 1070 | 1.46 |
| 2200 | 902 | 1.13 | 931 | 1.19 | 959 | 1.24 | 986 | 1.31 | 1012 | 1.37 | 1036 | 1.43 | 1060 | 1.50 | 1084 | 1.56 |
| 2300 | 920 | 1.23 | 948 | 1.29 | 975 | 1.35 | 1001 | 1.41 | 1027 | 1.47 | 1051 | 1.53 | 1075 | 1.60 | 1098 | 1.66 |
| 2400 | 938 | 1.33 | 965 | 1.39 | 992 | 1.45 | 1017 | 1.52 | 1042 | 1.58 | 1066 | 1.64 | 1090 | 1.70 | 1113 | 1.77 |

HORIZONTAL

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.10 | | 0.20 | | 0.30 | | 0.40 | | 0.50 | | 0.60 | | 0.70 | | 0.80 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1600 | 525 | 0.30 | 561 | 0.34 | 597 | 0.39 | 635 | 0.43 | 673 | 0.47 | 711 | 0.51 | 748 | 0.56 | 784 | 0.61 |
| 1700 | 543 | 0.34 | 578 | 0.39 | 615 | 0.43 | 653 | 0.48 | 691 | 0.52 | 728 | 0.57 | 765 | 0.62 | 800 | 0.67 |
| 1800 | 561 | 0.39 | 597 | 0.44 | 635 | 0.49 | 672 | 0.53 | 710 | 0.58 | 746 | 0.63 | 782 | 0.68 | 816 | 0.73 |
| 1900 | 581 | 0.44 | 618 | 0.49 | 655 | 0.54 | 692 | 0.59 | 729 | 0.64 | 765 | 0.69 | 800 | 0.75 | 833 | 0.80 |
| 2000 | 602 | 0.50 | 639 | 0.55 | 676 | 0.61 | 713 | 0.66 | 749 | 0.71 | 784 | 0.76 | 818 | 0.82 | 850 | 0.88 |
| 2100 | 625 | 0.57 | 661 | 0.62 | 698 | 0.67 | 735 | 0.73 | 770 | 0.78 | 804 | 0.84 | 837 | 0.90 | 868 | 0.96 |
| 2200 | 648 | 0.64 | 685 | 0.69 | 721 | 0.75 | 757 | 0.80 | 791 | 0.86 | 824 | 0.92 | 856 | 0.98 | 886 | 1.05 |
| 2300 | 673 | 0.71 | 709 | 0.77 | 745 | 0.83 | 780 | 0.88 | 813 | 0.94 | 845 | 1.01 | 876 | 1.08 | 905 | 1.15 |
| 2400 | 699 | 0.79 | 734 | 0.85 | 769 | 0.91 | 803 | 0.97 | 835 | 1.04 | 866 | 1.11 | 896 | 1.18 | 924 | 1.25 |

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.90 | | 1.00 | | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1600 | 819 | 0.66 | 851 | 0.72 | 883 | 0.77 | 913 | 0.83 | 943 | 0.89 | 971 | 0.95 | 998 | 1.01 | 1024 | 1.07 |
| 1700 | 833 | 0.72 | 865 | 0.78 | 896 | 0.84 | 926 | 0.90 | 954 | 0.96 | 982 | 1.02 | 1009 | 1.08 | 1034 | 1.14 |
| 1800 | 848 | 0.79 | 880 | 0.85 | 910 | 0.92 | 939 | 0.98 | 967 | 1.04 | 994 | 1.10 | 1020 | 1.16 | 1045 | 1.23 |
| 1900 | 864 | 0.87 | 895 | 0.93 | 924 | 0.99 | 953 | 1.06 | 980 | 1.12 | 1007 | 1.18 | 1032 | 1.25 | 1056 | 1.31 |
| 2000 | 881 | 0.95 | 911 | 1.01 | 940 | 1.08 | 967 | 1.14 | 994 | 1.21 | 1020 | 1.27 | 1044 | 1.34 | 1068 | 1.40 |
| 2100 | 898 | 1.03 | 927 | 1.10 | 955 | 1.17 | 982 | 1.23 | 1008 | 1.30 | 1033 | 1.37 | 1057 | 1.43 | 1080 | 1.50 |
| 2200 | 916 | 1.12 | 944 | 1.19 | 971 | 1.26 | 998 | 1.33 | 1023 | 1.40 | 1047 | 1.47 | 1071 | 1.54 | 1093 | 1.60 |
| 2300 | 934 | 1.22 | 961 | 1.29 | 988 | 1.36 | 1014 | 1.43 | 1038 | 1.50 | 1062 | 1.58 | 1085 | 1.65 | 1107 | 1.71 |
| 2400 | 952 | 1.32 | 979 | 1.40 | 1005 | 1.47 | 1030 | 1.54 | 1054 | 1.62 | 1077 | 1.69 | 1099 | 1.76 | 1121 | 1.83 |

BLOWER DATA - BELT DRIVE - ZHB072

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

DOWNFLOW

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.10 | | 0.20 | | 0.30 | | 0.40 | | 0.50 | | 0.60 | | 0.70 | | 0.80 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1800 | 558 | 0.38 | 589 | 0.43 | 623 | 0.48 | 658 | 0.54 | 694 | 0.59 | 730 | 0.64 | 767 | 0.70 | 803 | 0.75 |
| 1900 | 578 | 0.44 | 610 | 0.49 | 643 | 0.54 | 678 | 0.60 | 714 | 0.65 | 749 | 0.70 | 785 | 0.76 | 819 | 0.82 |
| 2000 | 600 | 0.50 | 632 | 0.56 | 665 | 0.61 | 699 | 0.66 | 734 | 0.71 | 769 | 0.77 | 803 | 0.83 | 837 | 0.90 |
| 2100 | 623 | 0.57 | 655 | 0.62 | 688 | 0.68 | 721 | 0.73 | 755 | 0.79 | 789 | 0.84 | 822 | 0.91 | 854 | 0.98 |
| 2200 | 647 | 0.65 | 678 | 0.70 | 711 | 0.75 | 743 | 0.81 | 776 | 0.86 | 809 | 0.93 | 841 | 1.00 | 872 | 1.06 |
| 2300 | 671 | 0.73 | 702 | 0.78 | 734 | 0.83 | 766 | 0.89 | 798 | 0.95 | 829 | 1.02 | 860 | 1.09 | 890 | 1.16 |
| 2400 | 696 | 0.81 | 726 | 0.87 | 757 | 0.92 | 788 | 0.98 | 819 | 1.04 | 850 | 1.11 | 880 | 1.19 | 909 | 1.26 |
| 2500 | 720 | 0.90 | 750 | 0.95 | 780 | 1.01 | 811 | 1.07 | 841 | 1.14 | 871 | 1.22 | 900 | 1.30 | 929 | 1.37 |
| 2600 | 745 | 0.99 | 774 | 1.05 | 804 | 1.11 | 834 | 1.17 | 864 | 1.25 | 893 | 1.33 | 921 | 1.41 | 949 | 1.49 |
| 2700 | 770 | 1.09 | 799 | 1.15 | 828 | 1.21 | 858 | 1.28 | 887 | 1.36 | 916 | 1.44 | 943 | 1.53 | 969 | 1.61 |
| 2800 | 795 | 1.19 | 824 | 1.25 | 853 | 1.33 | 882 | 1.40 | 911 | 1.48 | 939 | 1.56 | 965 | 1.65 | 990 | 1.73 |
| 2900 | 820 | 1.30 | 849 | 1.37 | 878 | 1.45 | 907 | 1.53 | 935 | 1.61 | 962 | 1.70 | 988 | 1.78 | 1012 | 1.86 |

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.90 | | 1.00 | | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1800 | 838 | 0.81 | 870 | 0.87 | 901 | 0.92 | 931 | 0.98 | 958 | 1.04 | 984 | 1.10 | 1009 | 1.16 | 1034 | 1.22 |
| 1900 | 853 | 0.88 | 885 | 0.94 | 915 | 0.99 | 944 | 1.05 | 971 | 1.11 | 996 | 1.17 | 1021 | 1.23 | 1045 | 1.29 |
| 2000 | 869 | 0.96 | 899 | 1.01 | 929 | 1.07 | 957 | 1.13 | 984 | 1.19 | 1009 | 1.25 | 1033 | 1.31 | 1058 | 1.38 |
| 2100 | 885 | 1.04 | 915 | 1.10 | 944 | 1.15 | 971 | 1.22 | 997 | 1.28 | 1022 | 1.34 | 1046 | 1.40 | 1070 | 1.46 |
| 2200 | 902 | 1.13 | 931 | 1.19 | 959 | 1.24 | 986 | 1.31 | 1012 | 1.37 | 1036 | 1.43 | 1060 | 1.50 | 1084 | 1.56 |
| 2300 | 920 | 1.23 | 948 | 1.29 | 975 | 1.35 | 1001 | 1.41 | 1027 | 1.47 | 1051 | 1.53 | 1075 | 1.60 | 1098 | 1.66 |
| 2400 | 938 | 1.33 | 965 | 1.39 | 992 | 1.45 | 1017 | 1.52 | 1042 | 1.58 | 1066 | 1.64 | 1090 | 1.70 | 1113 | 1.77 |
| 2500 | 956 | 1.44 | 983 | 1.51 | 1009 | 1.57 | 1034 | 1.63 | 1059 | 1.69 | 1082 | 1.75 | 1105 | 1.82 | 1128 | 1.88 |
| 2600 | 975 | 1.56 | 1001 | 1.63 | 1026 | 1.69 | 1051 | 1.75 | 1075 | 1.81 | 1098 | 1.87 | 1121 | 1.93 | 1143 | 2.00 |
| 2700 | 995 | 1.68 | 1020 | 1.75 | 1044 | 1.81 | 1069 | 1.87 | 1092 | 1.93 | 1114 | 1.99 | 1136 | 2.06 | 1158 | 2.13 |
| 2800 | 1015 | 1.81 | 1039 | 1.87 | 1063 | 1.94 | 1086 | 2.00 | 1109 | 2.06 | 1131 | 2.12 | 1152 | 2.19 | 1174 | 2.26 |
| 2900 | 1035 | 1.94 | 1058 | 2.00 | 1081 | 2.07 | 1104 | 2.13 | 1126 | 2.19 | 1147 | 2.26 | 1168 | 2.33 | 1189 | 2.40 |

HORIZONTAL

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.10 | | 0.20 | | 0.30 | | 0.40 | | 0.50 | | 0.60 | | 0.70 | | 0.80 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1800 | 561 | 0.39 | 597 | 0.44 | 635 | 0.49 | 672 | 0.53 | 710 | 0.58 | 746 | 0.63 | 782 | 0.68 | 816 | 0.73 |
| 1900 | 581 | 0.44 | 618 | 0.49 | 655 | 0.54 | 692 | 0.59 | 729 | 0.64 | 765 | 0.69 | 800 | 0.75 | 833 | 0.80 |
| 2000 | 602 | 0.50 | 639 | 0.55 | 676 | 0.61 | 713 | 0.66 | 749 | 0.71 | 784 | 0.76 | 818 | 0.82 | 850 | 0.88 |
| 2100 | 625 | 0.57 | 661 | 0.62 | 698 | 0.67 | 735 | 0.73 | 770 | 0.78 | 804 | 0.84 | 837 | 0.90 | 868 | 0.96 |
| 2200 | 648 | 0.64 | 685 | 0.69 | 721 | 0.75 | 757 | 0.80 | 791 | 0.86 | 824 | 0.92 | 856 | 0.98 | 886 | 1.05 |
| 2300 | 673 | 0.71 | 709 | 0.77 | 745 | 0.83 | 780 | 0.88 | 813 | 0.94 | 845 | 1.01 | 876 | 1.08 | 905 | 1.15 |
| 2400 | 699 | 0.79 | 734 | 0.85 | 769 | 0.91 | 803 | 0.97 | 835 | 1.04 | 866 | 1.11 | 896 | 1.18 | 924 | 1.25 |
| 2500 | 725 | 0.88 | 759 | 0.94 | 793 | 1.00 | 826 | 1.07 | 857 | 1.14 | 887 | 1.21 | 916 | 1.28 | 944 | 1.36 |
| 2600 | 752 | 0.97 | 785 | 1.04 | 818 | 1.10 | 850 | 1.17 | 880 | 1.25 | 909 | 1.32 | 937 | 1.40 | 964 | 1.48 |
| 2700 | 779 | 1.07 | 811 | 1.14 | 843 | 1.21 | 873 | 1.29 | 902 | 1.37 | 931 | 1.44 | 958 | 1.52 | 984 | 1.60 |
| 2800 | 805 | 1.18 | 837 | 1.26 | 868 | 1.33 | 897 | 1.41 | 925 | 1.49 | 952 | 1.57 | 979 | 1.66 | 1004 | 1.74 |
| 2900 | 832 | 1.30 | 863 | 1.38 | 892 | 1.46 | 921 | 1.54 | 948 | 1.63 | 974 | 1.71 | 1000 | 1.80 | 1024 | 1.88 |

| Air Volume cfm | External Static - in. w.g. | | | | | | | | | | | | | | | |
|----------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0.90 | | 1.00 | | 1.10 | | 1.20 | | 1.30 | | 1.40 | | 1.50 | | 1.60 | |
| | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| 1800 | 848 | 0.79 | 880 | 0.85 | 910 | 0.92 | 939 | 0.98 | 967 | 1.04 | 994 | 1.10 | 1020 | 1.16 | 1045 | 1.23 |
| 1900 | 864 | 0.87 | 895 | 0.93 | 924 | 0.99 | 953 | 1.06 | 980 | 1.12 | 1007 | 1.18 | 1032 | 1.25 | 1056 | 1.31 |
| 2000 | 881 | 0.95 | 911 | 1.01 | 940 | 1.08 | 967 | 1.14 | 994 | 1.21 | 1020 | 1.27 | 1044 | 1.34 | 1068 | 1.40 |
| 2100 | 898 | 1.03 | 927 | 1.10 | 955 | 1.17 | 982 | 1.23 | 1008 | 1.30 | 1033 | 1.37 | 1057 | 1.43 | 1080 | 1.50 |
| 2200 | 916 | 1.12 | 944 | 1.19 | 971 | 1.26 | 998 | 1.33 | 1023 | 1.40 | 1047 | 1.47 | 1071 | 1.54 | 1093 | 1.60 |
| 2300 | 934 | 1.22 | 961 | 1.29 | 988 | 1.36 | 1014 | 1.43 | 1038 | 1.50 | 1062 | 1.58 | 1085 | 1.65 | 1107 | 1.71 |
| 2400 | 952 | 1.32 | 979 | 1.40 | 1005 | 1.47 | 1030 | 1.54 | 1054 | 1.62 | 1077 | 1.69 | 1099 | 1.76 | 1121 | 1.83 |
| 2500 | 971 | 1.43 | 997 | 1.51 | 1022 | 1.59 | 1046 | 1.66 | 1069 | 1.74 | 1092 | 1.81 | 1114 | 1.88 | 1135 | 1.95 |
| 2600 | 990 | 1.55 | 1015 | 1.63 | 1039 | 1.71 | 1063 | 1.79 | 1086 | 1.86 | 1108 | 1.94 | 1129 | 2.01 | 1150 | 2.07 |
| 2700 | 1009 | 1.68 | 1034 | 1.76 | 1057 | 1.84 | 1080 | 1.92 | 1102 | 1.99 | 1124 | 2.07 | 1145 | 2.14 | 1166 | 2.21 |
| 2800 | 1028 | 1.82 | 1052 | 1.9 | 1075 | 1.98 | 1097 | 2.06 | 1119 | 2.13 | 1140 | 2.21 | 1161 | 2.28 | 1182 | 2.34 |
| 2900 | 1048 | 1.96 | 1071 | 2.04 | 1093 | 2.12 | 1115 | 2.20 | 1136 | 2.28 | 1157 | 2.35 | 1177 | 2.42 | 1198 | 2.48 |

BLOWER DATA

DRIVE KIT SPECIFICATIONS - ZHA036-060, ZHB036-048

| Model No. | Motor HP | | No. of Speeds | Drive Kits and RPM Range | | | | | |
|-------------|-------------------|---------|---------------|--------------------------|------------|------------|------------|-------------------|-------------------|
| | Nominal | Maximum | | ZA01 | ZA02 | ZA03 | ZA04 | ³ ZA05 | ³ ZA06 |
| ZHA/ZHB 036 | ¹ 0.75 | 0.86 | 1 | 678 - 1035 | --- | --- | 964 - 1471 | --- | --- |
| | ² 1 | 1.15 | 1 | 678 - 1035 | --- | --- | 964 - 1471 | --- | --- |
| | ¹ 1.5 | 1.7 | 1 | 678 - 1035 | --- | --- | 964 - 1471 | --- | --- |
| ZHA/ZHB 048 | ¹ 0.75 | 0.86 | 1 | --- | 803 - 1226 | --- | --- | --- | --- |
| | ² 1 | 1.15 | 1 | --- | 803 - 1226 | --- | --- | --- | --- |
| | ¹ 1.5 | 1.7 | 1 | --- | 803 - 1226 | --- | --- | 1098 - 1490 | --- |
| ZHA060 | 1 | 1.15 | 1 | --- | --- | 906 - 1383 | --- | --- | --- |
| | 1.5 | 1.7 | 1 | --- | --- | 906 - 1383 | --- | --- | 1262 - 1634 |

DRIVE KIT SPECIFICATIONS - ZHB060-072

| Model No. | Motor HP | | No. of Speeds | Drive Kits and RPM Range | | | |
|-----------|-------------------|---------|---------------|--------------------------|-----------|--------------------|--------------------|
| | Nominal | Maximum | | ZAA01 | ZAA02 | ³ ZAA03 | ⁴ ZAA04 |
| ZHB060 | ¹ 0.75 | 0.86 | 1 | 522 - 784 | 632 - 875 | --- | --- |
| | ² 1 | 1.15 | 1 | 522 - 784 | 632 - 875 | --- | --- |
| | 1.5 | 1.7 | 1 | 522 - 784 | 632 - 875 | 798 - 1105 | --- |
| ZHB072 | 1 | 1.15 | 1 | --- | 632 - 875 | --- | --- |
| | 1.5 | 1.7 | 1 | --- | 632 - 875 | 798 - 1105 | --- |
| | 2 | 2.3 | 1 | --- | 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.

¹ 0.75 and 1.5 hp motors are only available for ZHB036-060 208/230V-1ph applications.

² 1 hp blower motor is not available for ZHB060 208/230V-1ph applications.

³ 1.5 hp blower motor is the minimum required with the ZA05, ZA06, and ZAA03 drive kits.

⁴ 2 hp blower motor is required with the ZAA04 drive kit.

POWER EXHAUST FAN PERFORMANCE

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

BLOWER DATA

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

| Air Volume cfm | Wet Indoor Coil | | | | Electric Heat | Economizer | |
|-------------------|-------------------|-------------------|-------------------|--------|------------------|------------|------------|
| | ZHA036, ZHA048 | ZHA060, ZHB036 | ZHB048, ZHB060 | ZHB072 | | Downflow | Horizontal |
| 900 | 0.01 | 0.01 | --- | --- | 0.05 | 0.03 | 0.04 |
| 1000 | 0.02 | 0.01 | --- | --- | 0.06 | 0.03 | 0.05 |
| 1100 | 0.02 | 0.02 | --- | --- | 0.08 | 0.04 | 0.05 |
| 1200 | 0.02 | 0.02 | 0.01 | --- | 0.09 | 0.05 | 0.06 |
| 1300 | 0.03 | 0.02 | 0.02 | --- | 0.12 | 0.05 | 0.07 |
| 1400 | 0.03 | 0.03 | 0.02 | --- | 0.17 | 0.06 | 0.08 |
| 1500 | 0.04 | 0.03 | 0.02 | --- | 0.22 | 0.07 | 0.08 |
| 1600 | 0.04 | 0.03 | 0.03 | 0.03 | 0.26 | 0.08 | 0.09 |
| 1700 | 0.05 | 0.04 | 0.03 | 0.03 | 0.30 | 0.09 | 0.10 |
| 1800 | 0.05 | 0.04 | 0.03 | 0.03 | 0.33 | 0.10 | 0.11 |
| 1900 | 0.06 | 0.05 | 0.04 | 0.04 | 0.33 | 0.11 | 0.12 |
| 2000 | 0.06 | 0.05 | 0.04 | 0.04 | 0.31 | 0.12 | 0.13 |
| 2100 | --- | 0.06 | 0.05 | 0.05 | 0.27 | 0.13 | 0.14 |
| 2200 | --- | 0.06 | 0.05 | 0.05 | 0.29 | 0.14 | 0.15 |
| 2300 | --- | 0.07 | 0.05 | 0.05 | 0.31 | 0.15 | 0.16 |
| 2400 | --- | 0.07 | 0.06 | 0.06 | 0.32 | 0.16 | 0.18 |
| 2500 | --- | --- | --- | 0.06 | 0.34 | 0.18 | 0.19 |
| 2600 | --- | --- | --- | 0.07 | 0.38 | 0.19 | 0.20 |
| 2700 | --- | --- | --- | 0.07 | 0.42 | 0.20 | 0.21 |
| 2800 | --- | --- | --- | 0.07 | 0.45 | 0.22 | 0.23 |
| 2900 | --- | --- | --- | 0.08 | 0.49 | 0.23 | 0.24 |

BLOWER DATA

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

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

CEILING DIFFUSER AIR THROW DATA

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

¹ Effective throw based on terminal velocities of 75 ft. per minute.

ELECTRICAL/ELECTRIC HEAT DATA - ZHA
3 TON
ZHA036S4

| ¹ 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 | 1.7 | | 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 |
| | Full Load Amps | 4.6 | 6.6 | 2.1 | 3 | 1.7 | 2.4 |
| ² Maximum Overcurrent Protection | Unit Only | 25 | 25 | 15 | 15 | 15 | 15 |
| | With (1) 0.5 HP Power Exhaust | 25 | 25 | 15 | 15 | 15 | 15 |
| ³ Minimum Circuit Ampacity | Unit Only | 18 | 20 | 8 | 9 | 7 | 8 |
| | With (1) 0.5 HP Power Exhaust | 19 | 21 | 9 | 10 | 8 | 9 |

ELECTRIC HEAT DATA

| Electric Heat Voltage | | | | 208V | 240V | 208V | 240V | 480V | 480V | 600V | 600V |
|---|--|--------|--|------|------|------|------|------|------|------|------|
| ² Maximum Overcurrent Protection | Unit+ Electric Heat | 5 kW | | 35 | 35 | 35 | 35 | 20 | 20 | 15 | 15 |
| | | 7.5 kW | | 40 | 40 | 40 | 45 | 20 | 25 | 20 | 20 |
| | | 10 kW | | 45 | 50 | 50 | 50 | 25 | 25 | 20 | 20 |
| | | 15 kW | | 60 | 70 | 60 | 70 | 35 | 35 | 25 | 30 |
| ³ Minimum Circuit Ampacity | Unit+ Electric Heat | 5 kW | | 31 | 33 | 33 | 35 | 16 | 17 | 13 | 14 |
| | | 7.5 kW | | 37 | 40 | 39 | 42 | 20 | 21 | 16 | 17 |
| | | 10 kW | | 44 | 48 | 46 | 50 | 24 | 24 | 19 | 20 |
| | | 15 kW | | 57 | 63 | 59 | 65 | 31 | 32 | 25 | 26 |
| ² Maximum Overcurrent Protection | Unit+ Electric Heat and (1) 0.5 HP Power Exhaust | 5 kW | | 35 | 35 | 35 | 40 | 20 | 20 | 15 | 15 |
| | | 7.5 kW | | 40 | 45 | 45 | 45 | 20 | 25 | 20 | 20 |
| | | 10 kW | | 45 | 50 | 50 | 60 | 25 | 25 | 20 | 25 |
| | | 15 kW | | 60 | 70 | 60 | 70 | 35 | 35 | 30 | 30 |
| ³ Minimum Circuit Ampacity | Unit+ Electric Heat and (1) 0.5 HP Power Exhaust | 5 kW | | 32 | 34 | 34 | 36 | 17 | 18 | 14 | 15 |
| | | 7.5 kW | | 39 | 42 | 41 | 44 | 20 | 21 | 17 | 18 |
| | | 10 kW | | 45 | 49 | 47 | 51 | 24 | 25 | 20 | 21 |
| | | 15 kW | | 58 | 64 | 60 | 66 | 32 | 33 | 26 | 27 |

ELECTRIC HEAT ACCESSORIES

| | | | | | |
|-----------------|----------------------|-------|-------|-------|-------|
| Unit Fuse Block | Unit Only | 10A27 | 10A27 | 10A29 | 10A29 |
| | Unit + Power Exhaust | 10A27 | 10A27 | 10A29 | 10A29 |

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

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

² HACR type breaker or fuse.

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

ELECTRICAL/ELECTRIC HEAT DATA - ZHA**4 TON****ZHA048S4**

| ¹ 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 |
| | Full Load Amps | 4.6 | 6.6 | 2.1 | 3 | 1.7 | 2.4 |
| ² Maximum Overcurrent Protection | Unit Only | 30 | 30 | 15 | 15 | 15 | 15 |
| | With (1) 0.5 HP Power Exhaust | 30 | 30 | 15 | 15 | 15 | 15 |
| ³ Minimum Circuit Ampacity | Unit Only | 21 | 23 | 10 | 11 | 9 | 9 |
| | With (1) 0.5 HP Power Exhaust | 22 | 24 | 11 | 12 | 9 | 10 |

ELECTRIC HEAT DATA

| Electric Heat Voltage | | | 208V | 240V | 208V | 240V | 480V | 480V | 600V | 600V |
|---|--|---------|------|------|------|------|------|------|------|------|
| ² Maximum Overcurrent Protection | Unit+ Electric Heat | 5 kW | 40 | 40 | 40 | 45 | 20 | 20 | 15 | 15 |
| | | 7.5 kW | 45 | 45 | 45 | 50 | 25 | 25 | 20 | 20 |
| | | 10 kW | 50 | 60 | 50 | 60 | 25 | 30 | 25 | 25 |
| | | 15 kW | 60 | 70 | 70 | 70 | 35 | 35 | 30 | 30 |
| | | 22.5 kW | 80 | 90 | 90 | 90 | 45 | 45 | 40 | 40 |
| ³ Minimum Circuit Ampacity | Unit+ Electric Heat | 5 kW | 34 | 36 | 36 | 38 | 18 | 19 | 15 | 15 |
| | | 7.5 kW | 40 | 43 | 42 | 45 | 22 | 23 | 18 | 18 |
| | | 10 kW | 47 | 51 | 49 | 53 | 25 | 26 | 21 | 22 |
| | | 15 kW | 60 | 66 | 62 | 68 | 33 | 34 | 27 | 28 |
| | | 22.5 kW | 79 | 88 | 81 | 90 | 44 | 45 | 36 | 37 |
| ² Maximum Overcurrent Protection | Unit+ Electric Heat and (1) 0.5 HP Power Exhaust | 5 kW | 40 | 40 | 40 | 45 | 20 | 20 | 15 | 20 |
| | | 7.5 kW | 45 | 50 | 50 | 50 | 25 | 25 | 20 | 20 |
| | | 10 kW | 50 | 60 | 50 | 60 | 30 | 30 | 25 | 25 |
| | | 15 kW | 70 | 70 | 70 | 70 | 35 | 35 | 30 | 30 |
| | | 22.5 kW | 90 | 90 | 90 | 100 | 45 | 50 | 40 | 40 |
| ³ Minimum Circuit Ampacity | Unit+ Electric Heat and (1) 0.5 HP Power Exhaust | 5 kW | 35 | 37 | 37 | 39 | 18 | 19 | 15 | 16 |
| | | 7.5 kW | 42 | 45 | 44 | 47 | 22 | 23 | 18 | 19 |
| | | 10 kW | 48 | 52 | 50 | 54 | 26 | 27 | 21 | 22 |
| | | 15 kW | 61 | 67 | 63 | 69 | 34 | 34 | 27 | 28 |
| | | 22.5 kW | 81 | 90 | 83 | 92 | 45 | 46 | 36 | 37 |

ELECTRIC HEAT ACCESSORIES

| | | | | | |
|-----------------|----------------------|-------|-------|-------|-------|
| Unit Fuse Block | Unit Only | 10A27 | 10A27 | 10A29 | 10A29 |
| | Unit + Power Exhaust | 10A27 | 10A27 | 10A29 | 10A29 |

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

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

ELECTRICAL/ELECTRIC HEAT DATA - ZHA

5 TON

ZHA060S4

| ¹ 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 |
| | Full Load Amps | 4.6 | 6.6 | 2.1 | 3 | 1.7 | 2.4 |
| ² Maximum Overcurrent Protection | Unit Only | 35 | 35 | 20 | 20 | 15 | 15 |
| | With (1) 0.5 HP Power Exhaust | 35 | 40 | 20 | 20 | 15 | 15 |
| ³ Minimum Circuit Ampacity | Unit Only | 24 | 26 | 14 | 14 | 9 | 10 |
| | With (1) 0.5 HP Power Exhaust | 25 | 27 | 14 | 15 | 10 | 11 |

ELECTRIC HEAT DATA

| Electric Heat Voltage | | | 208V | 240V | 208V | 240V | 480V | 480V | 600V | 600V |
|---|--|---------|------|------|------|------|------|------|------|------|
| ² Maximum Overcurrent Protection | Unit+ Electric Heat | 5 kW | 45 | 45 | 45 | 50 | 25 | 25 | 15 | 20 |
| | | 7.5 kW | 50 | 50 | 50 | 50 | 30 | 30 | 20 | 20 |
| | | 10 kW | 50 | 60 | 60 | 60 | 30 | 30 | 25 | 25 |
| | | 15 kW | 70 | 70 | 70 | 80 | 40 | 40 | 30 | 30 |
| | | 22.5 kW | 90 | 100 | 90 | 100 | 50 | 50 | 40 | 40 |
| ³ Minimum Circuit Ampacity | Unit+ Electric Heat | 5 kW | 37 | 39 | 39 | 41 | 21 | 22 | 15 | 16 |
| | | 7.5 kW | 43 | 46 | 45 | 48 | 25 | 26 | 18 | 19 |
| | | 10 kW | 50 | 54 | 52 | 56 | 29 | 30 | 21 | 22 |
| | | 15 kW | 63 | 69 | 65 | 71 | 36 | 37 | 27 | 28 |
| | | 22.5 kW | 82 | 91 | 84 | 93 | 47 | 48 | 36 | 37 |
| ² Maximum Overcurrent Protection | Unit+ Electric Heat and (1) 0.5 HP Power Exhaust | 5 kW | 45 | 50 | 50 | 50 | 25 | 25 | 20 | 20 |
| | | 7.5 kW | 50 | 50 | 50 | 50 | 30 | 30 | 20 | 20 |
| | | 10 kW | 60 | 60 | 60 | 60 | 30 | 30 | 25 | 25 |
| | | 15 kW | 70 | 70 | 70 | 80 | 40 | 40 | 30 | 30 |
| | | 22.5 kW | 90 | 100 | 90 | 100 | 50 | 50 | 40 | 40 |
| ³ Minimum Circuit Ampacity | Unit+ Electric Heat and (1) 0.5 HP Power Exhaust | 5 kW | 38 | 40 | 40 | 42 | 22 | 23 | 16 | 17 |
| | | 7.5 kW | 45 | 48 | 47 | 50 | 25 | 26 | 19 | 20 |
| | | 10 kW | 51 | 55 | 53 | 57 | 29 | 30 | 22 | 23 |
| | | 15 kW | 64 | 70 | 66 | 72 | 37 | 38 | 28 | 29 |
| | | 22.5 kW | 84 | 93 | 86 | 95 | 48 | 49 | 37 | 38 |

ELECTRIC HEAT ACCESSORIES

| | | | | | |
|-----------------|----------------------|-------|-------|-------|-------|
| Unit Fuse Block | Unit Only | 10A28 | 10A28 | 10A29 | 10A29 |
| | Unit + Power Exhaust | 10A28 | 10A28 | 10A29 | 10A29 |

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

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

² HACR type breaker or fuse.

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

ELECTRICAL/ELECTRIC HEAT DATA - ZHB**3 TON****ZHB036S4**

| ¹ 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 | | 1 | | 0.6 | | 0.45 | |
| Power Exhaust (1) 0.5 HP | Full Load Amps | 1.5 | | 1.5 | | 0.6 | | 0.6 | |
| Indoor Blower Motor | Horsepower | 0.75 | 1.5 | 1 | 1.5 | 1 | 1.5 | 1 | 1.5 |
| | Full Load Amps | 7.6 | 11 | 4.6 | 6.6 | 2.1 | 3 | 1.7 | 2.4 |
| ² Maximum Overcurrent Protection | Unit Only | 40 | 45 | 25 | 25 | 15 | 15 | 15 | 15 |
| | With (1) 0.5 HP Power Exhaust | 40 | 45 | 25 | 25 | 15 | 15 | 15 | 15 |
| ³ Minimum Circuit Ampacity | Unit Only | 28 | 32 | 17 | 19 | 8 | 9 | 7 | 8 |
| | With (1) 0.5 HP Power Exhaust | 30 | 33 | 18 | 20 | 9 | 10 | 8 | 8 |

ELECTRIC HEAT DATA

| Electric Heat Voltage | | | | 208 | 240 | 208 | 240 | 240 | 240 | 480 | 480 | 600 | 600 |
|---|--|--------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ² Maximum Overcurrent Protection | Unit+ Electric Heat | 5 kW | | 60 | 60 | 60 | 60 | 35 | 35 | 15 | 20 | 15 | 15 |
| | | 7.5 kW | | 70 | 70 | 70 | 80 | 40 | 45 | 20 | 20 | 20 | 20 |
| | | 10 kW | | 80 | 80 | 80 | 90 | 50 | 50 | 25 | 25 | 20 | 20 |
| | | 15 kW | | 100 | 110 | 100 | 110 | 70 | 70 | 30 | 35 | 25 | 30 |
| ³ Minimum Circuit Ampacity | Unit+ Electric Heat | 5 kW | | 51 | 54 | 54 | 58 | 32 | 34 | 15 | 17 | 13 | 14 |
| | | 7.5 kW | | 62 | 67 | 65 | 71 | 40 | 42 | 19 | 20 | 16 | 17 |
| | | 10 kW | | 73 | 80 | 77 | 84 | 47 | 49 | 23 | 24 | 19 | 20 |
| | | 15 kW | | 96 | 106 | 99 | 110 | 62 | 64 | 30 | 32 | 25 | 26 |
| ² Maximum Overcurrent Protection | Unit+ Electric Heat and (1) 0.5 HP Power Exhaust | 5 kW | | 60 | 60 | 60 | 60 | 35 | 40 | 20 | 20 | 15 | 15 |
| | | 7.5 kW | | 70 | 70 | 70 | 80 | 45 | 45 | 20 | 25 | 20 | 20 |
| | | 10 kW | | 80 | 90 | 80 | 90 | 50 | 60 | 25 | 25 | 20 | 20 |
| | | 15 kW | | 100 | 110 | 110 | 125 | 70 | 70 | 35 | 35 | 25 | 30 |
| ³ Minimum Circuit Ampacity | Unit+ Electric Heat and (1) 0.5 HP Power Exhaust | 5 kW | | 52 | 56 | 56 | 59 | 34 | 36 | 16 | 17 | 13 | 14 |
| | | 7.5 kW | | 64 | 69 | 67 | 72 | 41 | 43 | 20 | 21 | 16 | 17 |
| | | 10 kW | | 75 | 82 | 78 | 85 | 49 | 51 | 23 | 25 | 19 | 20 |
| | | 15 kW | | 97 | 108 | 101 | 111 | 64 | 66 | 31 | 32 | 25 | 26 |

ELECTRIC HEAT ACCESSORIES

| | | | | | | |
|-----------------|----------------------|-------|-------|-------|-------|-------|
| Unit Fuse Block | Unit Only | 10A26 | 10A26 | 10A27 | 10A29 | 10A29 |
| | Unit + Power Exhaust | 10A26 | 10A26 | 10A27 | 10A29 | 10A29 |

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

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

ELECTRICAL/ELECTRIC HEAT DATA - ZHB
4 TON
ZHB048S4

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

ELECTRIC HEAT DATA

| Electric Heat Voltage | | | 208 | 240 | 208 | 240 | 208 | 240 | 208 | 240 | 480 | 480 | 600 | 600 |
|---|--|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ² Maximum Overcurrent Protection | Unit+ Electric Heat | 5 kW | 70 | 70 | 70 | 70 | 40 | 40 | 40 | 45 | 20 | 20 | 15 | 15 |
| | | 7.5 kW | 80 | 80 | 80 | 80 | 45 | 45 | 45 | 50 | 25 | 25 | 20 | 20 |
| | | 10 kW | 90 | 90 | 90 | 90 | 50 | 60 | 50 | 60 | 25 | 30 | 25 | 25 |
| | | 15 kW | 110 | 125 | 110 | 125 | 60 | 70 | 70 | 70 | 35 | 35 | 30 | 30 |
| | | 22 kW | 150 | 175 | 150 | 175 | 80 | 90 | 90 | 90 | 45 | 45 | 40 | 40 |
| ³ Minimum Circuit Ampacity | Unit+ Electric Heat | 5 kW | 57 | 61 | 61 | 64 | 34 | 36 | 36 | 38 | 18 | 19 | 15 | 15 |
| | | 7.5 kW | 69 | 74 | 72 | 77 | 40 | 43 | 42 | 45 | 22 | 23 | 18 | 18 |
| | | 10 kW | 80 | 87 | 83 | 90 | 47 | 51 | 49 | 53 | 25 | 26 | 21 | 22 |
| | | 15 kW | 103 | 113 | 106 | 116 | 60 | 66 | 62 | 68 | 33 | 34 | 27 | 28 |
| | | 22 kW | 136 | 152 | 140 | 155 | 79 | 88 | 81 | 90 | 44 | 45 | 36 | 37 |
| ² Maximum Overcurrent Protection | Unit+ Electric Heat and (1) 0.5 HP Power Exhaust | 5 kW | 70 | 70 | 70 | 80 | 40 | 40 | 40 | 45 | 20 | 20 | 15 | 20 |
| | | 7.5 kW | 80 | 80 | 80 | 90 | 45 | 50 | 50 | 50 | 25 | 25 | 20 | 20 |
| | | 10 kW | 90 | 90 | 90 | 100 | 50 | 60 | 50 | 60 | 30 | 30 | 25 | 25 |
| | | 15 kW | 110 | 125 | 110 | 125 | 70 | 70 | 70 | 70 | 35 | 35 | 30 | 30 |
| | | 22 kW | 150 | 175 | 150 | 175 | 90 | 90 | 90 | 100 | 45 | 50 | 40 | 40 |
| ³ Minimum Circuit Ampacity | Unit+ Electric Heat and (1) 0.5 HP Power Exhaust | 5 kW | 59 | 62 | 62 | 66 | 35 | 37 | 37 | 39 | 18 | 19 | 15 | 16 |
| | | 7.5 kW | 70 | 75 | 74 | 79 | 42 | 45 | 44 | 47 | 22 | 23 | 18 | 19 |
| | | 10 kW | 81 | 88 | 85 | 92 | 48 | 52 | 50 | 54 | 26 | 27 | 21 | 22 |
| | | 15 kW | 104 | 114 | 107 | 118 | 61 | 67 | 63 | 69 | 34 | 34 | 27 | 28 |
| | | 22 kW | 138 | 153 | 141 | 157 | 81 | 90 | 83 | 92 | 45 | 46 | 36 | 37 |

ELECTRIC HEAT ACCESSORIES

| | | | | | | | |
|-----------------|----------------------|-------|-------|-------|-------|-------|-------|
| Unit Fuse Block | Unit Only | 10A26 | 10A26 | 10A27 | 10A27 | 10A29 | 10A29 |
| | Unit + Power Exhaust | 10A26 | 10A26 | 10A27 | 10A27 | 10A29 | 10A29 |

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

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

² HACR type breaker or fuse.

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

ELECTRICAL/ELECTRIC HEAT DATA - ZHB
5 TON
ZHB060S4

| ¹ 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 | | 1 | | 0.9 | |
| Power Exhaust (1) 0.5 HP | Full Load Amps | 1.5 | | 1.5 | | 0.6 | | 0.6 | |
| Indoor Blower Motor | Horsepower | 0.75 | 1.5 | 1 | 1.5 | 1 | 1.5 | 1 | 1.5 |
| | Full Load Amps | 7.6 | 11 | 4.6 | 6.6 | 2.1 | 3 | 1.7 | 2.4 |
| ² Maximum Overcurrent Protection | Unit Only | 50 | 60 | 35 | 35 | 20 | 20 | 15 | 15 |
| | With (1) 0.5 HP Power Exhaust | 60 | 60 | 35 | 40 | 20 | 20 | 15 | 15 |
| ³ Minimum Circuit Ampacity | Unit Only | 37 | 41 | 24 | 26 | 14 | 14 | 9 | 10 |
| | With (1) 0.5 HP Power Exhaust | 39 | 42 | 25 | 27 | 14 | 15 | 10 | 11 |

ELECTRIC HEAT DATA

| Electric Heat Voltage | | | 208 | 240 | 208 | 240 | 208 | 240 | 208 | 240 | 480 | 480 | 600 | 600 |
|---|--|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ² Maximum Overcurrent Protection | Unit+ Electric Heat | 5 kW | 70 | 70 | 80 | 80 | 45 | 45 | 45 | 50 | 25 | 25 | 15 | 20 |
| | | 7.5 kW | 80 | 90 | 80 | 90 | 50 | 50 | 50 | 50 | 25 | 30 | 20 | 20 |
| | | 10 kW | 90 | 100 | 90 | 100 | 50 | 60 | 60 | 60 | 30 | 30 | 25 | 25 |
| | | 15 kW | 110 | 125 | 110 | 125 | 70 | 70 | 70 | 80 | 40 | 40 | 30 | 30 |
| | | 22 kW | 150 | 175 | 150 | 175 | 90 | 90 | 90 | 100 | 50 | 50 | 40 | 40 |
| ³ Minimum Circuit Ampacity | Unit+ Electric Heat | 5 kW | 60 | 63 | 63 | 67 | 36 | 38 | 39 | 41 | 21 | 22 | 15 | 16 |
| | | 7.5 kW | 71 | 76 | 75 | 80 | 42 | 45 | 45 | 48 | 24 | 26 | 18 | 19 |
| | | 10 kW | 83 | 90 | 86 | 93 | 49 | 53 | 52 | 56 | 28 | 30 | 21 | 22 |
| | | 15 kW | 105 | 116 | 109 | 119 | 62 | 68 | 65 | 71 | 36 | 37 | 27 | 28 |
| | | 22 kW | 139 | 155 | 142 | 158 | 81 | 90 | 84 | 93 | 47 | 48 | 36 | 37 |
| ² Maximum Overcurrent Protection | Unit+ Electric Heat and (1) 0.5 HP Power Exhaust | 5 kW | 70 | 80 | 80 | 80 | 45 | 45 | 50 | 50 | 25 | 25 | 20 | 20 |
| | | 7.5 kW | 80 | 90 | 90 | 90 | 50 | 50 | 50 | 50 | 30 | 30 | 20 | 20 |
| | | 10 kW | 90 | 100 | 100 | 100 | 50 | 60 | 60 | 60 | 30 | 30 | 25 | 25 |
| | | 15 kW | 110 | 125 | 110 | 125 | 70 | 70 | 70 | 80 | 40 | 40 | 30 | 30 |
| | | 22 kW | 150 | 175 | 150 | 175 | 90 | 100 | 90 | 100 | 50 | 50 | 40 | 40 |
| ³ Minimum Circuit Ampacity | Unit+ Electric Heat and (1) 0.5 HP Power Exhaust | 5 kW | 61 | 65 | 65 | 68 | 37 | 39 | 40 | 42 | 21 | 23 | 16 | 17 |
| | | 7.5 kW | 73 | 78 | 76 | 81 | 44 | 47 | 47 | 50 | 25 | 26 | 19 | 20 |
| | | 10 kW | 84 | 91 | 87 | 94 | 50 | 54 | 53 | 57 | 29 | 30 | 22 | 23 |
| | | 15 kW | 107 | 117 | 110 | 120 | 63 | 69 | 66 | 72 | 36 | 38 | 28 | 29 |
| | | 22 kW | 140 | 156 | 144 | 160 | 83 | 92 | 86 | 95 | 48 | 49 | 37 | 38 |

ELECTRIC HEAT ACCESSORIES

| | | | | | | | |
|-----------------|----------------------|-------|-------|-------|-------|-------|-------|
| Unit Fuse Block | Unit Only | 10A26 | 10A26 | 10A28 | 10A28 | 10A29 | 10A29 |
| | Unit + Power Exhaust | 10A26 | 10A26 | 10A28 | 10A28 | 10A29 | 10A29 |

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

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

² HACR type breaker or fuse.

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

ELECTRICAL/ELECTRIC HEAT DATA

6 TON

ZHB072S4

| ¹ Voltage - 60hz | | 208/230V - 3 Ph | | | 460V - 3 Ph | | | 575V - 3 Ph | | |
|---|-------------------------------|-----------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| Compressor | Rated Load Amps | 22.4 | | | 10.6 | | | 7.7 | | |
| | Locked Rotor Amps | 149 | | | 75 | | | 54 | | |
| Outdoor Fan Motor | Full Load Amps | 2.4 | | | 1.3 | | | 1 | | |
| 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 |
| ² Maximum Overcurrent Protection | Unit Only | 50 | 50 | 60 | 25 | 25 | 25 | 20 | 20 | 20 |
| | With (1) 0.5 HP Power Exhaust | 50 | 60 | 60 | 25 | 25 | 25 | 20 | 20 | 20 |
| ³ Minimum Circuit Ampacity | Unit Only | 35 | 37 | 38 | 17 | 18 | 18 | 13 | 14 | 14 |
| | With (1) 0.5 HP Power Exhaust | 37 | 39 | 40 | 18 | 19 | 19 | 13 | 14 | 14 |

ELECTRIC HEAT DATA

| Electric Heat Voltage | | | 208 | 240 | 208 | 240 | 208 | 240 | 480 | 480 | 480 | 600 | 600 | 600 |
|---|--|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ² Maximum Overcurrent Protection | Unit+ Electric Heat | 7.5 kW | 70 | 70 | 70 | 70 | 70 | 70 | 35 | 35 | 35 | 25 | 25 | 25 |
| | | 10 kW | 70 | 80 | 80 | 80 | 80 | 80 | 35 | 40 | 40 | 25 | 30 | 30 |
| | | 15 kW | 80 | 90 | 90 | 90 | 90 | 90 | 45 | 45 | 45 | 35 | 35 | 35 |
| | | 22 kW | 100 | 110 | 100 | 110 | 100 | 110 | 60 | 60 | 60 | 40 | 45 | 45 |
| | | 30 kW | 125 | 150 | 125 | 150 | 125 | 150 | 70 | 70 | 70 | 50 | 50 | 50 |
| ³ Minimum Circuit Ampacity | Unit+ Electric Heat | 7.5 kW | 55 | 58 | 57 | 60 | 58 | 61 | 28 | 29 | 30 | 22 | 23 | 23 |
| | | 10 kW | 62 | 66 | 64 | 68 | 64 | 68 | 32 | 33 | 33 | 25 | 26 | 26 |
| | | 15 kW | 75 | 81 | 77 | 83 | 77 | 84 | 40 | 41 | 41 | 31 | 32 | 32 |
| | | 22 kW | 94 | 103 | 96 | 105 | 97 | 106 | 51 | 52 | 52 | 40 | 41 | 41 |
| | | 30 kW | 114 | 126 | 116 | 128 | 117 | 129 | 62 | 63 | 64 | 49 | 50 | 50 |
| ² Maximum Overcurrent Protection | Unit+ Electric Heat and (1) 0.5 HP Power Exhaust | 7.5 kW | 70 | 70 | 70 | 70 | 70 | 70 | 35 | 35 | 35 | 25 | 25 | 25 |
| | | 10 kW | 70 | 80 | 80 | 80 | 80 | 80 | 35 | 40 | 40 | 30 | 30 | 30 |
| | | 15 kW | 90 | 90 | 90 | 90 | 90 | 90 | 45 | 45 | 45 | 35 | 35 | 35 |
| | | 22 kW | 100 | 110 | 100 | 110 | 100 | 110 | 60 | 60 | 60 | 40 | 45 | 45 |
| | | 30 kW | 125 | 150 | 125 | 150 | 125 | 150 | 70 | 70 | 70 | 50 | 50 | 60 |
| ³ Minimum Circuit Ampacity | Unit+ Electric Heat and (1) 0.5 HP Power Exhaust | 7.5 kW | 57 | 60 | 59 | 62 | 59 | 62 | 29 | 30 | 30 | 22 | 23 | 23 |
| | | 10 kW | 63 | 67 | 65 | 69 | 66 | 70 | 33 | 34 | 34 | 25 | 26 | 26 |
| | | 15 kW | 76 | 82 | 78 | 84 | 79 | 85 | 40 | 41 | 42 | 31 | 32 | 32 |
| | | 22 kW | 96 | 105 | 98 | 107 | 99 | 108 | 52 | 52 | 53 | 40 | 41 | 41 |
| | | 30 kW | 115 | 127 | 117 | 129 | 118 | 130 | 63 | 64 | 64 | 50 | 50 | 51 |

ELECTRIC HEAT ACCESSORIES

| | | | | | | |
|-----------------|----------------------|-------|-------|-------|-------|-------|
| Unit Fuse Block | Unit Only | 10A28 | 10A28 | 10A28 | 10A29 | 10A29 |
| | Unit + Power Exhaust | 10A28 | 10A28 | 10A28 | 10A29 | 10A29 |

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

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

² HACR type breaker or fuse.

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

ELECTRIC HEAT CAPACITIES

| Input Voltage | 5 kW | | | 7.5 kW | | | 10 kW | | |
|---------------|--------------|----------|-------------|--------------|----------|-------------|--------------|----------|-------------|
| | No of Stages | kW input | Btuh Output | No of Stages | kW input | Btuh Output | No of Stages | kW input | Btuh Output |
| 208 | 1 | 3.8 | 12,800 | 1 | 5.6 | 19,200 | 1 | 7.5 | 25,600 |
| 220 | 1 | 4.2 | 14,300 | 1 | 6.3 | 21,500 | 1 | 8.4 | 28,700 |
| 230 | 1 | 4.6 | 15,700 | 1 | 6.9 | 23,500 | 1 | 9.2 | 31,400 |
| 240 | 1 | 5.0 | 17,100 | 1 | 7.5 | 25,600 | 1 | 10.0 | 34,200 |
| 440 | 1 | 4.2 | 14,300 | 1 | 6.3 | 21,500 | 1 | 8.4 | 28,700 |
| 460 | 1 | 4.6 | 15,700 | 1 | 6.9 | 23,500 | 1 | 9.2 | 31,400 |
| 480 | 1 | 5.0 | 17,100 | 1 | 7.5 | 25,600 | 1 | 10.0 | 34,200 |
| 550 | 1 | 4.2 | 14,300 | 1 | 6.3 | 21,500 | 1 | 8.4 | 28,700 |
| 575 | 1 | 4.6 | 15,700 | 1 | 6.9 | 23,500 | 1 | 9.2 | 31,400 |
| 600 | 1 | 5.0 | 17,100 | 1 | 7.5 | 25,600 | 1 | 10.0 | 34,200 |
| Input Voltage | 15 kW | | | 22.5 kW | | | 30 kW | | |
| | No of Stages | kW input | Btuh Output | No of Stages | kW input | Btuh Output | No of Stages | kW input | Btuh Output |
| 208 | 1 | 11.2 | 38,400 | 1 | 16.9 | 57,700 | 1 | 22.5 | 76,800 |
| 220 | 1 | 12.6 | 43,000 | 1 | 18.9 | 64,500 | 1 | 25.2 | 86,000 |
| 230 | 1 | 13.8 | 47,000 | 1 | 20.7 | 70,700 | 1 | 27.5 | 93,900 |
| 240 | 1 | 15.0 | 51,200 | 1 | 22.5 | 76,800 | 1 | 30.0 | 102,400 |
| 440 | 1 | 12.6 | 43,000 | 1 | 18.9 | 64,500 | 1 | 25.2 | 86,000 |
| 460 | 1 | 13.8 | 47,000 | 1 | 20.7 | 70,700 | 1 | 27.5 | 93,900 |
| 480 | 1 | 15.0 | 51,200 | 1 | 22.5 | 76,800 | 1 | 30.0 | 102,400 |
| 550 | 1 | 12.6 | 43,000 | 1 | 18.9 | 64,500 | 1 | 25.2 | 86,000 |
| 575 | 1 | 13.8 | 47,000 | 1 | 20.7 | 70,700 | 1 | 27.5 | 93,900 |
| 600 | 1 | 15.0 | 51,200 | 1 | 22.5 | 76,800 | 1 | 30.0 | 102,400 |

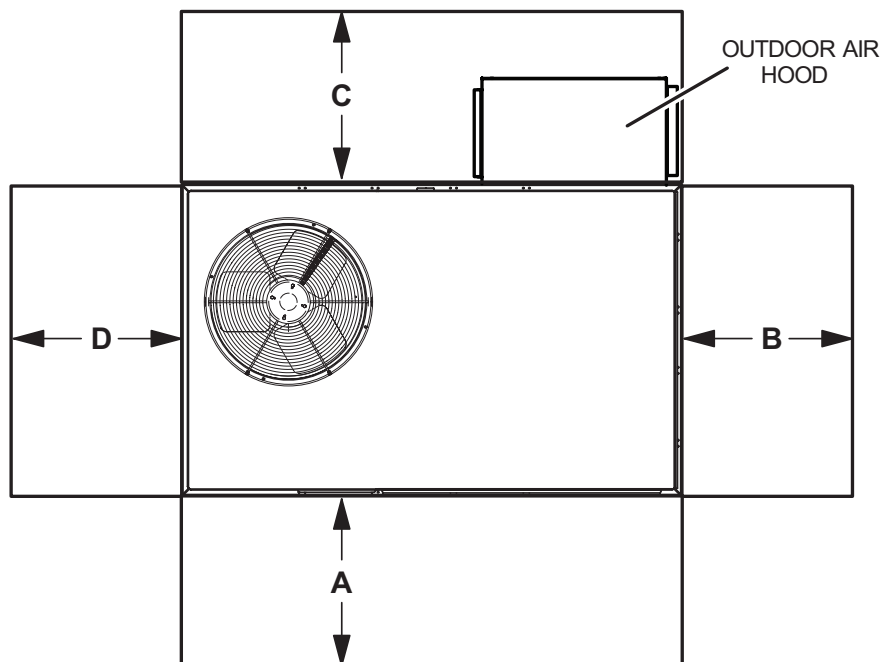
OUTDOOR SOUND DATA

| Unit Model No. | Octave Band Linear Sound Power Levels dB, re 10 ⁻¹² Watts - Center Frequency - Hz | | | | | | | ¹ Sound Rating Number (SRN) (dBA) |
|----------------|--|-----|-----|------|------|------|------|--|
| | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | |
| ZHA036 | 82 | 79 | 78 | 74 | 70 | 66 | 61 | 79 |
| ZHA048 | 82 | 79 | 78 | 74 | 70 | 66 | 61 | 79 |
| ZHA060 | 86 | 83 | 82 | 77 | 73 | 70 | 67 | 83 |
| ZHB036 | 82 | 79 | 78 | 74 | 70 | 66 | 61 | 79 |
| ZHB048 | 77 | 77 | 76 | 72 | 67 | 63 | 57 | 77 |
| ZHB060 | 85 | 81 | 81 | 76 | 71 | 69 | 67 | 82 |
| ZHB072 | 85 | 85 | 84 | 80 | 75 | 72 | 70 | 86 |

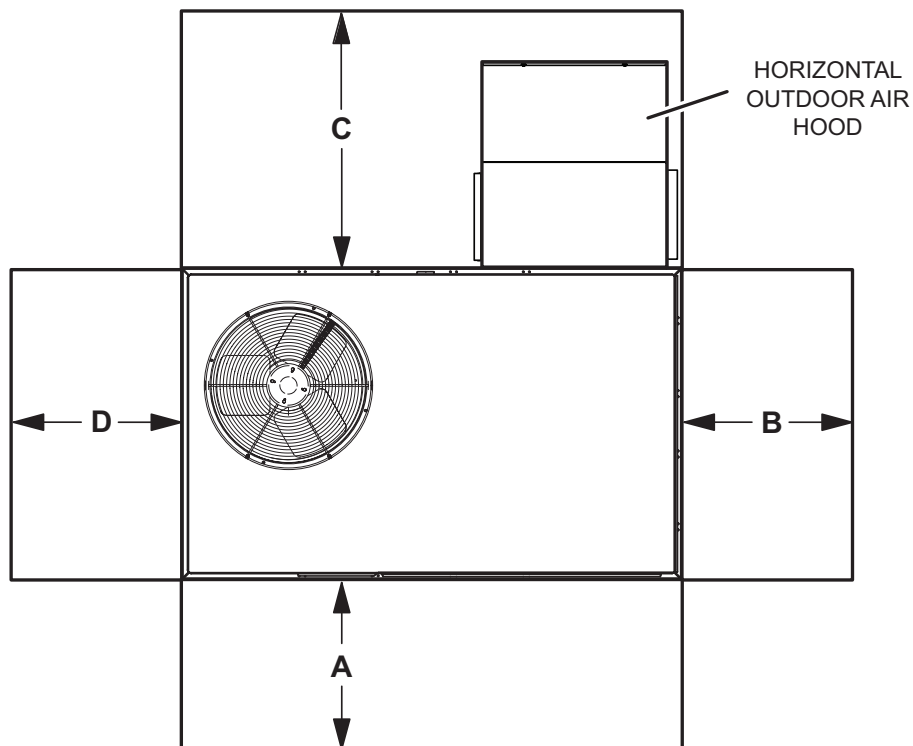
¹ Sound Rating Number according to ANSI/AHRI Standard 270-2008. "SRN" is the overall A-Weighted Sound Power Level, (LWA), dB (100 Hz to 10,000 Hz).

UNIT CLEARANCES - INCHES (MM)

UNIT WITH DOWNFLOW ECONOMIZER



UNIT WITH HORIZONTAL ECONOMIZER




| ¹ Unit Clearance | A | | B | | C Downflow | | C Horizontal | | D | | Top Clearance |
|-----------------------------|-----|-----|-----|-----|------------|-----|--------------|------|-----|-----|---------------|
| | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | |
| Service Clearance | 36 | 914 | 36 | 914 | 36 | 914 | 60 | 1524 | 36 | 914 | Unobstructed |
| Minimum Operation Clearance | 36 | 914 | 36 | 914 | 36 | 914 | 60 | 1524 | 36 | 914 | |

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

¹ Service Clearance - Required for removal of serviceable parts.

Minimum Operation Clearance - Required clearance for proper unit operation.

OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS

| Item | | Model No. | Catalog No. |
|--|--|--------------|-------------|
| COMFORTSENSE® 7500 COMMERCIAL 7-DAY PROGRAMMABLE THERMOSTAT | | | |
|  <ul style="list-style-type: none"> • Four-Stage Heating / Two-Stage Cooling Universal Multi-Stage • Intuitive Touchscreen Interface • Remote Indoor Temperature Sensing with Averaging • Outside or Discharge Air Temperature Display • Full Seven-Day Programming • Four Time Periods Per Day • Occupancy Scheduling with Economizer Relay Control • Away Mode • Holiday Scheduling • Smooth Setback Recovery (SSR) • Performance Reports • Notifications/Reminders • Dehumidification/Humiditrol® Control for Split Systems and Rooftop Units • Economizer Relay Control • Backlit Display • Wallplate Furnished | | C0STAT06FF1L | 13H15 |
| Optional Accessories | | | |
| ¹ Remote non-adjustable wall mount 20k temperature sensor | | C0SNZN01AE2- | 47W36 |
| ¹ Remote non-adjustable wall mount 10k temperature sensor | | C0SNZN73AE1- | 47W37 |
| Remote non-adjustable discharge air (duct mount) temperature sensor | | C0SNDC00AE1- | 19L22 |
| Outdoor temperature sensor | | C0SNSR03AE1- | X2658 |
| Locking cover (clear) | | C0MISC15AE1- | 39P21 |
| ¹ Remote sensors can be applied in any of the following combinations: One Sensor - (1) 47W36 Two Sensors - (2) 47W37 Three Sensors - (2) 47W36 and (1) 47W37 Four Sensors - (4) 47W36 Five Sensors - (3) 47W36 and (2) 47W37 | | | |
| COMFORTSENSE® 3000 COMMERCIAL 5-2 DAY PROGRAMMABLE THERMOSTAT | | | |
|  <ul style="list-style-type: none"> • Two-Stage Heating / Two-Stage Cooling Conventional Systems • Intuitive Interface • 5-2 Day Programming • Program Hold • Remote Indoor Temperature Sensing • Smooth Setback Recovery (SSR) • Economizer Relay Control • Maintenance/Filter/Service Reminders • Backlit Display • Wallplate Furnished • Simple Up and Down Temperature Control. | | C0STAT05FF1L | 11Y05 |
| Optional Accessories | | | |
| Remote non-adjustable wall mount 10k averaging temperature sensor | | C0SNZN73AE1- | 47W37 |
| Optional wall mounting plate | | C0MISC17AE1- | X2659 |
| DIGITAL NON-PROGRAMMABLE THERMOSTAT | | | |
|  <ul style="list-style-type: none"> • One-Stage Heating / Cooling Conventional Systems • Intuitive Interface • Automatic Changeover • Backlit Display • Simple Up and Down Temperature Control. | | C0STAT12AE1L | 51M32 |
| Optional Accessories | | | |
| Outdoor temperature sensor | | C0SNSR04AE1- | X2658 |
| Optional wall mounting plate | | C0MISC17AE1- | X2659 |

WEIGHT DATA

| Model Number | Net | | | | Shipping | | | |
|----------------|------|-----|------|-----|----------|-----|------|-----|
| | Base | | Max. | | Base | | Max. | |
| | lbs. | kg | lbs. | kg | lbs. | kg | lbs. | kg |
| ZHA036S | 530 | 240 | 581 | 264 | 535 | 243 | 586 | 266 |
| ZHB036S | 580 | 263 | 634 | 288 | 585 | 265 | 639 | 290 |
| ZHA048S | 539 | 244 | 590 | 268 | 544 | 247 | 595 | 270 |
| ZHB048S | 585 | 265 | 639 | 290 | 590 | 268 | 644 | 292 |
| ZHA060S | 585 | 265 | 639 | 290 | 590 | 268 | 644 | 292 |
| ZHB060S | 610 | 277 | 664 | 301 | 615 | 279 | 669 | 303 |
| ZHB072S | 683 | 310 | 702 | 318 | 715 | 324 | 735 | 333 |

Base Unit - The unit with NO OPTIONS.

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

OPTIONS / ACCESSORIES

| | | | | Shipping Weights | |
|---|--|--|-------------|------------------|----|
| | | | | lbs. | kg |
| ECONOMIZER | | | | | |
| Economizer | | | | | |
| Economizer, Includes Outdoor Air Hood and Barometric Relief Dampers with Hood | | | Downflow | 62 | 28 |
| | | | Horizontal | 92 | 42 |
| OUTDOOR AIR | | | | | |
| Outdoor Air Dampers | | | | | |
| Motorized | | | | 39 | 18 |
| Manual | | | | 29 | 13 |
| POWER EXHAUST | | | | | |
| Standard Static | | | Downflow | 54 | 24 |
| | | | Horizontal | 41 | 19 |
| ELECTRIC HEAT | | | | | |
| | | | 5 kW | 25 | 11 |
| | | | 7.5 kW | 26 | 12 |
| | | | 10 kW | 27 | 12 |
| | | | 15 kW | 27 | 12 |
| | | | 22.5 kW | 29 | 13 |
| | | | 30 kW | 30 | 14 |
| ROOF CURBS | | | | | |
| Hybrid Roof Curbs, Downflow | | | | | |
| 8 in. height | | | Z1CURB70A-1 | 63 | 29 |
| 14 in. height | | | Z1CURB71A-1 | 83 | 38 |
| 18 in. height | | | Z1CURB72A-1 | 93 | 42 |
| 24 in. height | | | Z1CURB73A-1 | 113 | 51 |
| CEILING DIFFUSERS | | | | | |
| Step-Down | | | RTD9-65S | 80 | 36 |
| | | | RTD11-95S | 118 | 54 |
| Flush | | | FD9-65S | 80 | 36 |
| | | | FD11-95S | 118 | 54 |

DIMENSIONS - INCHES (MM) - ZHA

| 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. | |
| | lbs. | kg | lbs. | kg | lbs. | kg | lbs. | kg | lbs. | kg | lbs. | kg | lbs. | kg | lbs. | kg | in. | mm | in. | mm | in. | mm | in. | mm |
| 036 | 136 | 62 | 152 | 69 | 126 | 57 | 157 | 71 | 129 | 58 | 138 | 62 | 139 | 63 | 134 | 61 | 39.5 | 1003 | 37.5 | 953 | 23.25 | 591 | 25 | 635 |
| 048 | 139 | 63 | 155 | 70 | 128 | 58 | 159 | 72 | 131 | 59 | 140 | 63 | 142 | 64 | 136 | 62 | 39.5 | 1003 | 37.5 | 953 | 23.25 | 591 | 25 | 635 |
| 060 | 172 | 78 | 190 | 86 | 139 | 63 | 171 | 77 | 123 | 56 | 132 | 60 | 151 | 69 | 147 | 67 | 42 | 1067 | 40 | 1016 | 25 | 635 | 26.5 | 673 |

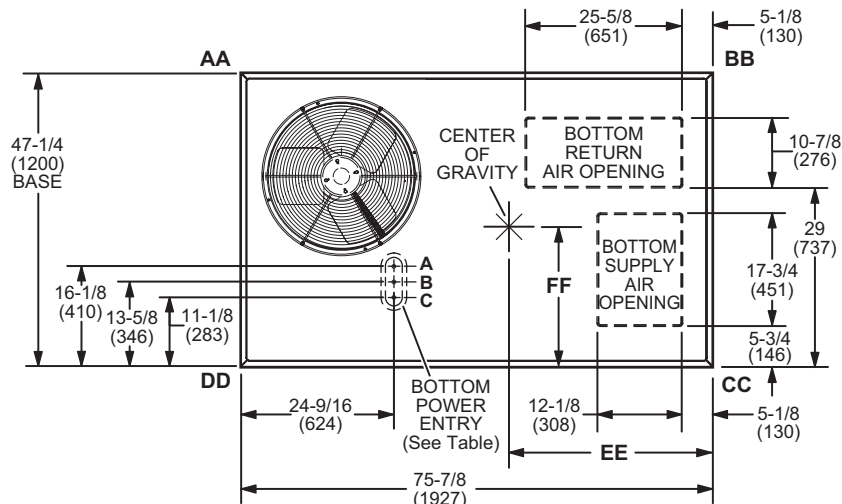
Base Unit - The unit with NO OPTIONS.

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

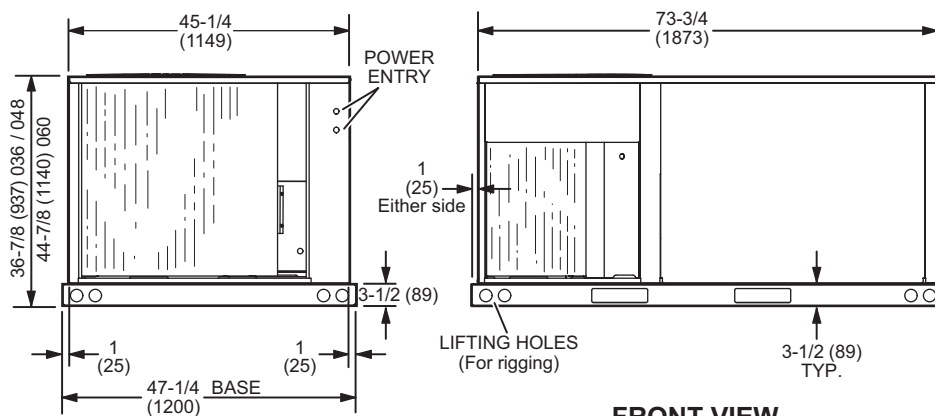
BOTTOM POWER ENTRY

Holes required for Optional Bottom Power Entry Kit

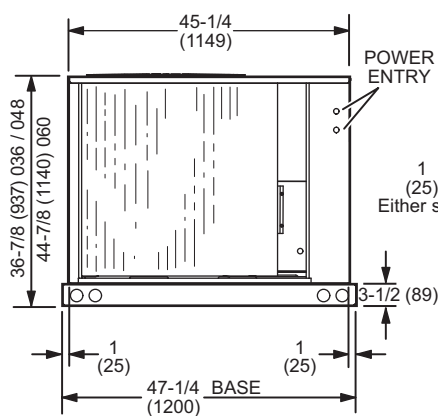
| | Threaded Conduit Fittings (Provided in Kit) | Wire Use | Hole Diameter Required in Unit Base (Max.) |
|---|---|----------|--|
| A | 1/2 | ACC | 7/8 (23) |
| B | 1/2 | 24V | 7/8 (23) |
| C | 3/4 | POWER | 1-1/8 (29) |



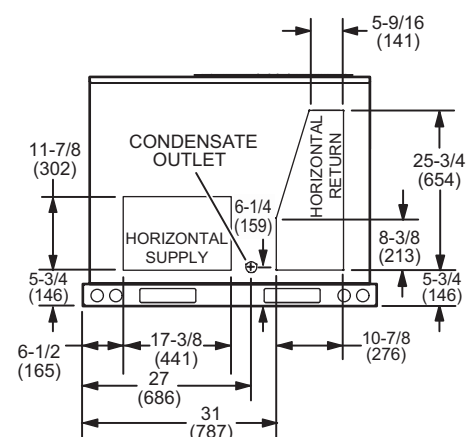
TOP VIEW (Base)



FRONT VIEW



END VIEW



END VIEW

DIMENSIONS - INCHES (MM) - ZHB

| 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. | |
| | lbs. | kg | lbs. | kg | lbs. | kg | lbs. | kg | lbs. | kg | lbs. | kg | lbs. | kg | lbs. | kg | in. | mm | in. | mm | in. | mm | in. | mm |
| 036 | 158 | 72 | 173 | 78 | 133 | 60 | 145 | 66 | 124 | 56 | 135 | 61 | 147 | 67 | 160 | 73 | 41.25 | 1048 | 39.25 | 997 | 24.5 | 622 | 25.75 | 654 |
| 048 | 168 | 76 | 183 | 83 | 136 | 62 | 148 | 67 | 120 | 54 | 130 | 59 | 148 | 67 | 161 | 73 | 42 | 1067 | 40 | 1016 | 25 | 635 | 26.5 | 673 |
| 060 | 163 | 74 | 177 | 80 | 142 | 64 | 155 | 70 | 142 | 64 | 155 | 70 | 163 | 74 | 177 | 80 | 40.5 | 1029 | 38.5 | 978 | 23.5 | 597 | 25 | 635 |
| 072 | 149 | 68 | 143 | 65 | 200 | 91 | 200 | 91 | 191 | 87 | 209 | 95 | 143 | 65 | 150 | 68 | 42 | 1067 | 41 | 1041 | 24 | 610 | 23 | 584 |

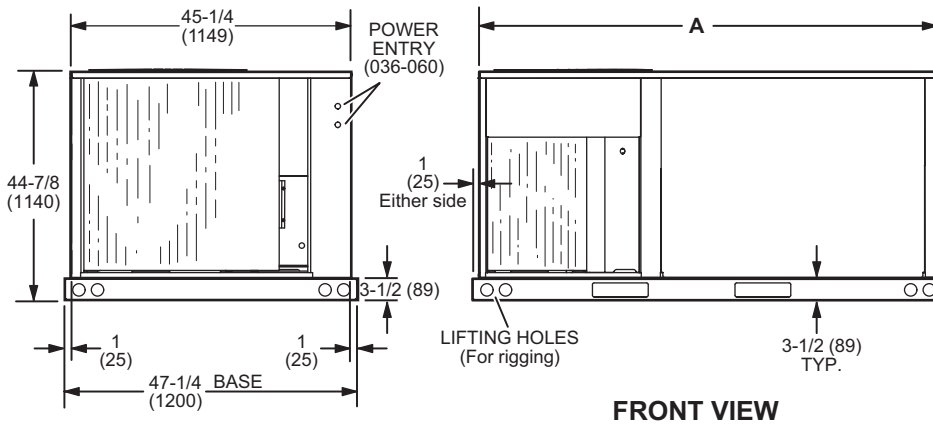
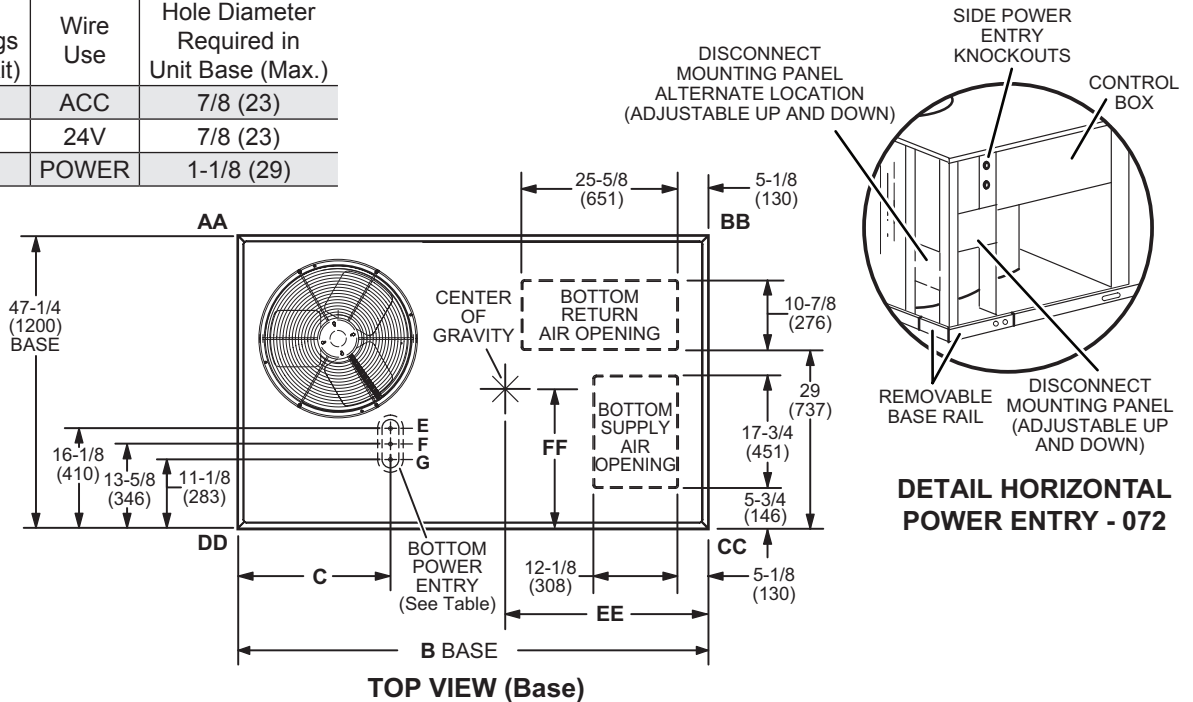
Base Unit - The unit with NO OPTIONS.

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

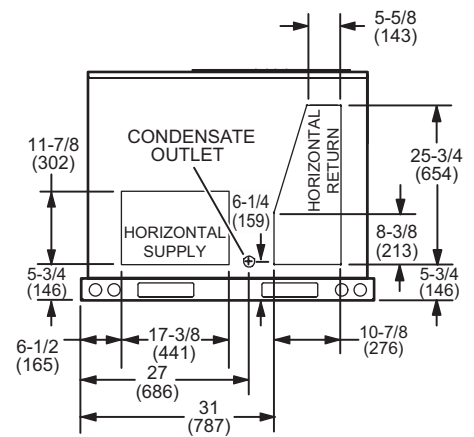
BOTTOM POWER ENTRY

Holes required for Optional Bottom Power Entry Kit

| | Threaded Conduit Fittings (Provided in Kit) | Wire Use | Hole Diameter Required in Unit Base (Max.) |
|----------|---|----------|--|
| E | 1/2 | ACC | 7/8 (23) |
| F | 1/2 | 24V | 7/8 (23) |
| G | 3/4 | POWER | 1-1/8 (29) |

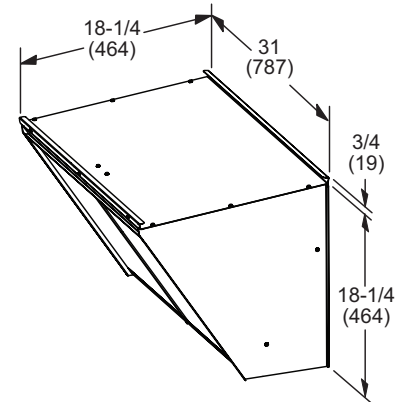
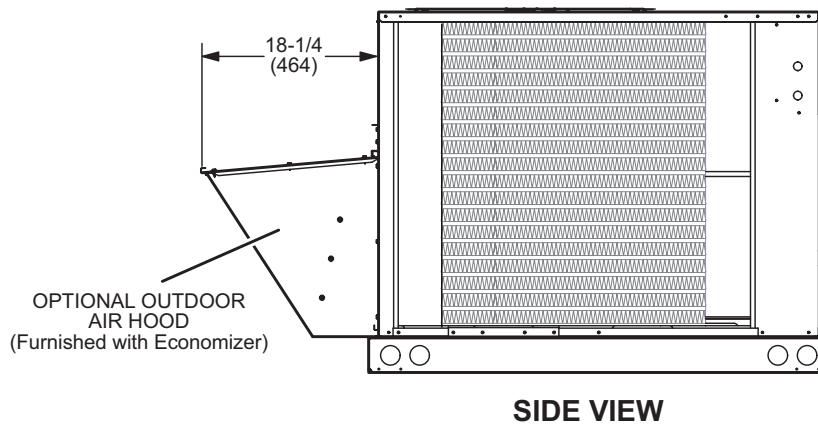


END VIEW

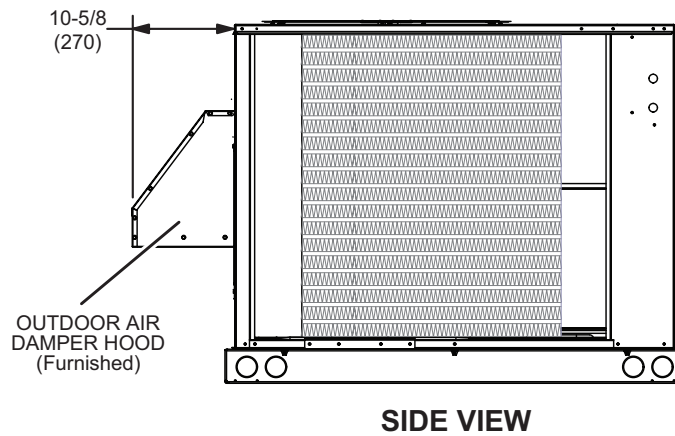


| Model Number | A | | B | | C | |
|--------------------|--------|------|--------|------|--------|-----|
| | in. | mm | in. | mm | in. | mm |
| ZHB036, 048 | 73-3/4 | 1873 | 75-7/8 | 1927 | 24-5/8 | 625 |
| ZHB060 | 73-3/4 | 1873 | 75-7/8 | 1927 | 24-5/8 | 625 |
| ZHB072 | 83-1/4 | 2115 | 85-1/4 | 2165 | 34 | 864 |

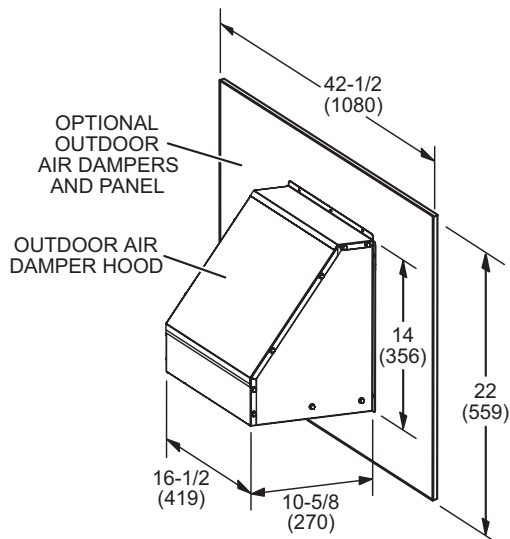
**OUTDOOR AIR HOOD DETAIL FOR OPTIONAL ECONOMIZER
(Downflow Applications)**



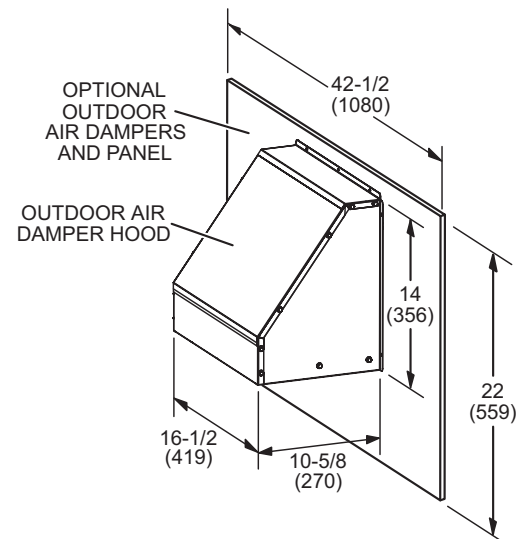
OUTDOOR AIR DAMPER HOOD DETAIL (Downflow or Horizontal Applications)



MANUAL OUTDOOR AIR HOOD

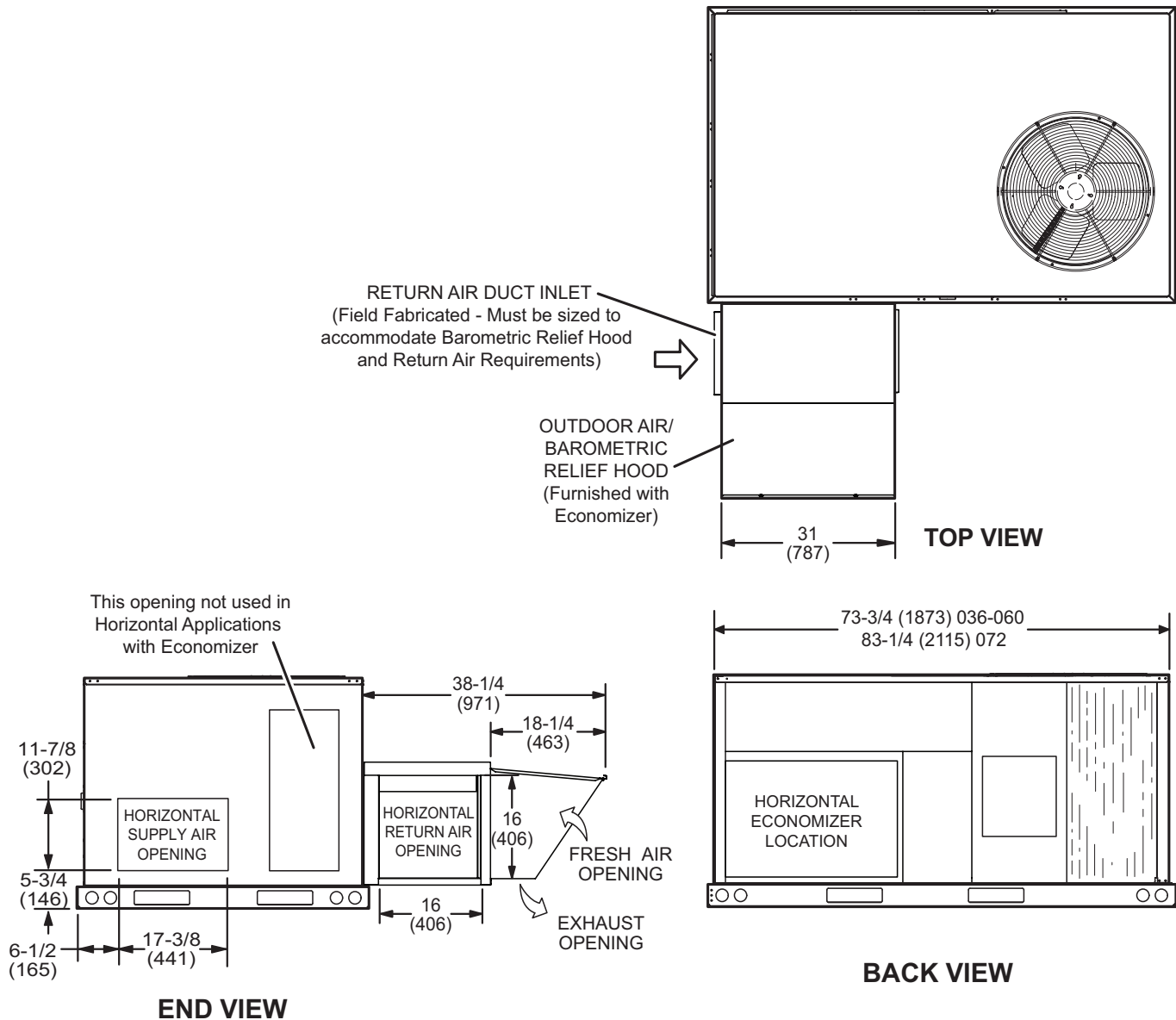


MOTORIZED OUTDOOR AIR HOOD



DIMENSIONS - ACCESSORIES - INCHES (MM)

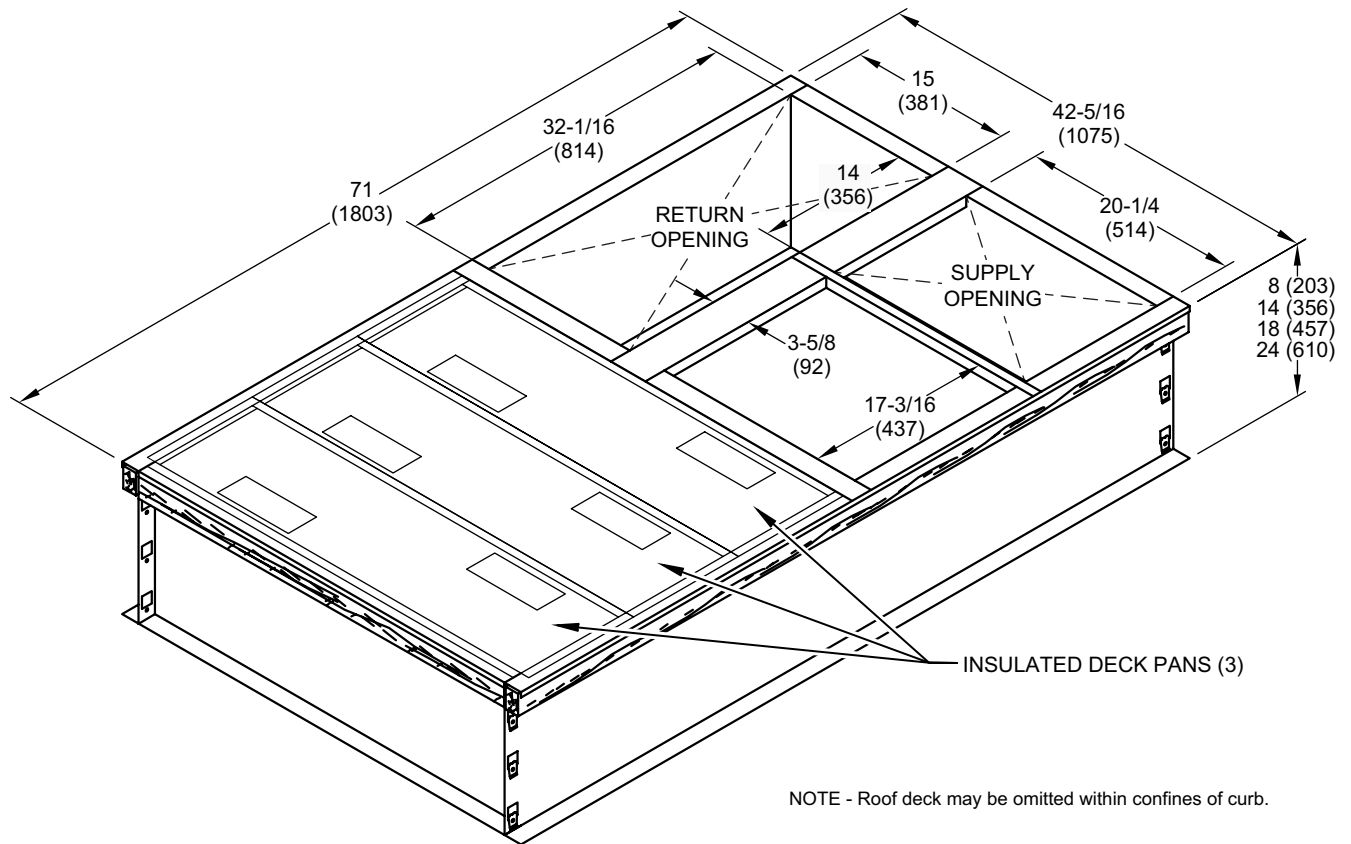
OUTDOOR AIR HOOD DETAIL WITH OPTIONAL ECONOMIZER AND BAROMETRIC RELIEF DAMPERS (Horizontal Applications)



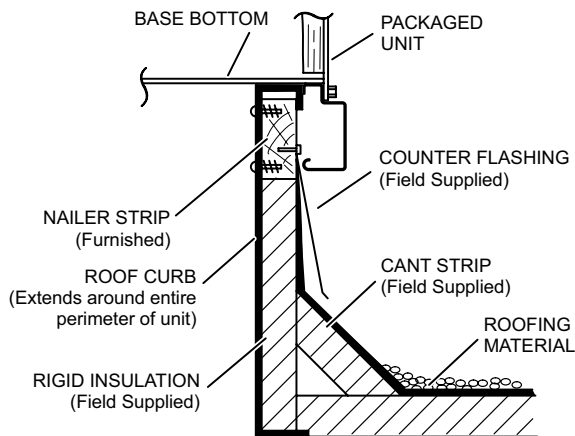
Note - Return Air Duct and Transition must be supported.

DIMENSIONS - ACCESSORIES - INCHES (MM)

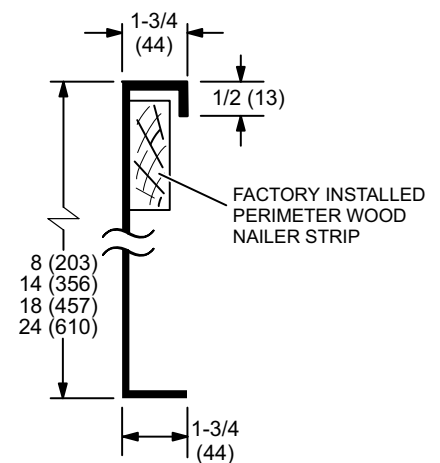
HYBRID ROOF CURBS - DOUBLE DUCT OPENING



TYPICAL FLASHING DETAIL FOR ROOF CURB



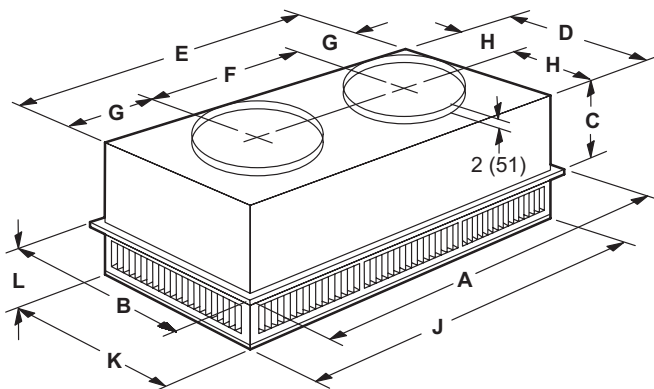
DETAIL ROOF CURB



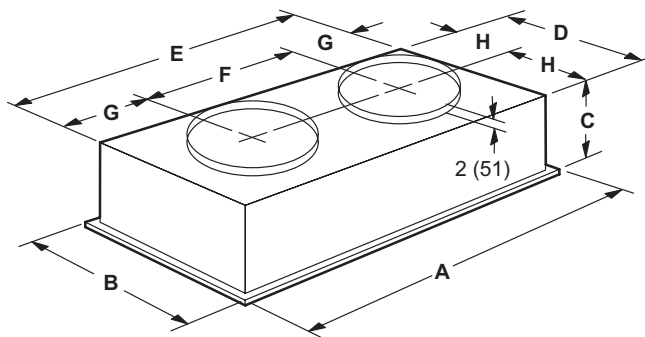
DIMENSIONS - ACCESSORIES - INCHES (MM)

COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

STEP-DOWN CEILING DIFFUSER



FLUSH CEILING DIFFUSER



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

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

REVISIONS

| Sections | Description of Change |
|----------|------------------------|
| Document | Added new unit ZHB072. |



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