



PACKAGE AIR CONDITIONING UNITS

FORM NO. STZ-936

Featuring Earth-Friendly R-410A Refrigerant



TZCAC HIGH EFFICIENCY SERIES
NOMINAL SIZES 6-12.5 TONS [21.1-44.0 kW]
ASHRAE 90.1-2010 COMPLIANT MODELS



*"Proper sizing and installation of equipment is critical to achieve optimal performance.
Ask your Contractor for details or visit www.energystar.gov."*

TABLE OF CONTENTS



Unit Features & Benefits	3-7
Selection Procedure	8
Model Identification Options	9-11
General Data	
TZCAC- Series	12-14
General Data Notes	15
Performance Data	
TZCAC- Series	16-18
Airflow Performance	
TZCAC- Series	19-23
Electrical Data	
TZCAC- Series	24-25
Units with Heater Kits	26-27
Dimensional Data	28-31
Accessories	32-52
Mechanical Specifications	53-54
Typical Wiring	55-58
Limited Warranty	60

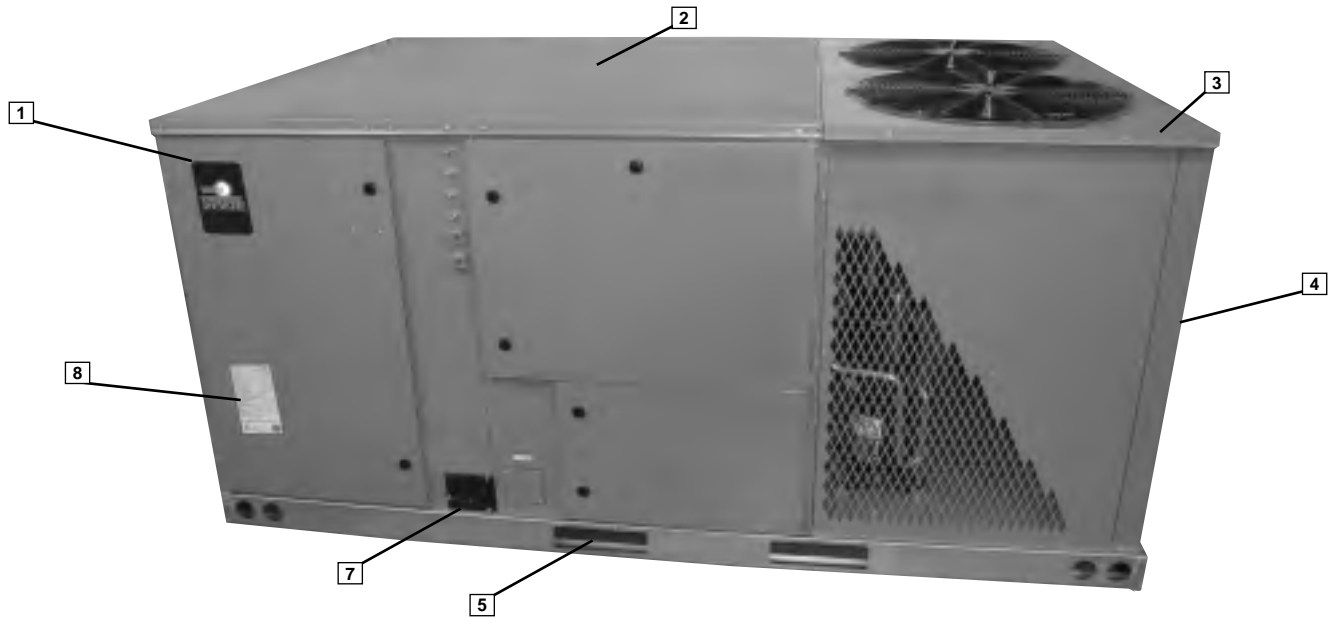
These quality features are included in the Thermal Zone® Package Air Conditioner Unit



STANDARD FEATURES INCLUDE:

- R-410A HFC refrigerant.
- Complete factory charged, wired and run tested.
- Scroll compressors with internal line break overload and high-pressure protection.
- Single stage compressor on B072 and B085 models.
- Two stage compressor on B090 – B150 models.
- Convertible airflow.
- TXV refrigerant metering system on each circuit (except on B072 and B085).
- High Pressure and Low Pressure/Loss of charge protection standard on all models.
- Solid Core liquid line filter drier on each circuit.
- Single slab, single pass designed evaporator and condenser coils facilitate easy cleaning for maintained high efficiencies.
- Cooling operation up to 125 degree F ambient.
- Foil faced insulation encapsulated throughout entire unit minimizes airborne fibers from the air stream.
- Hinged major access door with heavy-duty gasketing, 1/4 turn latches and door retainers.
- Slide Out Indoor fan assembly for added service convenience.
- Powder Paint Finish meets ASTM B117 steel coated on each side for maximum protection. G90 galvanized.
- One piece top cover and one piece base pan with drawn supply and return opening for superior water management.
- Forkable base rails for easy handling and lifting.
- Single point electrical connections.
- Internally sloped slide out condensate pan conforms to ASHRAE 62 standards.
- High performance belt drive motor with variable pitch pulleys and quick adjust belt system.
- Permanently lubricated evaporator, condenser and gas heat inducer motors.
- Condenser motors are internally protected, totally enclosed with shaft down design.
- 2 inch filter standard with slide out design.
- 24 volt control system with resettable circuit breakers.
- Colored and labeled wiring.
- Copper tube/Aluminum Fin coils (12 1/2 uses micro channel condenser).
- Molded compressor plug.
- Supplemental electric heat provides 100% efficient heating.

UNIT FEATURES & BENEFITS—TZCAC SERIES



Thermal Zone® Package equipment is designed from the ground up with the latest features and benefits required to compete in today's market. The clean design stands alone in the industry and is a testament to the quality, reliability, ease of installation and serviceability that goes into each unit. Outwardly, the large Thermal Zone® *Commercial Series*™ label (1) identifies the brand to the customer. The sheet-metal cabinet (2) uses nothing less than 18-gauge material for structural components with an underlying coat of G90. To ensure the leak-proof integrity of these units, the design utilizes a one-piece top with a 1/8" drip lip (3), gasket-protected panels and screws. The Thermal Zone® hail guard (optional) (4) is its trademark, and sets the standard for coil protection in the industry. Every Thermal Zone® package unit uses the toughest finish in the industry, using electro deposition baked-on enamel tested to withstand a rigorous 1000-hour salt spray test, per ASTM B117.

Anything built to last must start with the right foundation. In this case, the foundation is 14-gauge, commercial-grade, full-perimeter base rails (5), which integrate fork slots and rigging holes to save set-up time on the job site. The base pan is stamped, which forms a 1-1/8" flange around the supply and return cover and has eliminated the worry of water entering the conditioned space (6). The insulation has been placed on the underside of the basepan, removing areas that would allow for potential moisture accumulation, which can facilitate growth of harmful bacteria. All insulation is secured with both adhesive and mechanical fasteners, and all edges are hidden. The drainpan (7) is made of material that resists the growth of harmful bacteria and is sloped for the latest IAQ benefits. Furthermore, the drain pan slides out for easy cleaning.



During development, each unit was tested to U.L. 1995, ARI 340-370 and other Thermal Zone®-required reliability tests. Thermal Zone® adheres to stringent ISO 9002 quality procedures, and each unit bears the U.L. and ARI certification labels located on the unit nameplate (8). Contractors can rest assured that when a Thermal Zone® package unit arrives at the job, it is ready to go with a factory charge and quality checks. Each unit also proudly displays the "Made in the USA" designation.

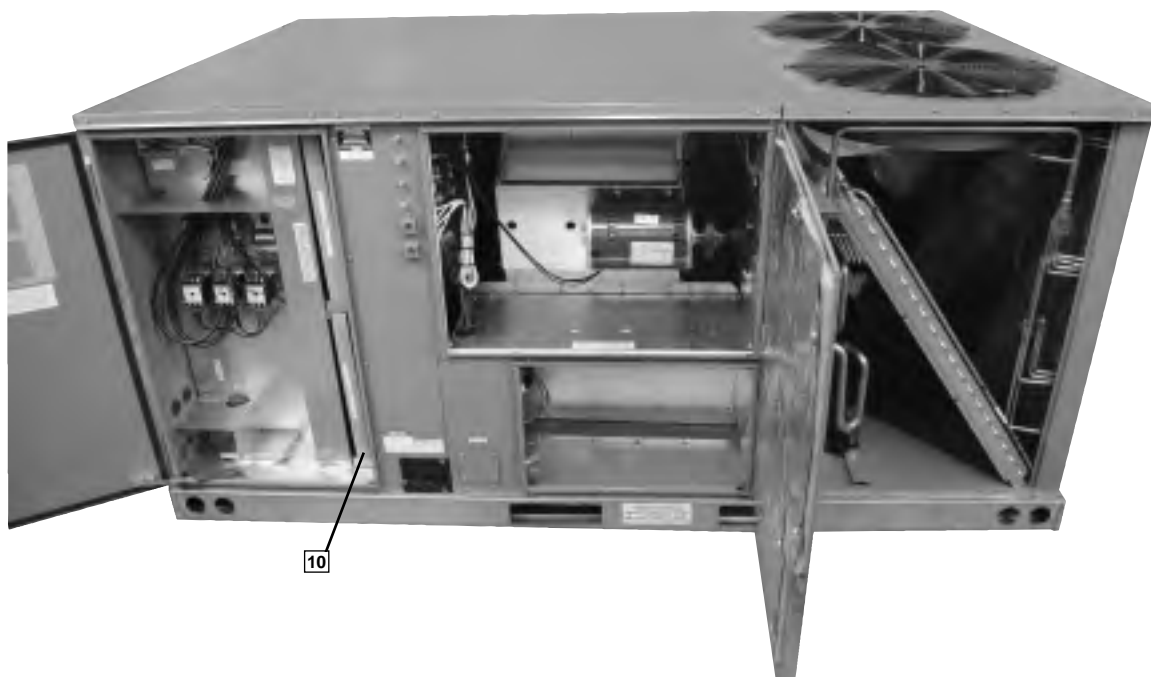
Access to all major compartments is from the front of the unit, including the filter and electrical compartment, blower compartment, heating section, and outdoor section. Each compartment has 1/4 turn fasteners and hinged access. Each panel is permanently embossed with the compartment name (control/filter access, blower access and electric heat access).

Electrical and filter compartment access is through a large, hinged-access panel. On the outside of the panel is the unit nameplate, which contains the model and serial number, electrical data and other important unit information.

The unit charging chart is located on the inside of the electrical and filter compartment door. Electrical wiring diagrams are found on the control box cover, which allows contractors to move them to more readable locations. To the right of the control box the model and serial number can be found. Having this information on the inside will assure model identification for the life of the product. The production line quality test assurance label is also placed in this location (9). The two-inch throwaway filters (10) are easily removed on a tracked system for easy replacement.



UNIT FEATURES & BENEFITS—TZCAC SERIES



Inside the control box (11), each electrical component is clearly identified with a label that matches the component to the wire diagram for ease of trouble shooting. All wiring is numbered on each end of the termination and color-coded to match the wiring diagram. The control transformer has a low voltage circuit breaker that trips if a low voltage electrical short occurs. There is a blower contactor and compressor for each compressor.



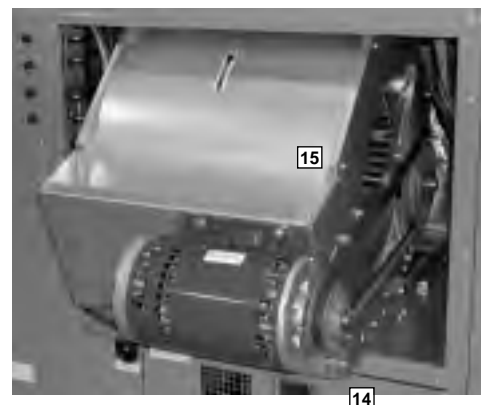
For added convenience in the field, a factory-installed convenience outlet (12) is available. Low and High voltage can enter either from the side or through the base. Low-voltage connections are made integrated cooling control. The high-voltage connection is terminated at the number 1 compressor contactor. The suggested mounting for the field-installed disconnect is on the exterior side of the electrical control box.



To the right of the electrical and filter compartment are the externally mounted gauge ports, which are permanently identified by embossed wording that clearly identifies the compressor circuit, high pressure connection and low pressure connection (13). With the gauge ports mounted externally, an accurate diagnostic of system operation can be performed quickly and easily. The blower compartment is to the right of the gauge ports and can be accessed by 1/4 turn fasteners. To allow easy maintenance of the

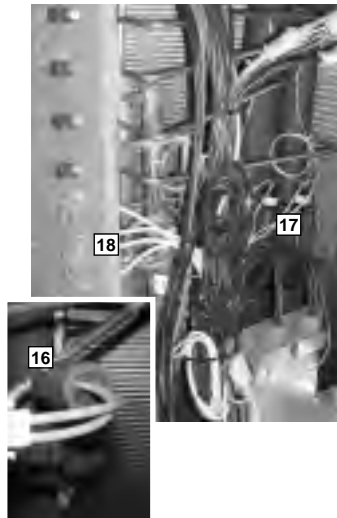


blower assembly, the entire assembly easily slides out by removing the 3/8" screws from the blower retention bracket. The adjustable motor pulley (14) can easily be adjusted by loosening the bolts on either side of the motor mount. Removing the bolts allows for easy removal of the blower pulley by pushing the blower assembly up to loosen the belt. Once the pulley is removed, the motor sheave can be adjusted to the desired number of turns, ranging from 0 to 6 turns open. Where the demands for the job require high static, Thermal Zone® has high-static drives available that deliver nominal airflow up to 2" of static. By referring to the airflow performance tables listed in the installation instructions, proper static pressure and CFM requirements can be dialed in. The scroll housing (15) and blower scroll provide quiet and efficient airflow. The blower sheave is secured by an "H" bushing which firmly secures the pulley to the blower shaft for years of trouble-free operation. The "H" bushing allows for easy removal of the blower pulley from the shaft, as opposed to the use of a set screw, which can score the shaft, creating burrs that make blower-pulley removal difficult.



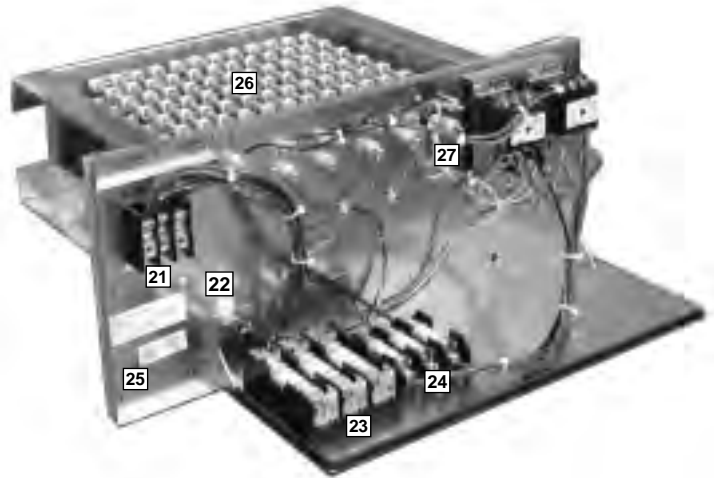
UNIT FEATURES & BENEFITS—TZCAC SERIES

Also inside the blower compartment is the low-ambient control (16), low-pressure switch (17), high-pressure switch (18) and freeze stat refrigerant safety device (19) (optional). The low-ambient control allows for operation of the compressor down to 0 degrees ambient temperature by cycling the outdoor fans on high pressure. The high-pressure switch will shut off the compressors if pressures exceeds, 610 PSIG are detected, this may occur if the outdoor fan motor fails. The low-pressure switch shuts off the compressors if low pressure is detected due to loss of charge. The freeze stat protects the compressor if the evaporator coil gets too cold (below freezing) due to low airflow. Each factory-installed option is brazed into the appropriate high or low side and wired appropriately. Use of polarized plugs and sharder fittings allow for easy field installation.



Inside the blower compartment the interlaced evaporator can also be viewed. The evaporator uses enhanced fin technology for maximum heat transfer. The TXV metering device assures even distribution of refrigerant throughout the evaporator. (Note: 6 & 7 1/2 single stage have a orifice refrigerant control.)

Wiring throughout the unit is neatly bundled and routed. Where wire harnesses go through the condenser bulkhead or blower deck, a molded wire harness assembly (20) provides an air-tight and water-tight seal, and provides strain relief. Care is also taken to tuck raw edges of insulation behind sheet metal to improve indoor air quality.

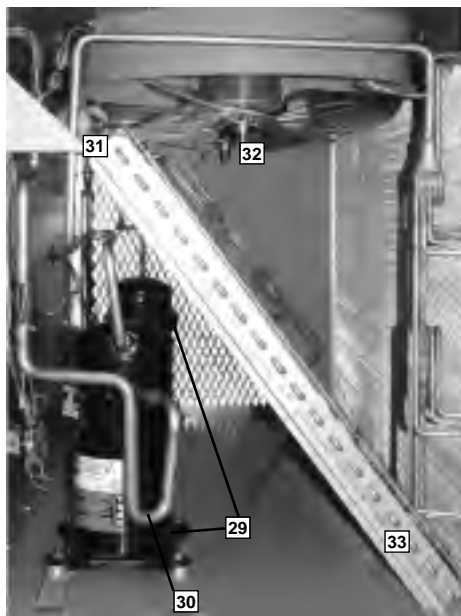


The heating compartment contains the latest electric furnace technology on the market. The 100% efficient electric furnace can be factory-installed or easily field-installed. Built with ease-of-installation in mind, the electric furnace is completely wired for slide-in, plug-and-play installation in the field. With choices of up to six kilowatt offerings, the contractor is assured to get the correct amount of heating output to meet the designed heating load.

Power hook-up in the field is easy with single-point wiring to a terminal block (21) and a polarized plug for the low-voltage connection (22). The electric furnace comes with fuses for the unit (23) and for the electric furnace (24), and is UL certified (25). The electric heating elements are of a wound-wire construction (26) and isolated with ceramic bushings. The limit switch (27) protects the design from over-temperature conditions. Each electric furnace has the capability to be converted from single-stage operation to two-stage operation by removing a jumper on the low-voltage terminal strip.

UNIT FEATURES & BENEFITS—TZCAC SERIES

The compressor compartment houses the heart-beat of the unit. The scroll compressor (29) is known for its long life, and for reliable, quiet, and efficient operation. Each compressor has molded compressor plug eliminating potential for mis wiring. The suction and discharge lines are designed with shock loops (30) to absorb the strain and stress that the starting torque, steady state operation, and shut down cycle impose on the refrigerant tubing. Each compressor and circuit is independent for built-in redundancy, and each circuit is clearly marked throughout the system. Each unit has two stages of efficient cooling operation, first stage is approximately 50% of second stage (072 & 085 single stage).



Each unit comes standard with filter dryer (31). The condenser fan motor (32) can easily be accessed and maintained through the compressor compartment. The polarized plug connection allows the motor to be changed quickly and eliminates the need to snake wires through the unit.

The outdoor coil uses the latest enhanced fin design (33) for the most effective method of heat transfer. The outdoor coil is protected by optional louvered panels, which allow unobstructed airflow while protecting the unit from both Mother Nature and vandalism.

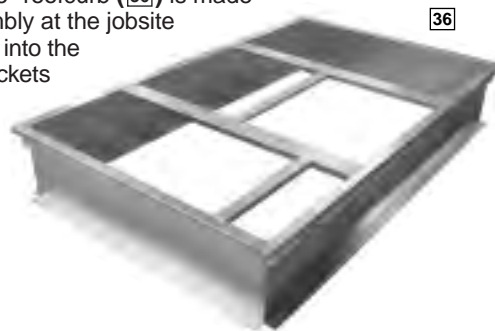
Each unit is designed for both downflow or horizontal applications (34) for job configuration flexibility. The return air compartment can also contain an economizer (35).



Four models exist, one for downflow applications, and one for horizontal applications each with or without smoke detector. Each unit is pre-wired for the economizer to allow quick plug-in installation. The economizer is also available as a factory-installed option. Power Exhaust is easily field-installed. The economizer, which provides free cooling when outdoor conditions are suitable and also provides fresh air to meet local requirements, comes standard with single enthalpy controls. The controls can be upgraded to dual enthalpy easily in the field. The direct drive actuator combined with gear drive dampers has eliminated the need for linkage adjustment in the field. The economizer control has a minimum position setpoint, an outdoor-air setpoint, a mix-air setpoint, and a CO₂ setpoint. Barometric relief is standard on all economizers. The power exhaust is housed in the barometric relief opening and is easily slipped in with a plug-in assembly. The wire harness to the economizer also has accommodations for a smoke detector.



The Thermal Zone® roofcurb (36) is made for toolless assembly at the jobsite by engaging a pin into the hinged corner brackets into the adjacent curb sides, which makes the assembly process quick and easy.



SELECTION PROCEDURE EXAMPLE—TZCAC SERIES

To select an TZCAC- Cooling and Heating unit to meet a job requirement, follow this procedure, with example, using data supplied in this specification sheet.

1. DETERMINE COOLING AND HEATING REQUIREMENTS AND SPECIFIC OPERATING CONDITIONS FROM PLANS AND SPECS.

Example:

Total cooling capacity— 106,000 BTUH [31.26 kW]
 Sensible cooling capacity— 82,000 BTUH [24.03 kW]
 Heating capacity— 150,000 BTUH [43.96 kW]
 *Condenser Entering Air— 95°F [35°C] DB
 *Evaporator Mixed Air Entering—65°F [18°C] WB;
 78°F [26°C] DB
 *Indoor Air Flow (vertical)— 3600 CFM [1699 L/s]
 *External Static Pressure— .40 in. WG

2. SELECT UNIT TO MEET COOLING REQUIREMENTS.

Since total cooling is within the range of a nominal 10 ton [35.2 kW] unit, enter cooling performance table at 95°F [35°C] DB condenser inlet air. Interpolate between 63°F [2°C] and 67°F [19°C] to determine total and sensible capacity and power input for 65°F [18°C] WB evap inlet air at 4000 CFM [1888 L/s] indoor air flow (table basis):

Total Capacity = 118,900 BTUH [34.80 kW]
 Sensible Capacity = 99,950 BTUH [29.29 kW]
 Power Input (Compressor and Cond. Fans) = 8,950 watts

Use formula $[1.10 \times \text{CFM} \times (1 - \text{DR}) \times (\text{dbE} - 80)]$ in note ① to determine sensible capacity at 80°F [26.7°C] DB evaporator entering air:

Sensible Capacity = 92,268 BTUH [27.24 kW]

3. CORRECT CAPACITIES OF STEP 2 FOR ACTUAL AIR FLOW.

Select factors from airflow correction table at 3600 CFM [1699 L/s] and apply to data obtained in step 2 to obtain gross capacity:

Total Capacity, $118,900 \times .98 = 116,522$ BTUH [34.15 kW]
 Sensible Capacity, $92,268 \times .95 = 87,655$ BTUH [25.67 kW]
 Power Input $11,650 \times .99 = 8,861$ Watts

These are Gross Capacities, not corrected for blower motor heat or power.

4. DETERMINE BLOWER SPEED AND WATTS TO MEET SYSTEM DESIGN.

Enter Indoor Blower performance table at 3600 CFM [1699 L/s]. Total ESP (external static pressure) per the spec of .40 in. includes the system duct and grilles. Add from the table "Component Air Resistance," .076 for wet coil, .13 for vertical air flow, for a total selection static pressure of .606 (.6) inches of water, and determine:

RPM = 796
 WATTS = 1,650
 DRIVE = L (standard 2 H.P. motor)

5. CALCULATE INDOOR BLOWER BTUH HEAT EFFECT FROM MOTOR WATTS, STEP 4.

$$\text{BTUH} = 1,650 \times 3.412 = 5,630$$

6. CALCULATE NET COOLING CAPACITIES, EQUAL TO GROSS CAPACITY, STEP 3, MINUS INDOOR BLOWER MOTOR HEAT.

$$\text{Net Total Capacity} = 116,522 - 5,630 = 110,892 \text{ BTUH [32.5 kW]}$$

$$\text{Net Sensible Capacity} = 87,655 - 5,630 = 82,025 \text{ BTUH [24.04 kW]}$$

7. CALCULATE UNIT INPUT AND JOB EER.

$$\text{Total Power Input} = 88,610 \text{ (step 3)} + 1,650 \text{ (step 4)} = 10,511 \text{ Watts}$$

$$\text{EER} = \frac{\text{Net Total BTUH [kW]} \text{ (step 6)}}{\text{Power Input, Watts (above)}} = \frac{110,892}{10,511} = 10.55$$

8. SELECT UNIT HEATING CAPACITY.

Units with heater kits section find unit heater kw and convert watts to BTU: add blower BTUH heat effect (step 5).

CC51C	Heater Kit
kW x 3412	= 163,776 BTUH [48.00 kW]
	+ 5,630 BTUH [1.65 kW]
Heating Capacity =	169,406 BTUH [49.65 kW]

*NOTE: These operating conditions are typical of a commercial application in a 95°F/79°F [35°C/26°C] design area with indoor design of 76°F [24°C] DB and 50% RH and 10% ventilation air, with the unit roof mounted and centered on the zone it conditions by ducts.

[] Designates Metric Conversions

MODEL IDENTIFICATION—TZCAC SERIES



<u>TZ</u>	<u>C</u>	<u>AC</u>	<u>—</u>	<u>072</u>	<u>D</u>	<u>L</u>	<u>B</u>	<u>A</u>
THERMAL ZONE®	COMMERCIAL	AIR CONDITIONING CONVERTIBLE		COOLING CAPACITY (BTUH) [kW]	ELECTRICAL DESIGNATION	DESIGN SERIES	B = BELT DRIVE	REVISION
				072 = 72,000 [21.10]	C = 208-230V	L = R-410A		
				085 = 85,000 [24.91]	—3PH—60Hz			
				090 = 90,000 [26.38]	D = 460V			
				102 = 102,000 [29.89]	—3PH—60Hz			
				120 = 120,000 [35.17]				
				150 = 150,000 [43.96]				

[] Designates Metric Conversions

OPTIONS—TZCAC SERIES

6 TO 10 TON [21.1 TO 35.2 kW]

Option Code	Hail Guard	Non-Powered Convenience Outlet	Low Ambient/ Freeze Stat
AD	x		
AG		x	
AP			x
BY	x		x
BJ	x	x	
CX	x	x	x
JC		x	x

12.5 TON [44 kW] OPTION CODE

Option Code	Non-Powered Convenience Outlet	Low Ambient/ Freeze Stat
AG	x	
AP		x
JC	x	x

"x" indicates factory installed option.

[] Designates Metric Conversions

**ECONOMIZER SELECTION FOR
6 TO 12.5 TON [21.1 TO 44.0 kW]**

	No Economizer	Single Enthalpy Economizer with Barometric Relief	Single Enthalpy Economizer with Barometric Relief and Smoke Detector
A	x		
B		x	
C			x

"x" indicates factory installed option.

Instructions for Factory Installed Option(s) Selection

Note: Three characters following the model number will be utilized to designate a factory-installed option or combination of options. If no factory option(s) is required, nothing follows the model number.

Step 1. After a basic rooftop model is selected, choose a *two-character* option code from the FACTORY INSTALLED OPTION SELECTION TABLE.

Proceed to Step 2.

Step 2. The last option code character is utilized for factory-installed economizers. Choose a character from the FACTORY INSTALLED ECONOMIZER SELECTION TABLE.

[] Designates Metric Conversions

GENERAL DATA—TZCAC SERIES

NOM. SIZES 6-12.5 TONS [21.1-44.0 kW] ASHRAE 90.1-2010 COMPLIANT MODELS

Model TZCAC- Series	072CLBA	072DLBA	085CLBA	085DLBA
Cooling Performance¹				CONTINUED →
Gross Cooling Capacity Btu [kW]	76,000 [22.27]	76,000 [22.27]	88,000 [25.78]	88,000 [25.78]
EER/SEER ²	11.5/NA	11.5/NA	11.2/NA	11.2/NA
Nominal CFM/ARI Rated CFM [L/s]	2400/2375 [1133/1121]	2400/2375 [1133/1121]	2800/3000 [1321/1416]	2800/3000 [1321/1416]
ARI Net Cooling Capacity Btu [kW]	73,000 [21.39]	73,000 [21.39]	85,000 [24.9]	85,000 [24.9]
Net Sensible Capacity Btu [kW]	53,900 [15.79]	53,900 [15.79]	66,100 [19.37]	66,100 [19.37]
Net Latent Capacity Btu [kW]	19,100 [5.6]	19,100 [5.6]	18,900 [5.54]	18,900 [5.54]
Integrated Part Load Value ³	N/A	N/A	N/A	N/A
Net System Power kW	6.31	6.31	7.53	7.53
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)⁴	88	88	88	88
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm] OD	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	13.5 [1.25]	13.5 [1.25]	27 [2.51]	27 [2.51]
Rows / FPI [FPcm]	1 / 22 [9]	1 / 22 [9]	1 / 22 [9]	1 / 22 [9]
Indoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	13.5 [1.25]	13.5 [1.25]	13.5 [1.25]	13.5 [1.25]
Rows / FPI [FPcm]	2 / 18 [7]	2 / 18 [7]	2 / 18 [7]	2 / 18 [7]
Refrigerant Control	Orifices	Orifices	Orifices	Orifices
Drain Connection No./Size in. [mm]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]
Outdoor Fan—Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	2/24 [609.6]	2/24 [609.6]	2/24 [609.6]	2/24 [609.6]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	8000 [3775]	8000 [3775]	8000 [3775]	8000 [3775]
No. Motors/HP	2 at 1/3 HP	2 at 1/3 HP	2 at 1/3 HP	2 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan—Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/11x12 [279x305]	1/11x12 [279x305]	1/15x15 [381x381]	1/15x15 [381x381]
Drive Type/No. Speeds	Belt/Variable	Belt/Variable	Belt/Variable	Belt/Variable
No. Motors	1	1	1	1
Motor HP	1 1/2	1 1/2	2	2
Motor RPM	1725	1725	1725	1725
Motor Frame Size	56	56	56	56
Filter—Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(No.) Size Recommended in. [mm]	(6)2x18x18 [51x457x457]	(6)2x18x18 [51x457x457]	(6)2x18x18 [51x457x457]	(6)2x18x18 [51x457x457]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	120 [3402]	120 [3402]	190.9 [5412]	190.9 [5412]
Weights				
Net Weight lbs. [kg]	901 [409]	901 [409]	965 [438]	965 [438]
Ship Weight lbs. [kg]	938 [425]	938 [425]	1002 [455]	1002 [455]

See Page 15 for Notes.

[] Designates Metric Conversions

NOM. SIZES 6-12.5 TONS [21.1-44.0 kW] ASHRAE 90.1-2010 COMPLIANT MODELS

Model TZCAC- Series	090CLBA	090DLBA	102CLBA	102DLBA
Cooling Performance¹				
Gross Cooling Capacity Btu [kW]	93,000 [27.25]	93,000 [27.25]	101,000 [29.59]	101,000 [29.59]
EER/SEER ²	11.2/NA	11.2/NA	11.2/NA	11.2/NA
Nominal CFM/ARI Rated CFM [L/s]	3000/2775 [1416/1310]	3000/2775 [1416/1310]	3200/3200 [1510/1510]	3200/3200 [1510/1510]
ARI Net Cooling Capacity Btu [kW]	90,000 [26.37]	90,000 [26.37]	97,000 [28.42]	97,000 [28.42]
Net Sensible Capacity Btu [kW]	63,100 [18.49]	63,100 [18.49]	74,000 [21.68]	74,000 [21.68]
Net Latent Capacity Btu [kW]	26,900 [7.88]	26,900 [7.88]	23,000 [6.74]	23,000 [6.74]
Integrated Part Load Value ³	13	13	12.9	12.9
Net System Power kW	7.99	7.99	8.59	8.59
Compressor				
No./Type	2/Scroll	2/Scroll	2/Scroll	2/Scroll
Outdoor Sound Rating (dB)⁴				
	88	88	88	88
Outdoor Coil—Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
Tube Size in. [mm] OD	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm] OD	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	27 [2.51]	2.7 [0.25]	27 [2.51]	27 [2.51]
Rows / FPI [FPcm]	1 / 22 [9]	1 / 22 [9]	2 / 18 [7]	2 / 18 [7]
Indoor Coil—Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	13.5 [1.25]	13.5 [1.25]	13.5 [1.25]	13.5 [1.25]
Rows / FPI [FPcm]	2 / 18 [7]	2 / 18 [7]	2 / 18 [7]	2 / 18 [7]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]
Outdoor Fan—Type				
Propeller	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	2/24 [609.6]	2/24 [609.6]	2/24 [609.6]	2/24 [609.6]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	8000 [3775]	8000 [3775]	8000 [3775]	8000 [3775]
No. Motors/HP	2 at 1/3 HP	2 at 1/3 HP	2 at 1/3 HP	2 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan—Type				
FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/15x15 [381x381]	1/15x15 [381x381]	1/15x15 [381x381]	1/15x15 [381x381]
Drive Type/No. Speeds	Belt/Variable	Belt/Variable	Belt/Variable	Belt/Variable
No. Motors	1	1	1	1
Motor HP	2	2	3	3
Motor RPM	1725	1725	1725	1725
Motor Frame Size	56	56	56	56
Filter—Type				
Disposable	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(No.) Size Recommended in. [mm]	(6)2x18x18 [51x457x457]	(6)2x18x18 [51x457x457]	(6)2x18x18 [51x457x457]	(6)2x18x18 [51x457x457]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]				
	107.5/110.7 [3048/3138]	107.5/110.7 [3048/3138]	154.4/166.6 [4377/4723]	154.4/166.6 [4377/4723]
Weights				
Net Weight lbs. [kg]	1017 [461]	1017 [461]	1067 [484]	1067 [484]
Ship Weight lbs. [kg]	1054 [478]	1054 [478]	1104 [501]	1104 [501]

CONTINUED →

See Page 15 for Notes.

[] Designates Metric Conversions

GENERAL DATA—TZCAC SERIES

NOM. SIZES 6-12.5 TONS [21.1-44.0 kW] ASHRAE 90.1-2010 COMPLIANT MODELS

Model TZCAC- Series	120CLBA	120DLBA	150CLBA	150DLBA
Cooling Performance¹				CONTINUED →
Gross Cooling Capacity Btu [kW]	123,000 [36.04]	123,000 [36.04]	156,000 [45.71]	156,000 [45.71]
EER/SEER ²	11.2/NA	11.2/NA	11/NA	11/NA
Nominal CFM/ARI Rated CFM [L/s]	4000/3750 [1888/1770]	4000/3750 [1888/1770]	5000/4400 [2360/2076]	5000/4400 [2360/2076]
ARI Net Cooling Capacity Btu [kW]	118,000 [34.57]	118,000 [34.57]	148,000 [43.36]	148,000 [43.36]
Net Sensible Capacity Btu [kW]	88,800 [26.02]	88,800 [26.02]	107,600 [31.53]	107,600 [31.53]
Net Latent Capacity Btu [kW]	29,200 [8.56]	29,200 [8.56]	40,400 [11.84]	40,400 [11.84]
Integrated Part Load Value ³	12.9	12.9	11.9	11.9
Net System Power kW	10.49	10.49	13.39	13.39
Compressor				
No./Type	2/Scroll	2/Scroll	2/Scroll	2/Scroll
Outdoor Sound Rating (dB)⁴	88	88	88	88
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	MicroChannel	MicroChannel
Tube Size in. [mm] OD	0.375 [9.5]	0.375 [9.5]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	27 [2.51]	27 [2.51]	27 [2.51]	27 [2.51]
Rows / FPI [FPcm]	2 / 22 [9]	2 / 22 [9]	2 / 20 [8]	2 / 20 [8]
Indoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	13.5 [1.25]	13.5 [1.25]	13.5 [1.25]	13.5 [1.25]
Rows / FPI [FPcm]	3 / 18 [7]	3 / 18 [7]	4 / 15 [6]	4 / 15 [6]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]
Outdoor Fan—Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	2/24 [609.6]	2/24 [609.6]	2/24 [609.6]	2/24 [609.6]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	8000 [3775]	8000 [3775]	8000 [3775]	8000 [3775]
No. Motors/HP	2 at 1/3 HP	2 at 1/3 HP	2 at 1/2 HP	2 at 1/2 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan—Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/15x15 [381x381]	1/15x15 [381x381]	1/15x15 [381x381]	1/15x15 [381x381]
Drive Type/No. Speeds	Belt/Variable	Belt/Variable	Belt/Variable	Belt/Variable
No. Motors	1	1	1	1
Motor HP	3	3	5	5
Motor RPM	1725	1725	1725	1725
Motor Frame Size	56	56	184	184
Filter—Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(No.) Size Recommended in. [mm]	(6)2x18x18 [51x457x457]	(6)2x18x18 [51x457x457]	(6)2x18x18 [51x457x457]	(6)2x18x18 [51x457x457]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	172.8/180.8 [4899/5126]	172.8/180.8 [4899/5126]	159.2/156 [4513/4423]	159.2/156 [4513/4423]
Weights				
Net Weight lbs. [kg]	1120 [508]	1120 [508]	1238 [562]	1238 [562]
Ship Weight lbs. [kg]	1157 [525]	1157 [525]	1275 [578]	1275 [578]

See Page 15 for Notes.

[] Designates Metric Conversions

NOTES:

1. Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. ARI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to $\pm 20\%$ of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on ARI Standard 210/240 or 360.
2. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.
3. Integrated Part Load Value is rated in accordance with ARI Standard 210/240 or 360. Units are rated at 80° F ambient, 80° F entering dry bulb, and 67° F entering wet bulb at ARI rated cfm.
4. Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

SYSTEMS PERFORMANCE—TZCAC SERIES

GROSS SYSTEMS PERFORMANCE DATA—072

		ENTERING INDOOR AIR @ 80°F [26.7°C] ①									
wbE		71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]			
CFM [L/s]		2800 [1321]	2375 [1121]	1800 [850]	2800 [1321]	2375 [1121]	1800 [850]	2800 [1321]	2375 [1121]	1800 [850]	
DR ①		.05	.08	.14	.05	.08	.14	.05	.08	.14	
OUTDOOR DRY BULB TEMPERATURE °F [°C]	75 [23.9]	Total BTUH [kW] Sens BTUH [kW] Power	91.3 [26.8] 51.8 [15.2] 4.1	88.4 [25.9] 44.9 [13.2] 4.0	84.5 [24.8] 36.4 [10.7] 3.9	87.4 [25.6] 67.5 [19.8] 4.0	84.6 [24.8] 59.5 [17.4] 3.9	80.9 [23.7] 49.5 [14.5] 3.8	81.6 [23.9] 76.1 [22.3] 3.9	79.0 [23.2] 67.6 [19.8] 3.9	75.5 [22.1] 56.9 [16.7] 3.8
	80 [26.7]	Total BTUH [kW] Sens BTUH [kW] Power	89.8 [26.3] 51.9 [15.2] 4.4	86.9 [25.5] 45.0 [13.2] 4.3	83.1 [24.4] 36.5 [10.7] 4.2	85.9 [25.2] 67.5 [19.8] 4.3	83.2 [24.4] 59.6 [17.5] 4.2	79.5 [23.3] 49.6 [14.5] 4.2	80.1 [23.5] 76.1 [22.3] 4.3	77.5 [22.7] 67.6 [19.8] 4.2	74.1 [21.7] 56.9 [16.7] 4.1
	85 [29.4]	Total BTUH [kW] Sens BTUH [kW] Power	87.8 [25.7] 51.4 [15.1] 4.7	85.1 [24.9] 44.7 [13.1] 4.7	81.3 [23.8] 36.3 [10.6] 4.6	83.9 [24.6] 67.0 [19.6] 4.7	81.3 [23.8] 59.2 [17.4] 4.6	77.7 [22.8] 49.3 [14.5] 4.5	78.1 [22.9] 75.5 [22.1] 4.6	75.7 [22.2] 67.3 [19.7] 4.5	72.4 [21.2] 56.8 [16.7] 4.4
	90 [32.2]	Total BTUH [kW] Sens BTUH [kW] Power	85.5 [25.1] 50.4 [14.8] 5.1	82.8 [24.3] 43.8 [12.8] 5.0	79.2 [23.2] 35.7 [10.5] 4.9	81.6 [23.9] 66.1 [19.4] 5.0	79.0 [23.2] 58.4 [17.1] 4.9	75.6 [22.2] 48.8 [14.3] 4.8	75.8 [22.2] 74.7 [21.9] 5.0	73.4 [21.5] 66.5 [19.5] 4.9	70.2 [20.6] 56.1 [16.5] 4.8
	95 [35]	Total BTUH [kW] Sens BTUH [kW] Power	82.7 [24.2] 49.0 [14.4] 5.5	80.1 [23.5] 42.6 [12.5] 5.4	76.6 [22.4] 34.7 [10.2] 5.3	78.8 [23.1] 64.7 [19.0] 5.4	76.4 [22.4] 57.3 [16.8] 5.3	73.0 [21.4] 47.8 [14.0] 5.2	73.0 [21.4] 73.0 [21.4] 5.3	70.7 [20.7] 65.3 [19.1] 5.3	67.6 [19.8] 55.2 [16.2] 5.1
	100 [37.8]	Total BTUH [kW] Sens BTUH [kW] Power	79.6 [23.3] 47.2 [13.8] 5.9	77.1 [22.6] 41.1 [12.1] 5.8	73.7 [21.6] 33.4 [9.8] 5.7	75.7 [22.2] 63.0 [18.5] 5.8	73.3 [21.5] 55.7 [16.3] 5.7	70.1 [20.5] 46.6 [13.7] 5.6	69.9 [20.5] 69.9 [20.5] 5.7	67.7 [19.8] 63.7 [18.7] 5.7	64.7 [19.0] 53.8 [15.8] 5.5
	105 [40.6]	Total BTUH [kW] Sens BTUH [kW] Power	76.0 [22.3] 44.9 [13.2] 6.3	73.6 [21.6] 39.0 [11.4] 6.2	70.3 [20.6] 31.7 [9.3] 6.1	72.1 [21.1] 60.6 [17.8] 6.2	69.8 [20.5] 53.6 [15.7] 6.1	66.7 [19.5] 44.8 [13.1] 6.0	66.3 [19.4] 66.3 [19.4] 6.2	64.2 [18.8] 61.7 [18.1] 6.1	61.4 [18.0] 52.2 [15.3] 5.9
	110 [43.3]	Total BTUH [kW] Sens BTUH [kW] Power	71.9 [21.1] 42.0 [12.3] 6.8	69.7 [20.4] 36.6 [10.7] 6.6	66.6 [19.5] 29.7 [8.7] 6.5	68.1 [20.0] 57.8 [16.9] 6.7	65.9 [19.3] 51.1 [15.0] 6.6	63.0 [18.5] 42.8 [12.6] 6.4	62.3 [18.3] 62.3 [18.3] 6.6	60.3 [17.7] 59.2 [17.4] 6.5	57.6 [16.9] 50.1 [14.7] 6.4
	115 [46.1]	Total BTUH [kW] Sens BTUH [kW] Power	67.5 [19.8] 38.8 [11.4] 7.2	65.4 [19.2] 33.7 [9.9] 7.1	62.5 [18.3] 27.3 [8.0] 7.0	63.6 [18.6] 54.5 [16.0] 7.2	61.6 [18.1] 48.3 [14.2] 7.0	58.9 [17.3] 40.4 [11.9] 6.9	57.8 [16.9] 57.8 [16.9] 7.1	56.0 [16.4] 56.0 [16.4] 7.0	53.5 [15.7] 47.8 [14.0] 6.8

GROSS SYSTEMS PERFORMANCE DATA—085

		ENTERING INDOOR AIR @ 80°F [26.7°C] dbE ①									
wbE		71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]			
CFM [L/s]		3600 [1699]	3000 [1416]	2400 [1133]	3600 [1699]	3000 [1416]	2400 [1133]	3600 [1699]	3000 [1416]	2400 [1133]	
DR ①		.05	.08	.11	.05	.08	.11	.05	.08	.11	
OUTDOOR DRY BULB TEMPERATURE °F [°C]	75 [23.9]	Total BTUH [kW] Sens BTUH [kW] Power	103.8 [30.4] 66.1 [19.4] 5.4	100.2 [29.4] 56.9 [16.7] 5.3	96.5 [28.3] 48.2 [14.1] 5.2	99.9 [29.3] 82.0 [24.0] 5.3	96.4 [28.3] 71.5 [21.0] 5.2	92.9 [27.2] 61.7 [18.1] 5.1	94.1 [27.6] 90.6 [26.6] 5.2	90.8 [26.6] 79.6 [23.3] 5.2	87.5 [25.6] 69.2 [20.3] 5.1
	80 [26.7]	Total BTUH [kW] Sens BTUH [kW] Power	102.3 [30.0] 66.3 [19.4] 5.7	98.7 [28.9] 57.0 [16.7] 5.6	95.1 [27.9] 48.4 [14.2] 5.5	98.4 [28.8] 82.0 [24.0] 5.6	94.9 [27.8] 71.5 [21.0] 5.5	91.5 [26.8] 61.7 [18.1] 5.4	92.6 [27.1] 90.6 [26.6] 5.6	89.3 [26.2] 79.6 [23.3] 5.5	86.1 [25.2] 69.3 [20.3] 5.4
	85 [29.4]	Total BTUH [kW] Sens BTUH [kW] Power	100.4 [29.4] 65.8 [19.3] 6.0	96.8 [28.4] 56.6 [16.6] 5.9	93.3 [27.3] 48.1 [14.1] 5.8	96.5 [28.3] 81.6 [23.9] 6.0	93.1 [27.3] 71.2 [20.9] 5.9	89.7 [26.3] 61.5 [18.0] 5.8	90.6 [26.6] 90.1 [26.4] 5.9	87.5 [25.6] 79.3 [23.3] 5.8	84.3 [24.7] 69.0 [20.2] 5.7
	90 [32.2]	Total BTUH [kW] Sens BTUH [kW] Power	98.0 [28.7] 64.7 [19.0] 6.4	94.6 [27.7] 55.8 [16.4] 6.3	91.1 [26.7] 47.4 [13.9] 6.2	94.1 [27.6] 80.6 [23.6] 6.3	90.8 [26.6] 70.4 [20.6] 6.2	87.5 [25.6] 60.8 [17.8] 6.1	88.3 [25.9] 88.3 [25.9] 6.3	85.2 [25.0] 78.5 [23.0] 6.2	82.1 [24.1] 68.4 [20.1] 6.1
	95 [35]	Total BTUH [kW] Sens BTUH [kW] Power	95.3 [27.9] 63.4 [18.6] 6.8	91.9 [26.9] 54.6 [16.0] 6.7	88.6 [26.0] 46.5 [13.6] 6.6	91.4 [26.8] 79.3 [23.3] 6.7	88.1 [25.8] 69.2 [20.3] 6.6	84.9 [24.9] 59.8 [17.5] 6.5	85.5 [25.1] 85.5 [25.1] 6.7	82.5 [24.2] 77.3 [22.7] 6.5	79.5 [23.3] 67.4 [19.8] 6.4
	100 [37.8]	Total BTUH [kW] Sens BTUH [kW] Power	92.1 [27.0] 61.6 [18.1] 7.2	88.8 [26.0] 53.0 [15.5] 7.1	85.6 [25.1] 45.2 [13.3] 6.9	88.2 [25.8] 77.4 [22.7] 7.1	85.1 [24.9] 67.7 [19.9] 7.0	82.0 [24.0] 58.6 [17.2] 6.9	82.3 [24.1] 82.3 [24.1] 7.1	79.5 [23.3] 75.7 [22.2] 6.9	76.6 [22.4] 66.0 [19.4] 6.8
	105 [40.6]	Total BTUH [kW] Sens BTUH [kW] Power	88.5 [25.9] 59.1 [17.3] 7.6	85.4 [25.0] 51.0 [15.0] 7.5	82.2 [24.1] 43.3 [12.7] 7.4	84.6 [24.8] 75.0 [22.0] 7.6	81.6 [23.9] 65.6 [19.2] 7.4	78.6 [23.0] 56.8 [16.7] 7.3	78.7 [23.1] 78.7 [23.1] 7.5	76.0 [22.3] 73.7 [21.6] 7.4	73.2 [21.5] 64.3 [18.9] 7.2
	110 [43.3]	Total BTUH [kW] Sens BTUH [kW] Power	84.4 [24.7] 56.3 [16.5] 8.1	81.5 [23.9] 48.6 [14.3] 7.9	78.5 [23.0] 41.3 [12.1] 7.8	80.5 [23.6] 72.1 [21.1] 8.0	77.7 [22.8] 63.1 [18.5] 7.9	74.9 [22.0] 54.7 [16.0] 7.7	74.7 [21.9] 74.7 [21.9] 7.9	72.1 [21.1] 71.2 [20.9] 7.8	69.5 [20.4] 62.2 [18.2] 7.7
	115 [46.1]	Total BTUH [kW] Sens BTUH [kW] Power	80.0 [23.4] 53.0 [15.5] 8.5	77.2 [22.6] 45.7 [13.4] 8.4	74.4 [21.8] 38.9 [11.4] 8.2	76.1 [22.3] 68.9 [20.2] 8.5	73.4 [21.5] 60.3 [17.7] 8.3	70.7 [20.7] 52.2 [15.3] 8.2	70.2 [20.6] 70.2 [20.6] 8.4	67.8 [19.9] 67.8 [19.9] 8.3	65.3 [19.1] 59.7 [17.5] 8.1

DR —Depression ratio
dbE—Entering air dry bulb
wbE—Entering air wet bulb

Total —Total capacity x 1000 BTUH
Sens —Sensible capacity x 1000 BTUH
Power—KW input

NOTES: ① When the entering air dry bulb is other than 80°F [27°C], adjust the sensible capacity from the table by adding $[1.10 \times \text{CFM} \times (1 - \text{DR}) \times (\text{dbE} - 80)]$.

[] Designates Metric Conversions

SYSTEMS PERFORMANCE—TZCAC SERIES

GROSS SYSTEMS PERFORMANCE DATA—090

		ENTERING INDOOR AIR @ 80°F [26.7°C] dbE ①									
wbE		71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]			
CFM [L/s]		3600 [1699]	2775 [1310]	2440 [1152]	3600 [1699]	2775 [1310]	2440 [1152]	3600 [1699]	2775 [1310]	2440 [1152]	
DR ①		.06	.13	.17	.06	.13	.17	.06	.13	.17	
OUTDOOR DRY BULB TEMPERATURE °F [°C]	75 [23.9]	Total BTUH [kW] Sens BTUH [kW] Power	111.2 [32.6] 68.2 [20.0] 5.8	105.5 [30.9] 54.2 [15.9] 5.6	102.9 [30.2] 48.3 [14.2] 5.6	107.2 [31.4] 84.6 [24.8] 5.7	101.7 [29.8] 68.8 [20.2] 5.6	99.2 [29.1] 62.1 [18.2] 5.5	101.3 [29.7] 93.5 [27.4] 5.7	96.1 [28.2] 76.9 [22.5] 5.5	93.8 [27.5] 69.9 [20.5] 5.4
	80 [26.7]	Total BTUH [kW] Sens BTUH [kW] Power	109.7 [32.1] 68.3 [20.0] 6.1	104.0 [30.5] 54.3 [15.9] 6.0	101.5 [29.7] 48.5 [14.2] 5.9	105.7 [31.0] 84.6 [24.8] 6.0	100.3 [29.4] 68.9 [20.2] 5.9	97.8 [28.7] 62.2 [18.2] 5.8	99.8 [29.2] 93.5 [27.4] 6.0	94.7 [27.8] 77.0 [22.6] 5.8	92.3 [27.1] 69.9 [20.5] 5.8
	85 [29.4]	Total BTUH [kW] Sens BTUH [kW] Power	107.7 [31.6] 67.8 [19.9] 6.5	102.2 [30.0] 54.0 [15.8] 6.3	99.7 [29.2] 48.3 [14.2] 6.2	103.7 [30.4] 84.0 [24.6] 6.4	98.4 [28.8] 68.5 [20.1] 6.2	96.0 [28.1] 61.9 [18.2] 6.2	97.8 [28.7] 92.9 [27.2] 6.3	92.8 [27.2] 76.6 [22.5] 6.2	90.5 [26.5] 69.6 [20.4] 6.1
	90 [32.2]	Total BTUH [kW] Sens BTUH [kW] Power	105.3 [30.9] 66.6 [19.5] 6.8	99.9 [29.3] 53.1 [15.6] 6.7	97.5 [28.6] 47.5 [13.9] 6.6	101.4 [29.7] 83.1 [24.4] 6.8	96.2 [28.2] 67.8 [19.9] 6.6	93.8 [27.5] 61.3 [18.0] 6.5	95.4 [28.0] 91.9 [26.9] 6.7	90.5 [26.5] 75.8 [22.2] 6.5	88.3 [25.9] 69.0 [20.2] 6.4
	95 [35]	Total BTUH [kW] Sens BTUH [kW] Power	102.5 [30.0] 65.1 [19.1] 7.2	97.3 [28.5] 52.0 [15.2] 7.0	94.9 [27.8] 46.5 [13.6] 6.9	98.5 [28.9] 81.5 [23.9] 7.2	93.5 [27.4] 66.6 [19.5] 7.0	91.2 [26.7] 60.2 [17.7] 6.9	92.6 [27.1] 90.4 [26.5] 7.1	87.9 [25.8] 74.7 [21.9] 6.9	85.7 [25.1] 67.9 [19.9] 6.8
	100 [37.8]	Total BTUH [kW] Sens BTUH [kW] Power	99.3 [29.1] 63.2 [18.5] 7.6	94.2 [27.6] 50.4 [14.8] 7.4	91.9 [26.9] 45.1 [13.2] 7.3	95.3 [27.9] 79.6 [23.3] 7.6	90.4 [26.5] 65.0 [19.1] 7.4	88.2 [25.8] 58.8 [17.2] 7.3	89.4 [26.2] 88.4 [25.9] 7.5	84.8 [24.9] 73.0 [21.4] 7.3	82.7 [24.2] 66.4 [19.5] 7.2
	105 [40.6]	Total BTUH [kW] Sens BTUH [kW] Power	95.6 [28.0] 60.6 [17.8] 8.1	90.7 [26.6] 48.3 [14.2] 7.9	88.5 [25.9] 43.2 [12.7] 7.8	91.6 [26.8] 77.0 [22.6] 8.0	86.9 [25.5] 62.9 [18.4] 7.8	84.8 [24.9] 57.0 [16.7] 7.7	85.7 [25.1] 85.7 [25.1] 7.9	81.3 [23.8] 71.0 [20.8] 7.7	79.3 [23.2] 64.6 [18.9] 7.6
	110 [43.3]	Total BTUH [kW] Sens BTUH [kW] Power	91.5 [26.8] 57.6 [16.9] 8.5	86.8 [25.4] 45.9 [13.5] 8.3	84.7 [24.8] 41.0 [12.0] 8.2	87.5 [25.6] 73.9 [21.7] 8.4	83.0 [24.3] 60.4 [17.7] 8.2	81.0 [23.7] 54.7 [16.0] 8.1	81.6 [23.9] 81.6 [23.9] 8.4	77.4 [22.7] 68.5 [20.1] 8.2	75.5 [22.1] 62.4 [18.3] 8.1
	115 [46.1]	Total BTUH [kW] Sens BTUH [kW] Power	87.0 [25.5] 54.1 [15.9] 9.0	82.5 [24.2] 43.0 [12.6] 8.8	80.5 [23.6] 38.4 [11.3] 8.6	83.0 [24.3] 70.5 [20.7] 8.9	78.7 [23.1] 57.6 [16.9] 8.7	76.8 [22.5] 52.2 [15.3] 8.6	77.1 [22.6] 77.1 [22.6] 8.8	73.1 [21.4] 65.7 [19.3] 8.6	71.3 [20.9] 59.9 [17.6] 8.5

GROSS SYSTEMS PERFORMANCE DATA—102

		ENTERING INDOOR AIR @ 80°F [26.7°C] ①									
wbE		71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]			
CFM [L/s]		4100 [1935]	3200 [1510]	2700 [1274]	4100 [1935]	3200 [1510]	2700 [1274]	4100 [1935]	3200 [1510]	2700 [1274]	
DR ①		0	.05	.08	0	.05	.08	0	.05	.08	
OUTDOOR DRY BULB TEMPERATURE °F [°C]	75 [23.9]	Total BTUH [kW] Sens BTUH [kW] Power	113.8 [33.4] 69.9 [20.5] 6.4	108.3 [31.7] 56.3 [16.5] 6.3	105.2 [30.8] 49.3 [14.5] 6.2	110.1 [32.3] 91.3 [26.8] 6.3	104.7 [30.7] 75.3 [22.1] 6.2	101.7 [29.8] 67.0 [19.6] 6.1	105.0 [30.8] 103.1 [30.2] 6.2	99.9 [29.3] 86.0 [25.2] 6.1	97.0 [28.4] 77.0 [22.6] 6.0
	80 [26.7]	Total BTUH [kW] Sens BTUH [kW] Power	113.7 [33.3] 71.7 [21.0] 6.7	108.2 [31.7] 57.9 [17.0] 6.6	105.1 [30.8] 50.8 [14.9] 6.5	110.0 [32.2] 93.1 [27.3] 6.7	104.6 [30.7] 76.9 [22.5] 6.5	101.7 [29.8] 68.6 [20.1] 6.4	104.9 [30.7] 104.9 [30.8] 6.6	99.8 [29.2] 87.6 [25.7] 6.4	96.9 [28.4] 78.5 [23.0] 6.3
	85 [29.4]	Total BTUH [kW] Sens BTUH [kW] Power	112.9 [33.1] 72.6 [21.3] 7.1	107.5 [31.5] 58.8 [17.2] 6.9	104.4 [30.6] 51.6 [15.1] 6.8	109.2 [32.0] 94.0 [27.6] 7.0	103.9 [30.5] 77.8 [22.8] 6.8	101.0 [29.6] 69.4 [20.3] 6.7	104.1 [30.5] 104.1 [30.5] 6.9	99.1 [29.0] 88.5 [25.9] 6.7	96.2 [28.2] 79.4 [23.3] 6.7
	90 [32.2]	Total BTUH [kW] Sens BTUH [kW] Power	111.5 [32.7] 72.9 [21.4] 7.4	106.1 [31.1] 59.0 [17.3] 7.3	103.1 [30.2] 51.9 [15.2] 7.2	107.8 [31.6] 94.2 [27.6] 7.4	102.5 [30.0] 78.0 [22.9] 7.2	99.6 [29.2] 69.6 [20.4] 7.1	102.7 [30.1] 102.7 [30.1] 7.3	97.7 [28.6] 88.7 [26.0] 7.1	94.9 [27.8] 79.6 [23.3] 7.0
	95 [35]	Total BTUH [kW] Sens BTUH [kW] Power	109.4 [32.1] 72.2 [21.2] 7.8	104.1 [30.5] 58.5 [17.2] 7.6	101.1 [29.6] 51.5 [15.1] 7.5	105.7 [31.0] 93.6 [27.4] 7.7	100.5 [29.5] 77.5 [22.7] 7.6	97.7 [28.6] 69.3 [20.3] 7.4	100.6 [29.5] 100.6 [29.5] 7.7	95.7 [28.0] 88.2 [25.9] 7.5	93.0 [27.3] 79.3 [23.3] 7.4
	100 [37.8]	Total BTUH [kW] Sens BTUH [kW] Power	106.6 [31.2] 70.7 [20.7] 8.2	101.4 [29.7] 57.3 [16.8] 8.0	98.6 [28.9] 50.5 [14.8] 7.9	102.9 [30.2] 92.1 [27.0] 8.1	97.9 [28.7] 76.4 [22.4] 8.0	95.1 [27.9] 68.2 [20.0] 7.8	97.8 [28.7] 97.8 [28.7] 8.1	93.0 [27.3] 87.0 [25.5] 7.9	90.4 [26.5] 78.2 [22.9] 7.8
	105 [40.6]	Total BTUH [kW] Sens BTUH [kW] Power	103.2 [30.2] 68.4 [20.1] 8.7	98.1 [28.8] 55.4 [16.2] 8.4	95.4 [28.0] 48.9 [14.3] 8.3	99.4 [29.1] 89.7 [26.3] 8.6	94.6 [27.7] 74.5 [21.8] 8.4	91.9 [26.9] 66.6 [19.5] 8.2	94.3 [27.6] 94.3 [27.6] 8.5	89.8 [26.3] 85.2 [25.0] 8.3	87.2 [25.6] 76.6 [22.5] 8.2
	110 [43.3]	Total BTUH [kW] Sens BTUH [kW] Power	99.0 [29.0] 65.2 [19.1] 9.1	94.2 [27.6] 52.8 [15.5] 8.9	91.5 [26.8] 46.4 [13.6] 8.8	95.3 [27.9] 86.7 [25.4] 9.0	90.7 [26.6] 72.0 [21.1] 8.8	88.1 [25.8] 64.3 [18.9] 8.7	90.2 [26.4] 90.2 [26.4] 8.9	85.8 [25.1] 82.5 [24.2] 8.7	83.4 [24.4] 74.3 [21.8] 8.6
	115 [46.1]	Total BTUH [kW] Sens BTUH [kW] Power	94.2 [27.6] 61.3 [18.0] 9.6	89.6 [26.3] 49.6 [14.5] 9.3	87.1 [25.5] 43.7 [12.8] 9.2	90.5 [26.5] 82.7 [24.2] 9.5	86.1 [25.2] 68.7 [20.1] 9.3	83.7 [24.5] 61.5 [18.0] 9.1	85.4 [25.0] 85.4 [25.0] 9.4	81.3 [23.8] 79.4 [23.3] 9.2	78.9 [23.1] 71.4 [20.9] 9.1

DR —Depression ratio
dbE—Entering air dry bulb
wbE—Entering air wet bulb

Total —Total capacity x 1000 BTUH
Sens —Sensible capacity x 1000 BTUH
Power—KW input

NOTES: ① When the entering air dry bulb is other than 80°F [27°C], adjust the sensible capacity from the table by adding [1.10 x CFM x (1 - DR) x (dbE - 80)].

[] Designates Metric Conversions

SYSTEMS PERFORMANCE—TZCAC SERIES

GROSS SYSTEMS PERFORMANCE DATA—120

		ENTERING INDOOR AIR @ 80°F [26.7°C] dbE ①									
		wbE	71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]		
		CFM [L/s]	4800 [2265]	3750 [1770]	3200 [1510]	4800 [2265]	3750 [1770]	3200 [1510]	4800 [2265]	3750 [1770]	3200 [1510]
		DR ①	0	.03	.07	0	.03	.07	0	.03	.07
OUTDOOR DRY BULB TEMPERATURE °F [°C]	75 [23.9]	Total BTUH [kW] Sens BTUH [kW] Power	149.3 [43.8] 99.7 [29.2] 7.3	142.1 [41.6] 81.0 [23.7] 7.2	138.3 [40.5] 71.9 [21.1] 7.1	139.6 [40.9] 117.9 [34.6] 7.2	132.8 [38.9] 97.5 [28.6] 7.0	129.3 [37.9] 87.6 [25.7] 6.9	130.9 [38.4] 130.9 [38.4] 7.1	124.6 [36.5] 109.7 [32.2] 6.9	121.3 [35.5] 99.1 [29.1] 6.8
	80 [26.7]	Total BTUH [kW] Sens BTUH [kW] Power	147.2 [43.1] 99.2 [29.1] 7.8	140.0 [41.0] 80.5 [23.6] 7.6	136.3 [39.9] 71.5 [21.0] 7.5	137.4 [40.3] 117.1 [34.3] 7.7	130.8 [38.3] 97.0 [28.4] 7.5	127.3 [37.3] 87.1 [25.5] 7.4	128.8 [37.7] 128.8 [37.8] 7.6	122.6 [35.9] 109.3 [32.0] 7.4	119.3 [35.0] 98.7 [28.9] 7.3
	85 [29.4]	Total BTUH [kW] Sens BTUH [kW] Power	144.7 [42.4] 98.0 [28.7] 8.3	137.7 [40.4] 79.7 [23.4] 8.1	134.0 [39.3] 70.8 [20.8] 8.0	135.0 [39.6] 116.2 [34.1] 8.2	128.5 [37.7] 96.3 [28.2] 8.0	125.0 [36.6] 86.4 [25.3] 7.9	126.4 [37.0] 126.4 [37.1] 8.0	120.2 [35.2] 108.4 [31.8] 7.8	117.0 [34.3] 98.0 [28.7] 7.7
	90 [32.2]	Total BTUH [kW] Sens BTUH [kW] Power	142.0 [41.6] 96.8 [28.4] 8.8	135.1 [39.6] 78.7 [23.1] 8.6	131.5 [38.5] 70.0 [20.5] 8.5	132.3 [38.8] 114.9 [33.7] 8.7	125.9 [36.9] 95.2 [27.9] 8.5	122.5 [35.9] 85.5 [25.1] 8.4	123.6 [36.2] 123.6 [36.2] 8.6	117.7 [34.5] 107.5 [31.5] 8.4	114.5 [33.6] 97.2 [28.5] 8.3
	95 [35]	Total BTUH [kW] Sens BTUH [kW] Power	139.0 [40.7] 95.1 [27.9] 9.4	132.3 [38.8] 77.4 [22.7] 9.1	128.8 [37.7] 68.8 [20.2] 9.0	129.3 [37.9] 113.2 [33.2] 9.2	123.0 [36.0] 93.8 [27.5] 9.0	119.7 [35.1] 84.3 [24.7] 8.9	120.7 [35.4] 120.7 [35.4] 9.1	114.8 [33.6] 106.1 [31.1] 8.9	111.8 [32.8] 96.0 [28.1] 8.8
	100 [37.8]	Total BTUH [kW] Sens BTUH [kW] Power	135.8 [39.8] 93.1 [27.3] 9.9	129.2 [37.9] 75.7 [22.2] 9.7	125.7 [36.8] 67.3 [19.7] 9.6	126.0 [36.9] 111.1 [32.6] 9.8	119.9 [35.1] 92.2 [27.0] 9.6	116.7 [34.2] 82.9 [24.3] 9.5	117.4 [34.4] 117.4 [34.4] 9.7	111.7 [32.7] 104.4 [30.6] 9.5	108.7 [31.9] 94.5 [27.7] 9.3
	105 [40.6]	Total BTUH [kW] Sens BTUH [kW] Power	132.2 [38.7] 90.7 [26.6] 10.6	125.8 [36.9] 73.8 [21.6] 10.3	122.5 [35.9] 65.7 [19.3] 10.2	122.5 [35.9] 108.8 [31.9] 10.4	116.5 [34.1] 90.2 [26.4] 10.2	113.4 [33.2] 81.1 [23.8] 10.1	113.8 [33.4] 113.8 [33.4] 10.3	108.3 [31.7] 102.5 [30.0] 10.1	105.4 [30.9] 92.8 [27.2] 9.9
	110 [43.3]	Total BTUH [kW] Sens BTUH [kW] Power	128.4 [37.6] 88.0 [25.8] 11.2	122.2 [35.8] 71.6 [21.0] 10.9	118.9 [34.8] 63.6 [18.6] 10.8	118.7 [34.8] 106.2 [31.1] 11.1	112.9 [33.1] 88.1 [25.8] 10.8	109.9 [32.2] 79.3 [23.3] 10.7	110.0 [32.2] 110.0 [32.2] 11.0	104.7 [30.7] 100.3 [29.4] 10.7	101.9 [29.9] 90.8 [26.6] 10.6
	115 [46.1]	Total BTUH [kW] Sens BTUH [kW] Power	124.3 [36.4] 85.0 [24.9] 11.9	118.3 [34.7] 69.2 [20.3] 11.6	115.1 [33.7] 61.5 [18.0] 11.4	114.6 [33.6] 103.1 [30.2] 11.7	109.0 [31.9] 85.6 [25.1] 11.5	106.1 [31.1] 77.0 [22.6] 11.3	105.9 [31.0] 105.9 [31.0] 11.6	100.8 [29.5] 97.9 [28.7] 11.3	98.1 [28.8] 88.7 [26.0] 11.2

GROSS SYSTEMS PERFORMANCE DATA—150

		ENTERING INDOOR AIR @ 80°F [26.7°C] ①									
		wbE	71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]		
		CFM [L/s]	5800 [2737]	4400 [2077]	3800 [1793]	5800 [2737]	4400 [2077]	3800 [1793]	5800 [2737]	4400 [2077]	3800 [1793]
		DR ①	0	.03	.07	0	.03	.07	0	.03	.07
OUTDOOR DRY BULB TEMPERATURE °F [°C]	75 [23.9]	Total BTUH [kW] Sens BTUH [kW] Power	187.3 [54.9] 122.1 [35.8] 9.3	177.0 [51.9] 96.0 [28.1] 9.1	172.7 [50.6] 85.9 [25.2] 9.0	175.9 [51.6] 146.7 [43.0] 9.3	166.3 [48.7] 118.1 [34.6] 8.8	162.2 [47.5] 106.7 [31.3] 8.7	169.7 [49.7] 168.8 [49.5] 8.8	160.5 [47.0] 137.8 [40.4] 8.6	156.5 [45.9] 125.3 [36.7] 8.5;
	80 [26.7]	Total BTUH [kW] Sens BTUH [kW] Power	184.7 [54.1] 121.4 [35.6] 9.9	174.6 [51.2] 95.6 [28.0] 9.6	170.3 [49.9] 85.5 [25.1] 9.5	173.4 [50.8] 146.1 [42.8] 9.6	163.9 [48.0] 117.7 [34.5] 9.4	159.8 [46.8] 106.4 [31.2] 9.3	167.2 [49.0] 167.2 [49.0] 9.4	158.1 [46.3] 137.4 [40.3] 9.1	154.1 [45.2] 124.9 [36.6] 9.0;
	85 [29.4]	Total BTUH [kW] Sens BTUH [kW] Power	181.9 [53.3] 120.4 [35.3] 10.5	172.0 [50.4] 94.9 [27.8] 10.2	167.7 [49.1] 84.8 [24.9] 10.1	170.5 [50.0] 145.1 [42.5] 10.3	161.2 [47.2] 117.0 [34.3] 10.0	157.2 [46.1] 105.8 [31.0] 9.9	164.4 [48.2] 164.4 [48.2] 10.0	155.4 [45.5] 136.6 [40.0] 9.7	151.5 [44.4] 124.3 [36.4] 9.6;
	90 [32.2]	Total BTUH [kW] Sens BTUH [kW] Power	178.8 [52.4] 119.0 [34.9] 11.2	169.0 [49.5] 93.8 [27.5] 10.9	164.8 [48.3] 83.9 [24.6] 10.8	167.4 [49.1] 143.7 [42.1] 10.9	158.3 [46.4] 116.0 [34.0] 10.6	154.4 [45.3] 105.0 [30.8] 10.5	161.3 [47.3] 161.3 [47.3] 10.7	152.5 [44.7] 135.6 [39.8] 10.4	148.7 [43.6] 123.4 [36.2] 10.3;
	95 [35]	Total BTUH [kW] Sens BTUH [kW] Power	175.4 [51.4] 117.3 [34.4] 11.9	165.8 [48.6] 92.5 [27.1] 11.6	161.7 [47.4] 82.8 [24.3] 11.4	164.1 [48.1] 142.1 [41.7] 11.6	155.1 [45.5] 114.7 [33.6] 11.3	151.2 [44.3] 103.7 [30.4] 11.2	157.9 [46.3] 157.9 [46.3] 11.4	149.3 [43.8] 134.3 [39.4] 11.1	145.6 [42.7] 122.3 [35.9] 10.9;
	100 [37.8]	Total BTUH [kW] Sens BTUH [kW] Power	171.8 [50.3] 115.3 [33.8] 12.6	162.4 [47.6] 91.0 [26.7] 12.3	158.4 [46.4] 81.5 [23.9] 12.1	160.4 [47.0] 140.0 [41.0] 12.4	151.6 [44.4] 113.1 [33.2] 12.0	147.9 [43.3] 102.4 [30.0] 11.9	154.2 [45.2] 154.2 [45.2] 12.1	145.8 [42.7] 132.7 [38.9] 11.8	142.2 [41.7] 120.9 [35.4] 11.6;
	105 [40.6]	Total BTUH [kW] Sens BTUH [kW] Power	167.8 [49.2] 112.9 [33.1] 13.4	158.7 [46.5] 89.2 [26.2] 13.0	154.7 [45.3] 79.8 [23.4] 12.9	156.5 [45.9] 137.6 [40.3] 13.1	147.9 [43.3] 111.2 [32.6] 12.8	144.2 [42.3] 100.7 [29.5] 12.6	150.3 [44.0] 150.3 [44.1] 12.9	142.1 [41.6] 130.9 [38.4] 12.5	138.6 [40.6] 119.3 [35.0] 12.4;
	110 [43.3]	Total BTUH [kW] Sens BTUH [kW] Power	163.6 [47.9] 110.1 [32.3] 14.2	154.7 [45.3] 87.0 [25.5] 13.8	150.9 [44.2] 77.9 [22.8] 13.7	152.2 [44.6] 134.8 [39.5] 14.0	143.9 [42.2] 109.1 [32.0] 13.6	140.4 [41.1] 98.9 [29.0] 13.4	146.1 [42.8] 146.1 [42.8] 13.7	138.1 [40.5] 128.7 [37.7] 13.3	134.7 [39.5] 117.3 [34.4] 13.2;
	115 [46.1]	Total BTUH [kW] Sens BTUH [kW] Power	159.1 [46.6] 107.0 [31.4] 15.1	150.4 [44.1] 84.5 [24.8] 14.7	146.7 [43.0] 75.7 [22.2] 14.5	147.8 [43.3] 131.8 [38.6] 14.8	139.7 [40.9] 106.7 [31.3] 14.4	136.2 [39.9] 96.6 [28.3] 14.2	141.6 [41.5] 141.6 [41.5] 14.5	133.9 [39.2] 126.3 [37.0] 14.1	130.5 [38.2] 115.1 [33.7] 14.0

DR —Depression ratio
dbE—Entering air dry bulb
wbE—Entering air wet bulb

Total —Total capacity x 1000 BTUH
Sens —Sensible capacity x 1000 BTUH
Power—kW input

NOTES: ① When the entering air dry bulb is other than 80°F [27°C], adjust the sensible capacity from the table by adding [1.10 x CFM x (1 - DR) x (dbE - 80)].

[] Designates Metric Conversions

AIRFLOW PERFORMANCE—6 TON [21.1 kW] 072

Air Flow CFM [L/s]		External Static Pressure—Inches of Water [kPa]																											
		0.1 [.02]		0.2 [.05]		0.3 [.07]		0.4 [.10]		0.5 [.12]		0.6 [.15]		0.7 [.17]		0.8 [.20]		0.9 [.22]		1.0 [.25]		1.1 [.27]		1.2 [.30]		1.3 [.32]		1.4 [.35]	
		RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W
1800 [849]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1900 [897]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2000 [944]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2100 [991]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2200 [1038]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2300 [1085]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2400 [1133]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2500 [1180]	805	751	852	826	897	900	940	973	981	1046	1021	1118	1059	1188	1095	1258	1129	1327	1162	1395	1192	1462	1221	1529	1248	1594	1273	1658	—
2600 [1227]	831	813	877	890	922	967	964	1043	1005	1118	1044	1191	1081	1265	1116	1337	1149	1408	1181	1478	1211	1548	1289	1616	1265	1684	—	—	—
2700 [1274]	858	878	904	958	947	1037	989	1115	1029	1192	1067	1268	1103	1344	1137	1418	1170	1492	1201	1565	1230	1637	1257	1708	1282	1778	—	—	—
2800 [1321]	886	947	931	1029	973	1110	1014	1190	1053	1270	1091	1349	1126	1426	1160	1503	1191	1579	1221	1654	1250	1728	1276	1802	—	—	—	—	—

NOTE: L-Drive left of bold line, M-Drive right of bold line.

Drive Package	L					M				
Motor H.P. [W]	1.5 [1118.6]					1.5 [1118.6]				
Blower Sheave	AK66					AK66				
Motor Sheave	1VP-44					1VP-50				
Turns Open	0	1	2	3	4	0	1	2	3	4
RPM	1119	1072	1019	967	915	859	827	785	743	701

- NOTES: 1. Factory sheave settings are shown in bold type.
 2. Do not set motor sheave below minimum turns open shown.
 3. Re-adjustment of sheave required to achieve rated airflow at ARI minimum E.S.P.
 4. Drive data shown is for horizontal airflow with dry coil. Add component resistance to duct resistance to determine total E.S.P.

AIRFLOW CORRECTION FACTORS 6 TON [21.1 kW]

ACTUAL—CFM [L/s]	1800 [849]	2000 [944]	2200 [1038]	2400 [1133]	2600 [1227]	2800 [1277]
TOTAL MBH	0.97	0.96	0.99	1.00	1.01	1.02
SENSIBLE MBH	0.91	0.94	0.97	1.00	1.02	1.05
POWER kW	0.99	0.99	0.99	1.00	1.00	1.01

- NOTES: 1. Multiply correction factor times gross performance data.
 2. Resulting sensible capacity cannot exceed total capacity.

[] Designates Metric Conversions

COMPONENT AIR RESISTANCE, IWC 7.5 TONS [26.4 kW]

Component	Standard Indoor Airflow—CFM [L/s]						Resistance—Inches Water [kPa]					
	1800 [849]	2000 [944]	2200 [1038]	2400 [1133]	2600 [1227]	2800 [1321]	1800 [849]	2000 [944]	2200 [1038]	2400 [1133]	2600 [1227]	2800 [1321]
Wet Coil	0.031 [0.038]	0.036 [0.009]	0.041 [0.001]	0.047 [0.012]	0.051 [0.013]	0.005 [0.014]	0.031 [0.038]	0.036 [0.009]	0.041 [0.001]	0.047 [0.012]	0.051 [0.013]	0.005 [0.014]
Concentric Diffuser RXRN-FA65 or FA75 & Transition RXMC-CE05	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA
Concentric Diffuser RXRN-AA61 or AA71 & Transition RXMC-CE05	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA
Economizer	0.02 [0.005]	0.03 [0.007]	0.04 [0.01]	0.05 [0.012]	0.06 [0.015]	0.07 [0.017]	0.02 [0.005]	0.03 [0.007]	0.04 [0.01]	0.05 [0.012]	0.06 [0.015]	0.07 [0.017]
100% R.A. Damper Open	0.02 [0.005]	0.02 [0.005]	0.03 [0.007]	0.03 [0.007]	0.04 [0.01]	0.04 [0.01]	0.02 [0.005]	0.02 [0.005]	0.03 [0.007]	0.03 [0.007]	0.04 [0.01]	0.04 [0.01]
100% R.A. Damper Open	0.02 [0.005]	0.02 [0.005]	0.03 [0.007]	0.03 [0.007]	0.04 [0.01]	0.04 [0.01]	0.02 [0.005]	0.02 [0.005]	0.03 [0.007]	0.03 [0.007]	0.04 [0.01]	0.04 [0.01]
Horizontal Economizer	0.07 [0.017]	0.07 [0.017]	0.07 [0.017]	0.08 [0.02]	0.08 [0.02]	0.08 [0.02]	0.07 [0.017]	0.07 [0.017]	0.07 [0.017]	0.08 [0.02]	0.08 [0.02]	0.08 [0.02]
100% O.A. Damper Open	0.07 [0.017]	0.07 [0.017]	0.07 [0.017]	0.08 [0.02]	0.08 [0.02]	0.08 [0.02]	0.07 [0.017]	0.07 [0.017]	0.07 [0.017]	0.08 [0.02]	0.08 [0.02]	0.08 [0.02]

NOTE: Add component resistance to duct resistance to determine total external static pressure.
 DNA = Data not Available.

AIRFLOW PERFORMANCE—TZCAC SERIES

AIRFLOW PERFORMANCE—7.5 TON [26.4 kW]

Air Flow CFM [L/s]	Capacity 7.5 Ton [26.4 kW]																			
	External Static Pressure—Inches of Water [kPa]																			
	0.1 [0.02]	0.2 [0.05]	0.3 [0.07]	0.4 [0.10]	0.5 [0.12]	0.6 [0.15]	0.7 [0.17]	0.8 [0.20]	0.9 [0.22]	1.0 [0.25]	1.1 [0.27]	1.2 [0.30]	1.3 [0.32]	1.4 [0.35]	1.5 [0.37]	1.6 [0.40]	1.7 [0.42]	1.8 [0.45]	1.9 [0.47]	2.0 [0.50]
2400 [1133]	—	—	540	580	624	664	704	744	784	824	864	904	944	984	1024	1064	1104	1144	1184	1224
2500 [1180]	—	—	552	592	636	676	716	756	796	836	876	916	956	996	1036	1076	1116	1156	1196	1236
2600 [1227]	—	—	564	604	648	688	728	768	808	848	888	928	968	1008	1048	1088	1128	1168	1208	1248
2700 [1274]	—	—	539	577	614	652	690	728	766	804	842	880	918	956	994	1032	1070	1108	1146	1184
2800 [1321]	—	—	554	593	631	669	707	745	783	821	859	897	935	973	1011	1049	1087	1125	1163	1201
2900 [1369]	—	—	569	608	646	684	722	760	798	836	874	912	950	988	1026	1064	1102	1140	1178	1216
3000 [1416]	546	741	854	899	944	989	1034	1079	1124	1169	1214	1259	1304	1349	1394	1439	1484	1529	1574	1619
3100 [1463]	560	804	940	1000	1060	1120	1180	1240	1300	1360	1420	1480	1540	1600	1660	1720	1780	1840	1900	1960
3200 [1510]	576	816	1011	1080	1159	1238	1317	1396	1475	1554	1633	1712	1791	1870	1949	2028	2107	2186	2265	2344
3300 [1557]	592	832	1037	1116	1195	1274	1353	1432	1511	1590	1669	1748	1827	1906	1985	2064	2143	2222	2301	2380
3400 [1605]	607	1030	1180	1260	1340	1420	1500	1580	1660	1740	1820	1900	1980	2060	2140	2220	2300	2380	2460	2540
3500 [1652]	622	1112	1262	1342	1422	1502	1582	1662	1742	1822	1902	1982	2062	2142	2222	2302	2382	2462	2542	2622
3600 [1699]	638	1202	1352	1432	1512	1592	1672	1752	1832	1912	1992	2072	2152	2232	2312	2392	2472	2552	2632	2712

NOTE: L-Drive left of bold line, M-Drive right of bold line.

Drive Package	L						M					
Motor H.P. [W]	2.0 [1491.4]						3.0 [2237.1]					
Blower Sheave	BK90						BK65					
Motor Sheave	1VP-44						1VP-44					
Turns Open	1	2	3	4	5	6	1	2	3	4	5	6
RPM	869	838	806	774	742	710	1157	1106	1056	1005	954	904

- NOTES: 1. Factory sheave settings are shown in bold print.
 2. Re-adjustment of sheave required to achieve rated airflow at ARI minimum E.S.P.
 3. Do not operate above blower RPM shown as motor overloading will occur.
 4. Do not set motor sheave below one turn open.

AIRFLOW CORRECTION FACTORS 7.5 TON [26.4 kW]

ACTUAL—CFM [L/s]	1800 [849]	2000 [944]	2200 [1038]	2400 [1133]	2600 [1227]	2800 [1277]
TOTAL MBH	0.97	0.96	0.99	1.00	1.01	1.02
SENSIBLE MBH	0.91	0.94	0.97	1.00	1.02	1.05
POWER kW	0.99	0.99	0.99	1.00	1.00	1.01

- NOTES: 1. Multiply correction factor times gross performance data.
 2. Resulting sensible capacity cannot exceed total capacity.

[] Designates Metric Conversions

COMPONENT AIR RESISTANCE, IWC 7.5 TONS [26.4 kW]

Component	Standard Indoor Airflow—CFM [L/s]						Resistance—Inches Water [kPa]					
	1800 [849]	2000 [944]	2200 [1038]	2400 [1133]	2600 [1227]	2800 [1321]	0.031 [0.038]	0.036 [0.009]	0.041 [0.001]	0.047 [0.012]	0.051 [0.013]	0.055 [0.014]
Wet Coil	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA
Concentric Diffuser RXRN-FA65 or FA75 & Transition RXMC-CE05	DNA	DNA	DNA	DNA	DNA	DNA	0.02 [0.005]	0.03 [0.007]	0.04 [0.01]	0.05 [0.012]	0.06 [0.015]	0.07 [0.017]
Concentric Diffuser RXRN-AA61 or AA71 & Transition RXMC-CE05	DNA	DNA	DNA	DNA	DNA	DNA	0.02 [0.005]	0.03 [0.007]	0.04 [0.01]	0.05 [0.012]	0.06 [0.015]	0.07 [0.017]
Economizer	0.02 [0.005]	0.03 [0.007]	0.04 [0.01]	0.05 [0.012]	0.06 [0.015]	0.07 [0.017]	0.02 [0.005]	0.03 [0.007]	0.04 [0.01]	0.05 [0.012]	0.06 [0.015]	0.07 [0.017]
100% R.A. Damper Open	0.02 [0.005]	0.03 [0.007]	0.04 [0.01]	0.05 [0.012]	0.06 [0.015]	0.07 [0.017]	0.02 [0.005]	0.03 [0.007]	0.04 [0.01]	0.05 [0.012]	0.06 [0.015]	0.07 [0.017]
Horizontal Economizer	0.02 [0.005]	0.03 [0.007]	0.04 [0.01]	0.05 [0.012]	0.06 [0.015]	0.07 [0.017]	0.02 [0.005]	0.03 [0.007]	0.04 [0.01]	0.05 [0.012]	0.06 [0.015]	0.07 [0.017]
100% R.A. Damper Open	0.02 [0.005]	0.03 [0.007]	0.04 [0.01]	0.05 [0.012]	0.06 [0.015]	0.07 [0.017]	0.02 [0.005]	0.03 [0.007]	0.04 [0.01]	0.05 [0.012]	0.06 [0.015]	0.07 [0.017]
Horizontal Economizer	0.07 [0.017]	0.07 [0.017]	0.07 [0.017]	0.08 [0.02]	0.08 [0.02]	0.08 [0.02]	0.07 [0.017]	0.07 [0.017]	0.07 [0.017]	0.08 [0.02]	0.08 [0.02]	0.08 [0.02]
100% O.A. Damper Open	0.07 [0.017]	0.07 [0.017]	0.07 [0.017]	0.08 [0.02]	0.08 [0.02]	0.08 [0.02]	0.07 [0.017]	0.07 [0.017]	0.07 [0.017]	0.08 [0.02]	0.08 [0.02]	0.08 [0.02]

NOTE: Add component resistance to duct resistance to determine total external static pressure.
 DNA = Data not Available.

AIRFLOW PERFORMANCE—8.5 TON [29.9 kW]

Air Flow CFM [L/s]	Capacity 8.5 Ton [29.9 kW]																			
	External Static Pressure—Inches of Water [kPa]																			
	0.1 [1.02]	0.2 [1.05]	0.3 [1.07]	0.4 [1.10]	0.5 [1.12]	0.6 [1.15]	0.7 [1.17]	0.8 [1.20]	0.9 [1.22]	1.0 [1.25]	1.1 [1.27]	1.2 [1.30]	1.3 [1.32]	1.4 [1.35]	1.5 [1.37]	1.6 [1.40]	1.7 [1.42]	1.8 [1.45]	1.9 [1.47]	2.0 [1.50]
2700 [127.4]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2800 [132.1]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2900 [136.9]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3000 [141.6]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3100 [146.3]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3200 [151.0]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3300 [155.7]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3400 [160.5]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3500 [165.2]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3600 [169.9]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3700 [174.6]	672	1361	700	1435	727	1510	755	1584	782	1659	810	1733	837	1808	865	1882	933	1896	953	1956
3800 [179.3]	686	1443	713	1518	741	1592	768	1667	796	1741	823	1816	851	1890	878	1965	940	2003	960	2074
3900 [184.1]	699	1526	727	1601	754	1675	782	1750	809	1824	837	1899	864	1973	927	2015	948	2080	968	2159
4000 [188.8]	713	1609	740	1683	768	1758	795	1832	823	1907	850	1981	878	2056	935	2085	955	2199	975	2312
4100 [193.5]	726	1692	754	1766	781	1841	809	1915	836	1990	864	2064	892	2091	942	2204	963	2318	983	2431

NOTE: L-Drive left of bold line, M-Drive right of bold line.

Drive Package	L		M	
Motor H.P. [W]	2.0 [1491.4]		3.0 [2237.1]	
Blower Sheave	BK90		BK65	
Motor Sheave	1VP-44		1VP-44	
Turns Open	1	2	3	4
RPM	860	824	791	757
			723	690
			1098	1049
			999	949
			899	889

- NOTES: 1. Factory sheave settings are shown in bold print.
 2. Re-adjustment of sheave required to achieve rated airflow at ARI minimum E.S.P.
 3. Do not operate above blower RPM shown as motor overloading will occur.
 4. Do not set motor sheave below one turn open.

AIRFLOW CORRECTION FACTORS

8.5 TON [29.9 kW]

ACTUAL—CFM [L/s]	2600 [122.7]	2800 [132.1]	3000 [141.6]	3200 [151.0]	3400 [160.5]	3600 [169.9]	3800 [179.3]	4000 [188.8]	4200 [198.2]
TOTAL MBH	0.96	0.97	0.98	0.99	1.00	1.01	1.02	1.03	1.04
SENSIBLE MBH	0.88	0.91	0.94	0.97	1.00	1.03	1.05	1.07	1.09
POWER kW	0.99	0.99	0.99	1.00	1.00	1.01	1.01	1.02	1.03

- NOTES: 1. Multiply correction factor times gross performance data.
 2. Resulting sensible capacity cannot exceed total capacity.

[] Designates Metric Conversions

COMPONENT AIR RESISTANCE, IWC

8.5 TON [29.9 kW]

Component	Standard Indoor Airflow—CFM [L/s]										Resistance—Inches Water [kPa]									
	2600 [122.7]	2800 [132.1]	3000 [141.6]	3200 [151.0]	3400 [160.4]	3600 [169.9]	3800 [179.3]	4000 [188.8]	4200 [198.2]		2600 [132.1]	2800 [141.6]	3000 [151.0]	3200 [160.4]	3400 [169.9]	3600 [179.3]	3800 [188.8]	4000 [198.2]	4200 [207.6]	
	Wet Coil	0.051 [0.013]	0.055 [0.014]	0.060 [0.015]	0.065 [0.016]	0.071 [0.018]	0.076 [0.019]	0.082 [0.022]	0.087 [0.023]	0.093 [0.023]		0.055 [0.014]	0.060 [0.015]	0.065 [0.016]	0.071 [0.018]	0.076 [0.019]	0.082 [0.022]	0.087 [0.023]	0.093 [0.023]	0.099 [0.023]
Concentric Diffuser RXRN-FA65 or FA75 & Transition RXMC-CD04	0.17 [0.042]	0.20 [0.050]	0.25 [0.062]	0.31 [0.077]	0.37 [0.092]	0.43 [0.107]	0.49 [0.122]	0.55 [0.137]	0.61 [0.152]		0.17 [0.042]	0.20 [0.050]	0.25 [0.062]	0.31 [0.077]	0.37 [0.092]	0.43 [0.107]	0.49 [0.122]	0.55 [0.137]	0.61 [0.152]	
Concentric Diffuser RXRN-AA61 or AA71 & Transition RXMC-CE05	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA		DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	
Economizer	0.06 [0.015]	0.07 [0.017]	0.08 [0.020]	0.09 [0.022]	0.10 [0.025]	0.11 [0.027]	0.12 [0.030]	0.13 [0.033]	0.14 [0.035]		0.06 [0.015]	0.07 [0.017]	0.08 [0.020]	0.09 [0.022]	0.10 [0.025]	0.11 [0.027]	0.12 [0.030]	0.13 [0.033]	0.14 [0.035]	
100% R.A. Damper Open	0.04 [0.009]	0.04 [0.010]	0.05 [0.011]	0.05 [0.012]	0.06 [0.014]	0.06 [0.015]	0.07 [0.017]	0.08 [0.019]	0.09 [0.021]		0.04 [0.009]	0.04 [0.010]	0.05 [0.011]	0.05 [0.012]	0.06 [0.014]	0.06 [0.015]	0.07 [0.017]	0.08 [0.019]	0.09 [0.021]	
Horizontal Economizer	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]		0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	
100% O.A. Damper Open	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]		0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	0.08 [0.020]	

NOTE: Add component resistance to duct resistance to determine total external static pressure.
 DNA = Data not Available.

AIRFLOW PERFORMANCE—TZCAC SERIES

AIRFLOW PERFORMANCE—10 TON [35.2 kW]

Air Flow CFM [L/s]	Capacity 10 Ton [35.2 kW]																						
	External Static Pressure—Inches of Water [kPa]																						
	0.1 [0.02]	0.2 [0.05]	0.3 [0.07]	0.4 [0.10]	0.5 [0.12]	0.6 [0.15]	0.7 [0.17]	0.8 [0.20]	0.9 [0.22]	1.0 [0.25]	1.1 [0.27]	1.2 [0.30]	1.3 [0.32]	1.4 [0.34]	1.5 [0.37]	1.6 [0.40]	1.7 [0.42]	1.8 [0.45]	1.9 [0.47]	2.0 [0.50]	2.1 [0.52]	2.2 [0.55]	2.3 [0.57]
3200 [1510]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3300 [1557]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3400 [1605]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3500 [1652]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3600 [1699]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3700 [1746]	672	1361	2048	2735	3422	4109	4796	5483	6170	6857	7544	8231	8918	9605	10292	10979	11666	12353	13040	13727	14414	15101	
3800 [1793]	866	1443	2130	2817	3504	4191	4878	5565	6252	6939	7626	8313	9000	9687	10374	11061	11748	12435	13122	13809	14496	15183	
3900 [1841]	1060	1526	2213	2900	3587	4274	4961	5648	6335	7022	7709	8396	9083	9770	10457	11144	11831	12518	13205	13892	14579	15266	
4000 [1888]	1254	1620	2307	2994	3681	4368	5055	5742	6429	7116	7803	8490	9177	9864	10551	11238	11925	12612	13299	13986	14673	15360	
4100 [1935]	1448	1714	2401	3088	3775	4462	5149	5836	6523	7210	7897	8584	9271	9958	10645	11332	12019	12706	13393	14080	14767	15454	
4200 [1982]	1642	1808	2495	3182	3869	4556	5243	5930	6617	7304	7991	8678	9365	10052	10739	11426	12113	12800	13487	14174	14861	15548	
4300 [2029]	1836	1857	2544	3231	3918	4605	5292	5979	6666	7353	8040	8727	9414	10101	10788	11475	12162	12849	13536	14223	14910	15597	
4400 [2077]	2030	1951	2638	3325	4012	4699	5386	6073	6760	7447	8134	8821	9508	10195	10882	11569	12256	12943	13630	14317	15004	15691	
4500 [2124]	2224	2045	2732	3419	4106	4793	5480	6167	6854	7541	8228	8915	9602	10289	10976	11663	12350	13037	13724	14411	15098	15785	
4600 [2171]	2418	2139	2826	3513	4200	4887	5574	6261	6948	7635	8322	9009	9696	10383	11070	11757	12444	13131	13818	14505	15192	15879	
4700 [2218]	2612	2233	2920	3607	4294	4981	5668	6355	7042	7729	8416	9103	9790	10477	11164	11851	12538	13225	13912	14599	15286	15973	
4800 [2265]	2806	2427	3114	3801	4488	5175	5862	6549	7236	7923	8610	9297	9984	10671	11358	12045	12732	13419	14106	14793	15480	16167	

NOTE: L-Drive left of bold line, M-Drive right of bold line.

Drive Package	L	M
Motor H.P. [W]	2.0 [1491.4]	3.0 [2237.1]
Blower Sheave	BK90	BK65
Motor Sheave	1VP-44	1VP-44
Turns Open	1 2 3 4 5 6	1 2 3 4 5 6
RPM	845 810 775 739 704 669	1138 1089 992 943 894 845

- NOTES: 1. Factory sheave settings are shown in bold print.
 2. Re-adjustment of sheave required to achieve rated airflow at ARI minimum E.S.P.
 3. Do not operate above blower RPM shown as motor overloading will occur.
 4. Do not set motor sheave below one turn open.

COMPONENT AIR RESISTANCE, IWC 10 TON [35.2 kW]

Component	Standard Indoor Airflow—CFM [L/s]												
	Resistance—Inches Water [kPa]												
	3200 [1510]	3400 [1604]	3600 [1699]	3800 [1793]	4000 [1888]	4200 [1982]	4400 [2076]	4600 [2171]	4800 [2265]				
Wet Coil	0.065 [0.016]	0.071 [0.018]	0.076 [0.019]	0.082 [0.020]	0.087 [0.022]	0.093 [0.023]	0.099 [0.025]	0.105 [0.026]	0.110 [0.027]	—	—	—	—
Concentric Diffuser RXRN-FA65 or FA75 & Transition RXMC-CD04	0.31 [0.077]	0.37 [0.092]	DNA	DNA	DNA	DNA	DNA	DNA	DNA	—	—	—	—
Concentric Diffuser RXRN-AA61 or AA71 & Transition RXMC-CE05	DNA	DNA	0.17 [0.042]	0.18 [0.045]	0.21 [0.052]	0.24 [0.060]	0.27 [0.067]	DNA	DNA	—	—	—	—
Concentric Diffuser RXRN-AA66 or AA76 & Transition RXMC-CF06	DNA	DNA	DNA	DNA	DNA	DNA	DNA	0.31 [0.077]	0.32 [0.080]	—	—	—	—
Economizer 100% R.A. Damper Open	0.09 [0.022]	0.10 [0.025]	0.11 [0.027]	0.12 [0.030]	0.13 [0.032]	0.14 [0.035]	0.15 [0.037]	0.16 [0.040]	0.17 [0.042]	—	—	—	—
Horizontal Economizer 100% R.A. Damper Open	0.05 [0.012]	0.06 [0.014]	0.06 [0.015]	0.07 [0.017]	0.08 [0.020]	0.09 [0.022]	0.09 [0.024]	0.10 [0.025]	0.10 [0.025]	—	—	—	—
Horizontal Economizer 100% O.A. Damper Open	0.11 [0.027]	0.12 [0.030]	0.13 [0.032]	0.15 [0.036]	0.16 [0.040]	0.18 [0.044]	0.19 [0.047]	0.20 [0.050]	0.21 [0.052]	—	—	—	—

NOTE: Add component resistance to duct resistance to determine total external static pressure.
 DNA = Data not Available.

AIRFLOW CORRECTION FACTORS 10 TON [35.2 kW]

ACTUAL—CFM [L/s]	3200 [1510]	3400 [1605]	3600 [1699]	3800 [1793]	4000 [1888]	4200 [1982]	4400 [2077]	4600 [2171]	4800 [2265]
TOTAL MBH	0.96	0.97	0.98	0.99	1.00	1.01	1.02	1.03	1.04
SENSIBLE MBH	0.91	0.93	0.95	0.97	1.00	1.02	1.05	1.07	1.09
POWER kW	0.98	0.98	0.99	1.00	1.00	1.01	1.01	1.01	1.01

- NOTES: 1. Multiply correction factor times gross performance data.
 2. Resulting sensible capacity cannot exceed total capacity.

[] Designates Metric Conversions

AIRFLOW PERFORMANCE—12.5 TON [44 kW]

Air Flow CFM [L/s]		External Static Pressure—Inches of Water [kPa]																																						
		0.1 [0.02]	0.2 [0.05]	0.3 [0.07]	0.4 [0.10]	0.5 [0.12]	0.6 [0.15]	0.7 [0.17]	0.8 [0.20]	0.9 [0.22]	1.0 [0.25]	1.1 [0.27]	1.2 [0.30]	1.3 [0.32]	1.4 [0.35]	1.5 [0.37]	1.6 [0.40]	1.7 [0.42]	1.8 [0.45]	1.9 [0.47]	2.0 [0.50]																			
RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W																			
3800 [1793]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																			
3900 [1840]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																			
4000 [1888]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																			
4100 [1935]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																			
4200 [1982]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																			
4300 [2029]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																			
4400 [2076]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																			
4500 [2123]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																			
4600 [2171]	812	1912	838	2027	865	2142	891	2258	917	2373	942	2488	967	2603	991	2718	1015	2834	1039	2949	1063	3064	1077	2941	1098	3060	1119	3178	1140	3297	1160	3415	1180	3534	1200	3653	1220	3771	1240	3890
4700 [2218]	827	2034	854	2153	880	2272	906	2391	931	2510	956	2630	981	2749	1005	2868	1029	2987	1052	3106	1076	3226	1089	3088	1109	3209	1130	3330	1151	3451	1171	3572	1191	3692	1211	3813	1230	3934	1250	4055
4800 [2265]	842	2163	869	2287	895	2410	920	2533	946	2656	970	2780	995	2903	1019	3026	1043	3149	1066	3273	1079	3119	1100	3243	1121	3366	1141	3489	1162	3612	1182	3735	1202	3858	1221	3981	1241	4104	1260	4227
4900 [2312]	858	2302	884	2429	910	2556	935	2684	960	2811	985	2938	1009	3065	1033	3193	1056	3320	1070	3153	1091	3278	1112	3403	1112	3529	1153	3654	1173	3779	1193	3905	1212	4030	1232	4155	1251	4281	1270	4406
5000 [2359]	874	2449	900	2580	926	2711	951	2843	975	2974	1000	3105	1024	3236	1047	3368	1070	3499	1082	3316	1103	3444	1124	3571	1144	3699	1164	3827	1184	3954	1204	4082	1223	4209	1243	4337	1262	4465	1281	4592
5100 [2407]	890	2604	916	2739	941	2875	966	3010	990	3145	1015	3281	1038	3416	1062	3551	1074	3357	1095	3486	1115	3616	1136	3746	1156	3876	1176	4006	1196	4136	1215	4266	1235	4396	1254	4525	1273	4655	—	—
5200 [2454]	906	2768	932	2907	957	3046	982	3186	1006	3325	1030	3465	1053	3604	1076	3743	1087	3532	1107	3664	1128	3796	1148	3928	1168	4060	1188	4192	1207	4324	1227	4457	1246	4589	1265	4721	1284	4853	—	—
5300 [2501]	923	2940	948	3083	973	3227	997	3370	1021	3514	1045	3657	1068	3800	1079	3579	1100	3713	1120	3848	1140	3982	1160	4117	1180	4251	1200	4385	1219	4520	1239	4654	1258	4789	1276	4923	—	—		
5400 [2548]	939	3121	964	3268	989	3416	1013	3563	1037	3710	1060	3858	1072	3629	1092	3766	1113	3902	1133	4039	1153	4176	1173	4312	1193	4449	1212	4586	1232	4722	1251	4859	1269	4996	—	—	—	—		
5500 [2595]	956	3310	981	3461	1005	3613	1029	3764	1053	3916	1076	4067	1085	3820	1106	3959	1126	4098	1146	4237	1166	4376	1186	4515	1205	4654	1225	4793	1244	4932	—	—	—	—	—	—	—			
5600 [2643]	973	3508	998	3663	1022	3819	1045	3974	1068	4130	1079	3877	1099	4018	1120	4159	1140	4301	1160	4442	1179	4583	1199	4724	1218	4866	1237	5007	—	—	—	—	—	—	—	—	—			
5700 [2690]	990	3714	1014	3873	1038	4033	1062	4192	1072	3936	1093	4080	1113	4223	1134	4367	1153	4510	1173	4654	1193	4797	1212	4941	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
5800 [2737]	1007	3928	1031	4092	1055	4255	1078	4419	1087	4144	1107	4290	1128	4435	1148	4581	1167	4727	1187	4873	1206	5018	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

NOTE: L-Drive left of bold line, M-Drive right of bold line.

Drive Package	L	M
Motor H.P. [W]	3.0 [2237.1]	5.0 [3728.5]
Blower Sheave	BK65	BK65
Motor Sheave	1VP-44	1VM-50
Turns Open	1 2 3 4 5 6	1 2 3 4 5 6
RPM	1135 1087 1038 990 942 894	1178 1126 1074 1022

- NOTES: 1. Factory sheave settings are shown in bold print.
 2. Re-adjustment of sheave required to achieve rated airflow at ARI minimum E.S.P.
 3. Do not operate above blower RPM shown as motor overloading will occur.
 4. Do not set motor sheave below one turn open.

COMPONENT AIR RESISTANCE, IWC 12.5 & 15 TON [44 kW & 52.8 kW]

Component	Standard Indoor Airflow—CFM [L/s]										Resistance—Inches Water [kPa]												
	3800 [1793]	4000 [1888]	4200 [1982]	4400 [2076]	4600 [2171]	4800 [2265]	5000 [2359]	5200 [2454]	5400 [2548]	5600 [2643]	5800 [2737]	3800 [1793]	4000 [1888]	4200 [1982]	4400 [2076]	4600 [2171]	4800 [2265]	5000 [2359]	5200 [2454]	5400 [2548]	5600 [2643]	5800 [2737]	
Wet Coil	0.082 [0.020]	0.087 [0.022]	0.093 [0.023]	0.099 [0.025]	0.105 [0.026]	0.110 [0.027]	0.115 [0.029]	0.120 [0.030]	0.125 [0.031]	0.131 [0.033]	0.136 [0.034]	0.18 [0.045]	0.21 [0.052]	0.24 [0.060]	0.27 [0.067]	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA
Concentric Diffuser RXRW-AA61 or AA71 & Transition RXMC-CE05	0.18 [0.045]	0.21 [0.052]	0.24 [0.060]	0.27 [0.067]	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	
Concentric Diffuser RXRW-AA66 or AA76 & Transition RXMC-CF06	0.12 [0.030]	0.13 [0.032]	0.14 [0.035]	0.15 [0.037]	0.16 [0.040]	0.17 [0.042]	0.18 [0.045]	0.19 [0.047]	0.20 [0.050]	0.21 [0.052]	0.22 [0.055]	0.07 [0.017]	0.08 [0.021]	0.09 [0.024]	0.10 [0.027]	0.11 [0.030]	0.12 [0.033]	0.13 [0.036]	0.14 [0.039]	0.15 [0.042]	0.16 [0.045]	0.17 [0.048]	
Economizer	0.12 [0.030]	0.13 [0.032]	0.14 [0.035]	0.15 [0.037]	0.16 [0.040]	0.17 [0.042]	0.18 [0.045]	0.19 [0.047]	0.20 [0.050]	0.21 [0.052]	0.22 [0.055]	0.07 [0.017]	0.08 [0.021]	0.09 [0.024]	0.10 [0.027]	0.11 [0.030]	0.12 [0.033]	0.13 [0.036]	0.14 [0.039]	0.15 [0.042]	0.16 [0.045]	0.17 [0.048]	
100% R.A. Damper Open	0.03 [0.007]	0.03 [0.007]	0.03 [0.007]	0.03 [0.007]	0.03 [0.007]	0.03 [0.007]	0.03 [0.007]	0.03 [0.007]	0.03 [0.007]	0.03 [0.007]	0.03 [0.007]	0.03 [0.007]	0.03 [0.007]	0.03 [0.007]	0.03 [0.007]	0.03 [0.007]	0.03 [0.007]	0.03 [0.007]	0.03 [0.007]	0.03 [0.007]	0.03 [0.007]	0.03 [0.007]	
Horizontal Economizer	0.15 [0.036]	0.16 [0.040]	0.18 [0.044]	0.19 [0.047]	0.20 [0.050]	0.21 [0.052]	0.22 [0.055]	0.23 [0.058]	0.24 [0.061]	0.25 [0.064]	0.26 [0.067]	0.15 [0.036]	0.16 [0.040]	0.18 [0.044]	0.19 [0.047]	0.20 [0.050]	0.21 [0.052]	0.22 [0.055]	0.23 [0.058]	0.24 [0.061]	0.25 [0.064]	0.26 [0.067]	

NOTE: Add component resistance to duct resistance to determine total external static pressure.
 DNA = Data not Available.

AIRFLOW CORRECTION FACTORS 12.5 & 15 TON [44 kW & 52.8 kW]

ACTUAL—CFM [L/s]	3800 [1793]	4000 [1888]	4200 [1982]	4400 [2076]	4600 [2171]	4800 [2265]	5000 [2359]	5200 [2454]	5400 [2548]	5600 [2643]	5800 [2737]
TOTAL MBH	0.95	0.96	0.97	0.98	0.99	1.00	1.01	1.02	1.03	1.04	1.05
SENSIBLE MBH	0.85	0.88	0.91	0.94	0.97	1.00	1.03	1.05	1.07	1.09	1.11
POWER kW	0.98	0.98	0.99	0.99	1.00	1.00	1.01	1.01	1.02	1.02	1.03

- NOTES: 1. Multiply correction factor times gross performance data.
 2. Resulting sensible capacity cannot exceed total capacity.

[] Designates Metric Conversions

ELECTRICAL DATA — TZCAC- SERIES

ELECTRICAL DATA – TZCAC SERIES							
		072CLBA	072DLBA	085CLBA	085DLBA	090CLBA	090DLBA
Unit Information	Unit Operating Voltage Range	187-253	414-506	187-253	414-506	187-253	414-506
	Volts	208/230	460	208/230	460	208/230	460
	Minimum Circuit Ampacity	37/37	18	42/42	21	43/43	21
	Minimum Overcurrent Protection Device Size	40/40	20	45/45	25	45/45	25
	Maximum Overcurrent Protection Device Size	50/50	25	60/60	30	50/50	25
Compressor Motor	No.	1	1	1	1	2	2
	Volts	200/240	480	200/240	480	200/240	480
	Phase	3	3	3	3	3	3
	RPM	3450	3450	3450	3450	3450	3450
	HP, Compressor 1	5	5	6	6	3 1/4	3 1/4
	Amps (RLA), Comp. 1	22.9/22.9	9.6	23.2/23.2	11.2	13.1/13.1	6.1
	Amps (LRA), Comp. 1	155/155	75	164/164	75	83.1/83.1	41
	HP, Compressor 2	—	—	—	—	3 1/4	3 1/4
	Amps (FLA, each)	—	—	—	—	13.1/13.1	6.1
Amps (LRA, each)	—	—	—	—	83.1/83.1	41	
Condenser Motor	No.	2	2	2	2	2	2
	Volts	208/230	460	208/230	460	208/230	460
	Phase	1	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/3	1/3
	Amps (FLA, each)	2.4/2.4	0.7	1.2/1.2	0.7	1.2/1.2	0.7
	Amps (LRA)	4.7/4.7	2.4	4.7/4.7	2.4	4.7/4.7	2.4
Evaporator Fan	No.	1	1	1	1	1	1
	Volts	208/230	460	208/230	460	208/230	460
	Phase	3	3	3	3	3	3
	HP	1 1/2	1 1/2	2	2	2	2
	Amps (FLA, each)	5.6/5.6	2.8	8/8	4	8/8	4
	Amps (LRA, each)	28.8/28.8	14.4	56/56	28	56/56	28

ELECTRICAL DATA – TZCAC SERIES							
		102CLBA	102DLBA	120CLBA	120DLBA	150CLBA	150DLBA
Unit Information	Unit Operating Voltage Range	187-253	414-506	187-253	414-506	187-253	414-506
	Volts	208/230	460	208/230	460	208/230	460
	Minimum Circuit Ampacity	54/54	26	54/54	28	71/71	36
	Minimum Overcurrent Protection Device Size	55/55	30	55/55	30	75/75	40
	Maximum Overcurrent Protection Device Size	60/60	30	60/60	35	90/90	45
Compressor Motor	No.	2	2	2	2	2	2
	Volts	200/230	460	200/240	480	208/230	460
	Phase	3	3	3	3	3	3
	RPM	3450	3450	3450	3450	3450	3450
	HP, Compressor 1	3 3/4	3 3/4	4 1/4	4 1/4	5 3/4	5 3/4
	Amps (RLA), Comp. 1	16/16	7.1	16/16	9.8	22.4/22.4	10.6
	Amps (LRA), Comp. 1	91/91	46	110/110	52	149/149	75
	HP, Compressor 2	3 3/4	3 3/4	4 1/4	4 1/4	5 1/4	5 1/4
	Amps (FLA, each)	16/16	7.1	16/16	9.8	19/19	9.7
	Amps (LRA, each)	91/91	46	110/110	52	123/123	62
Condenser Motor	No.	2	2	2	2	2	2
	Volts	208/230	460	208/230	460	208/230	460
	Phase	1	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/2	1/2
	Amps (FLA, each)	1.2/1.2	0.7	1.2/1.2	0.7	1.15/1.15	0.75
	Amps (LRA)	4.7/4.7	2.4	4.7/4.7	2.4	5.6/5.6	3.1
Evaporator Fan	No.	1	1	1	1	1	1
	Volts	208/230	460	208/230	460	208/230	460
	Phase	3	3	3	3	3	3
	HP	3	3	3	3	5	5
	Amps (FLA, each)	13/13	7	13/13	7	18.8/18.8	10
	Amps (LRA, each)	74.5/74.5	38.1	74.5/74.5	38.1	82.6/82.6	41.3

UNITS WITH HEATER KITS—TZCAC SERIES

UNITS WITH HEATER KITS (208/240V – 3 PHASE)

Size Unit	Heater Kit Model No. RXJJ-	Heater kW 208/240V	Heater Kit FLA	Minimum Circuit Ampacity	Max. Fuse or Circuit Breaker
072CL	NONE	—	—	37/37	50/50
	CC10C	7.2/9.6	20.0/23.1	37/37	50/50
	CC15C	10.8/14.4	30.0/34.6	45/51	50/60
	CC20C	14.4/19.2	40.0/46.2	57/65	60/70
	CC30C	21.6/28.8	60.0/69.3	82/94	90/100
085CL	NONE	—	—	42/42	60/60
	CC10C	7.2/9.6	20.0/23.1	42/42	60/60
	CC15C	10.8/14.4	30.0/34.6	48/54	60/60
	CC20C	14.4/19.2	40.0/46.2	60/68	60/70
	CC30C	21.6/28.8	60.0/69.3	85/97	90/100
	CC40C	28.8/38.4	80.1/92.4	111/126	125/150

Size Unit	Heater Kit Model No. RXJJ-	Heater kW 208/240V	Heater Kit FLA	Minimum Circuit Ampacity	Max. Fuse or Circuit Breaker
090CL	NONE	—	—	43/43	50/50
	CC10C	7.2/9.6	20.0/23.1	43/43	50/50
	CC15C	10.8/14.4	30.0/34.6	48/54	50/60
	CC20C	14.4/19.2	40.0/46.2	60/68	60/70
	CC30C	21.6/28.8	60.0/69.3	85/97	90/100
	CC40C	28.8/38.4	80.1/92.4	111/126	125/150
120CL	NONE	—	—	54/54	60/60
	CC10C	7.2/9.6	20.0/23.1	54/54	60/60
	CC15C	10.8/14.4	30.0/34.6	54/60	60/60
	CC20C	14.4/19.2	40.0/46.2	67/74	70/80
	CC30C	21.6/28.8	60.0/69.3	92/103	100/110
	CC40C	28.8/38.4	80.1/92.4	117/132	125/150

Size Unit	Heater Kit Model No. RXJJ-	Heater kW 208/240V	Heater Kit FLA	Minimum Circuit Ampacity	Max. Fuse or Circuit Breaker
120CL	NONE	—	—	54/54	60/60
	CC10C	7.2/9.6	20.0/23.1	54/54	60/60
	CC15C	10.8/14.4	30.0/34.6	54/60	60/60
	CC20C	14.4/19.2	40.0/46.2	67/74	70/80
	CC30C	21.6/28.8	60.0/69.3	92/103	100/110
	CC40C	28.8/38.4	80.1/92.4	117/132	125/150
	CC50C	36.1/48.0	100.1/115.5	142/161	150/175
150CL	NONE	—	—	71/71	90/90
	CC10C	7.2/9.6	20.0/23.1	71/71	90/90
	CC15C	10.8/14.4	30.0/34.6	71/71	90/90
	CC20C	14.4/19.2	40.0/46.2	74/82	90/90
	CC30C	21.6/28.8	60.0/69.3	99/111	100/125
	CC40C	28.8/38.4	80.1/92.4	124/139	125/150
	CC50C	36.1/48.0	100.1/115.5	149/168	150/175

UNITS WITH HEATER KITS—TZCAC SERIES

UNITS WITH HEATER KITS (480V – 3 PHASE)

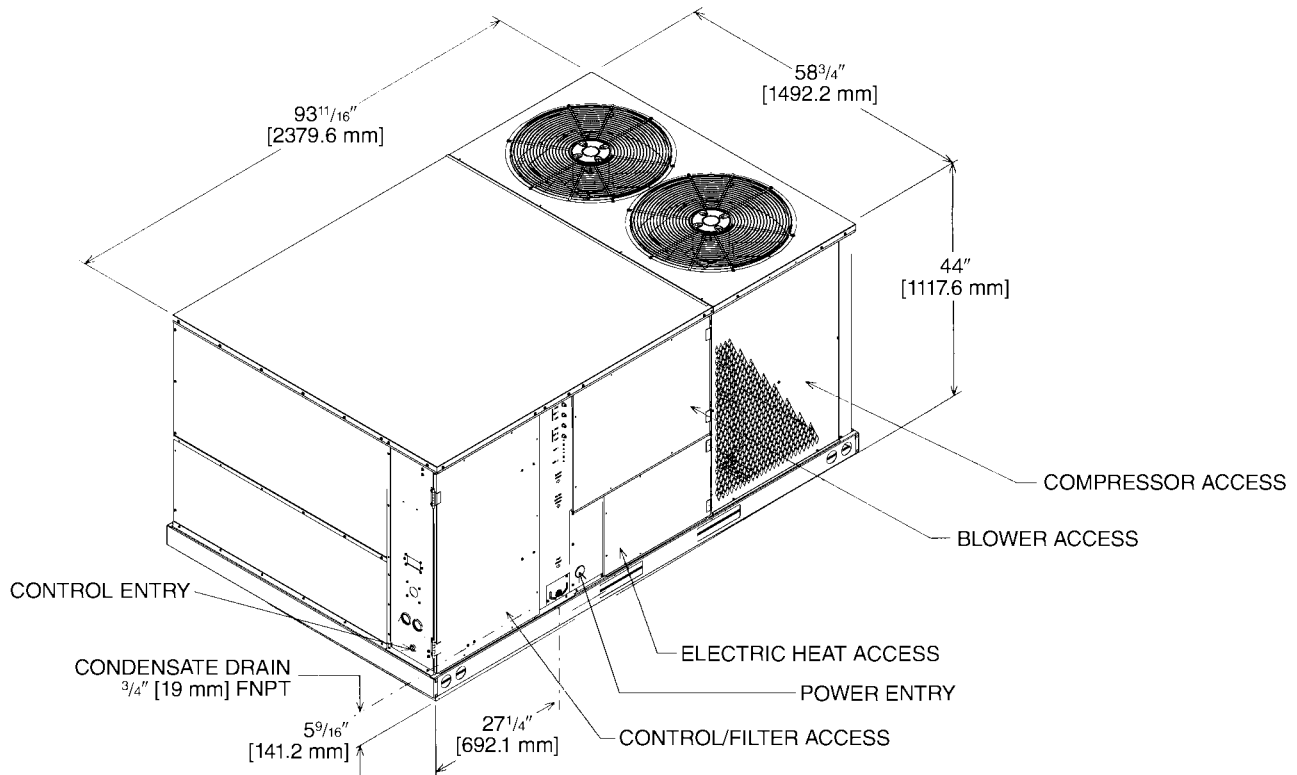
Size Unit	Heater Kit Model No. RXJJ-	Heater kW 480V	Heater Kit FLA	Minimum Circuit Ampacity	Max. Fuse or Circuit Breaker
072DL	NONE	—	—	18	25
	CC10D	9.6	11.5	18	25
	CC15D	14.4	17.3	26	30
	CC20D	19.2	23.1	33	35
	CC30D	28.8	34.6	47	50
085DL	NONE	—	—	21	30
	CC10D	9.6	11.5	21	30
	CC15D	14.4	17.3	27	30
	CC20D	19.2	23.1	34	35
	CC30D	28.8	34.6	49	50
	CC40D	38.4	46.2	63	70

Size Unit	Heater Kit Model No. RXJJ-	Heater kW 480V	Heater Kit FLA	Minimum Circuit Ampacity	Max. Fuse or Circuit Breaker
090DL	NONE	—	—	21	25
	CC10D	9.6	11.5	21	25
	CC15D	14.4	17.3	27	30
	CC20D	19.2	23.1	34	35
	CC30D	28.8	34.6	49	50
	CC40D	38.4	46.2	63	70
102DL	NONE	—	—	26	30
	CC10D	9.6	11.5	26	30
	CC15D	14.4	17.3	31	35
	CC20D	19.2	23.1	38	40
	CC30D	28.8	34.6	52	60
	CC40D	38.4	46.2	67	70

Size Unit	Heater Kit Model No. RXJJ-	Heater kW 480V	Heater Kit FLA	Minimum Circuit Ampacity	Max. Fuse or Circuit Breaker
120DL	NONE	—	—	28	35
	CC10D	9.6	11.5	28	35
	CC15D	14.4	17.3	31	35
	CC20D	19.2	23.1	38	40
	CC30D	28.8	34.6	52	60
	CC40D	38.4	46.2	67	70
	CC50D	48.0	57.7	81	90
150DL	NONE	—	—	36	45
	CC10D	9.6	11.5	36	45
	CC15D	14.4	17.3	36	45
	CC20D	19.2	23.1	42	45
	CC30D	28.8	34.6	56	60
	CC40D	38.4	46.2	71	80
	CC50D	48.0	57.7	85	90

UNIT DIMENSIONS—TZCAC SERIES

PACKAGE AIR CONDITIONER



[] Designates Metric Conversions

UNIT DIMENSIONS—TZCAC SERIES

WEIGHTS

Accessory	Shipping—lbs [kg]	Operating—lbs [kg]
Economizer	90 [40.82]	81 [36.70]
Power Exhaust	44 [19.96]	42 [19.05]
Fresh Air Damper (Manual)	26 [11.79]	21 [9.53]
Fresh Air Damper (Motorized)	43 [19.50]	38 [17.24]
Roof Curb 14"	90 [40.82]	85 [38.60]
Roof Curb 24"	140 [63.50]	135 [61.23]

Capacity Tons [kW]	Corner Weights by Percentage			
	A	B	C	D
6-12.5 [21.1-44.0]	33%	27%	17%	23%

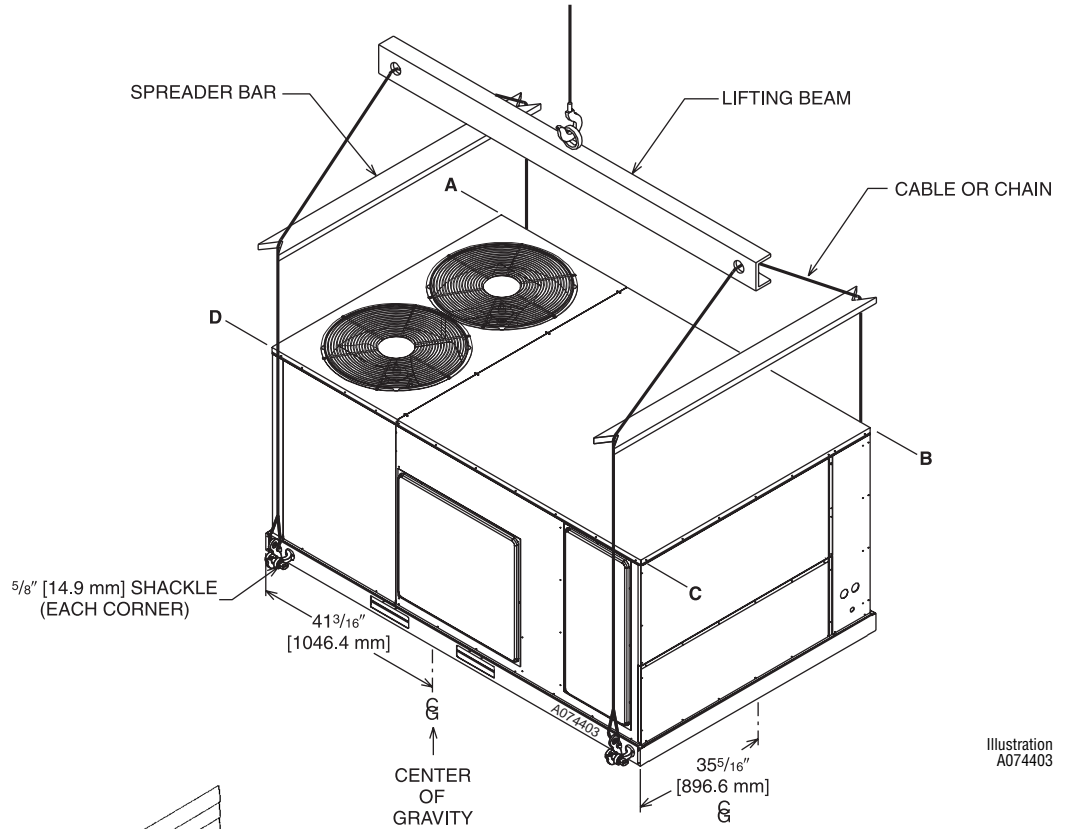


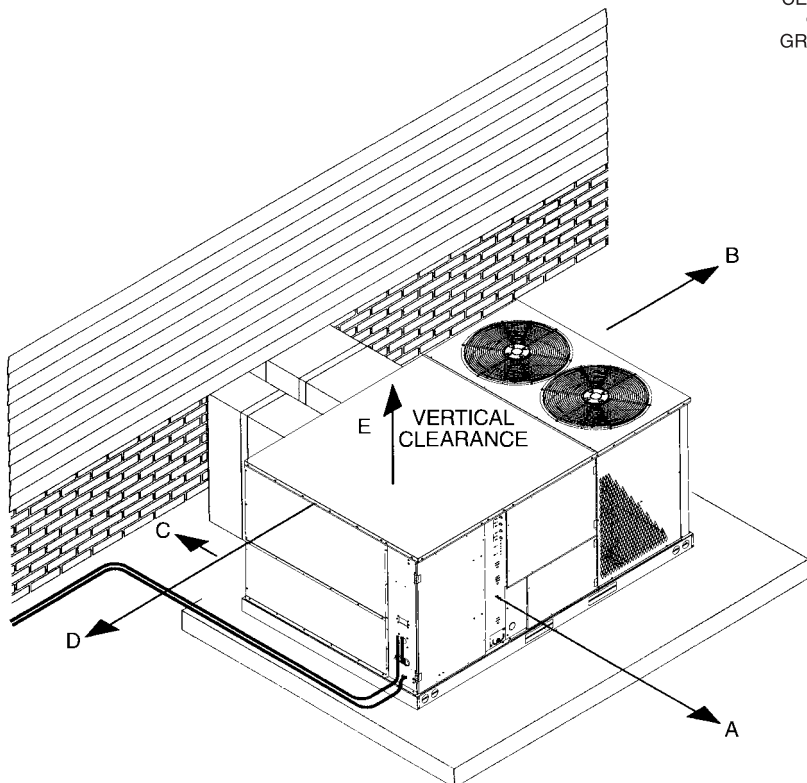
Illustration
A074403

CLEARANCES

The following minimum clearances must be observed for proper unit performance and serviceability.

Recommended Clearance In. [mm]	Location
48 [1219]	A - Front
18 [457]	B - Condenser Coil
18 [457]	C - Duct Side
18 [457]	*D - Evaporator End
60 [1524]	E - Above

*Without Economizer. 48" [1219 mm] With Economizer



[] Designates Metric Conversions

ACCESSORIES

FIELD INSTALLED ACCESSORY EQUIPMENT

Accessory	Model Number	Shipping Weight Lbs. [kg]	Installed Weight Lbs. [kg]	Factory Installation Available?
Electric Heaters*—Canadian Use Only.	RXJJ-CC10 (C,D,Y)	46 [20.9]	36 [16.3]	Yes
	RXJJ-CC15 (C,D,Y)	46 [20.9]	36 [16.3]	Yes
	RXJJ-CC20 (C,D,Y)	46 [20.9]	36 [16.3]	Yes
	RXJJ-CC30 (C,D,Y)	47 [21.3]	37 [16.8]	Yes
	RXJJ-CC31 (C,D)*	47 [21.3]	37 [16.8]	Yes
	RXJJ-CC40 (C,D,Y)	49 [22.2]	39 [17.7]	Yes
	RXJJ-CC41 (C,D)*	49 [22.2]	39 [17.7]	Yes
	RXJJ-CC50 (C,D,Y)	51 [23.1]	41 [18.6]	Yes
RXJJ-CC51 (C,D)*	51 [23.1]	41 [18.6]	Yes	
Economizer w/Single Enthalpy	RXRD-PDCM3	90 [40.8]	81 [36.7]	Yes
Economizer w/Single Enthalpy and Smoke Dectector	RXRD-SDCM3	91 [41.3]	82 [37.2]	Yes
Dual Enthalpy Kit	RXRX-AV02	1 [0.5]	1 [0.5]	No
Horizontal Economizer w/Single Enthalpy	RXRD-RDCM3	94 [42.6]	89 [40.4]	No
Carbon Dioxide Sensor	RXRX-AR02	3 [1.4]	2 [1.0]	No
Power Exhaust	RXRX-BFF02 (C,D,Y)	43 [19.5]	38 [17.2]	No
Manual Fresh Air (Left Panel Mounted)	RXRF-KDA1	38 [17.2]	31 [14.0]	No
Manual Fresh Air (Return Panel)	RXRF-JDA1	26 [11.8]	21 [9.5]	No
Motorized Fresh Air (Return Panel)	RXRF-JDB1	43 [19.5]	21 [9.5]	No
Motor Kit for RXRF-KDA1 (Left Panel Mounted)	RXRX-AW02	35 [15.19]	27 [17.7]	No
Roofcurb, 14"	RXKG-CAE14	90 [40.8]	85 [38.5]	No
Roofcurb, 24"	RXKG-CAE24	140 [63.5]	135 [61.2]	No
Roofcurb Adapters	RXRX-CDCE50	300 [136.1]	290 [131.5]	No
	RXRX-CFCE54	325 [147.4]	315 [142.9]	No
	RXRX-CFCE56	350 [158.8]	340 [154.2]	No
	RXRX-CGCC12	450 [204.1]	410 [186.0]	No
Concentric Diffuser (Step-Down, 18 x 28)	RXRN-AA61	200 [90.7]	185 [83.9]	No
Concentric Diffuser (Step-Down, 18 x 32)	RXRN-AA66	247 [112.0]	227 [103.0]	No
Concentric Diffuser (Flush, 18 x 28)	RXRN-AA71	170 [77.1]	155 [70.3]	No
Concentric Diffuser (Flush, 18 x 32)	RXRN-AA76	176 [79.8]	161 [73.0]	No
Downflow Adapters (Rect. to Round)	RXMC-CD04	15 [6.8]	13 [5.9]	No
Downflow Adapters (Rect. to Rect., 18 x 28)	RXMC-CE05 ①	18 [8.2]	16 [7.3]	No
Downflow Adapters (Rect. to Rect., 18 x 32)	RXMC-CF06 ②	20 [9.1]	18 [8.2]	No
Compressor Time-Delay Relay Kit	RXMD-A04	2 [1.0]	1 [0.5]	No
Low-Ambient Control Kit (1 Per Compressor)	RXRZ-C02	3 [1.4]	2 [1.0]	Yes
Freeze-Stat Kit	RXRX-AM01	1 [0.5]	0.5 [0.2]	Yes
Outdoor Coil Louver Kit	RXRX-AAD01C (6-10 Ton) ④	29 [11.3]	26 [11.8]	Yes
Unwired Convenience Outlet	RXRX-AN01	2 [1.0]	1.5 [0.7]	Yes

NOTES: ① Used with RXRN-AA61 and RXRN-AA71 concentric diffusers.
 ② Used with RXRN-AA66 and RXRN-AA76 concentric diffusers.
 ③ Please refer to conversion kit index provided with the unit for LP conversion kit.
 ④ Standard on 12½ ton

[] Designates Metric Conversions

ECONOMIZER FOR DOWNFLOW DUCT INSTALLATION

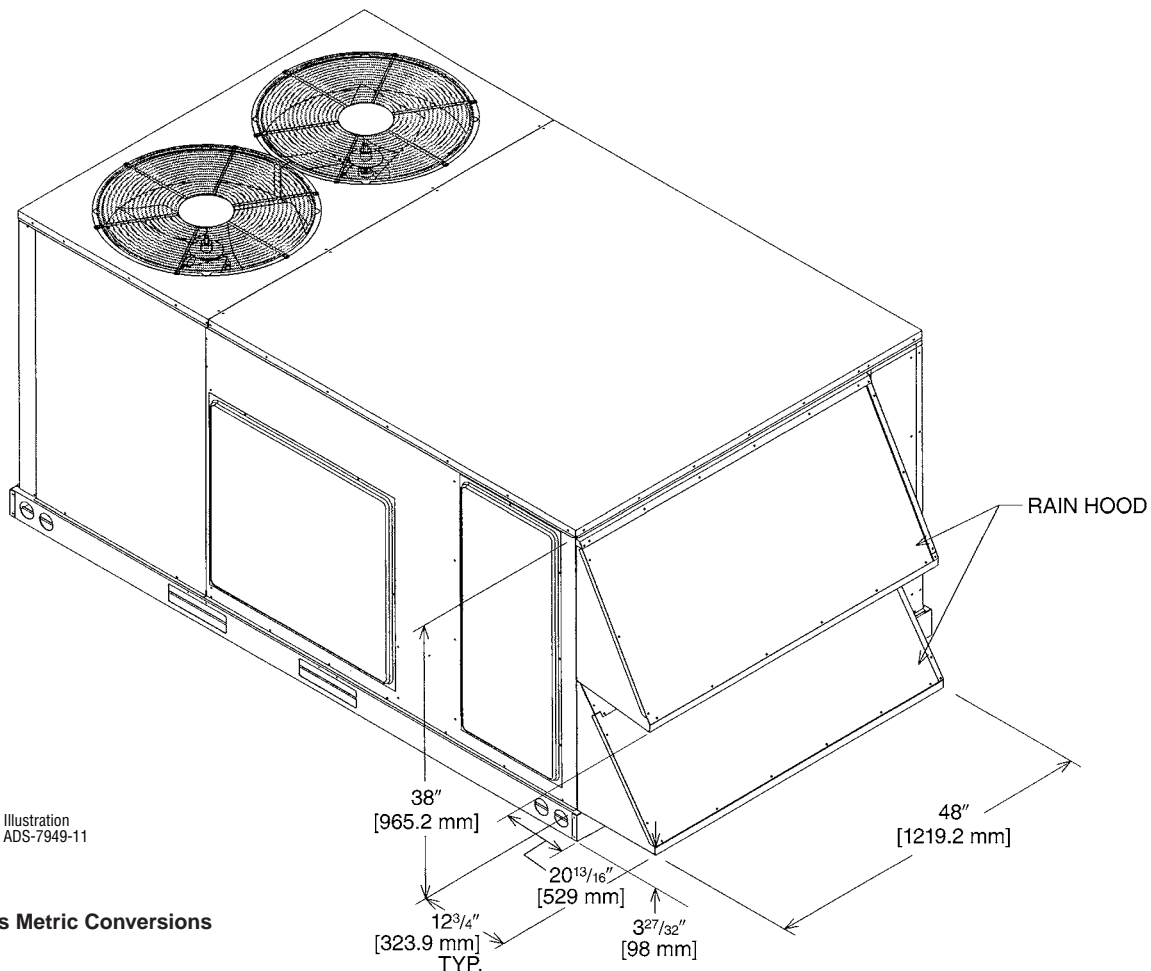
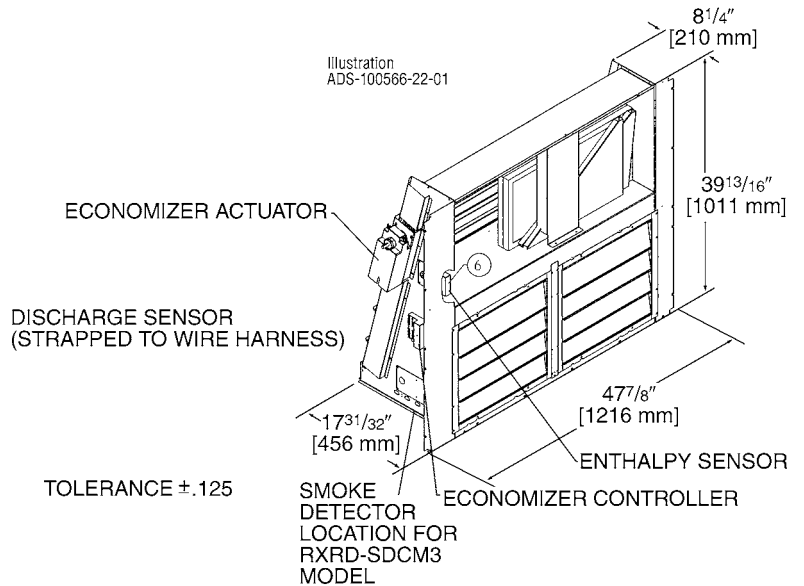
Use to Select Factory Installed Options Only

RXRD-PDCM3—Single Enthalpy (Outdoor) and RXRD-SDCM3 Single Enthalpy with Smoke Detector

RXXR-AV02—Dual Enthalpy Upgrade Kit

RXXR-AR02—Optional Wall-Mounted CO₂ Sensor

- Features **Honeywell** Controls
- Available Factory Installed or Field Accessory
- Gear Driven Direct Drive Actuator
- Fully Modulating (0-100%)
- Low Leakage Dampers
- Slip-In Design for Easy Installation
- Plug-In Polarized 12-pin Electrical Connections
- Pre-Configured—No Field Adjustments Necessary
- Standard Barometric Relief Damper
- Single Enthalpy with Dual Enthalpy Upgrade Kit Available
- CO₂ Input Sensor Available
- Field Assembled Hood Ships with Economizer
- Economizer Ships Complete for Downflow Duct Application.
- Optional Remote Minimum Position Potentiometer (Honeywell #S963B1128) is Available from Prostock.
- Field Installed Power Exhaust Available
- Prewired for Smoke Detector



[] Designates Metric Conversions

ECONOMIZER FOR HORIZONTAL DUCT INSTALLATION

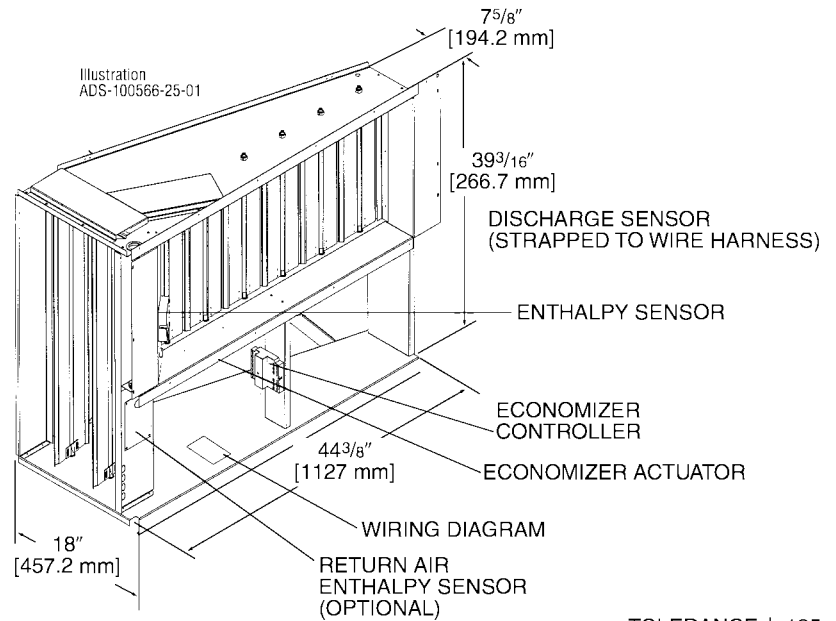
Field Installed Only

RXRD-RDCM3—Single Enthalpy (Outdoor)

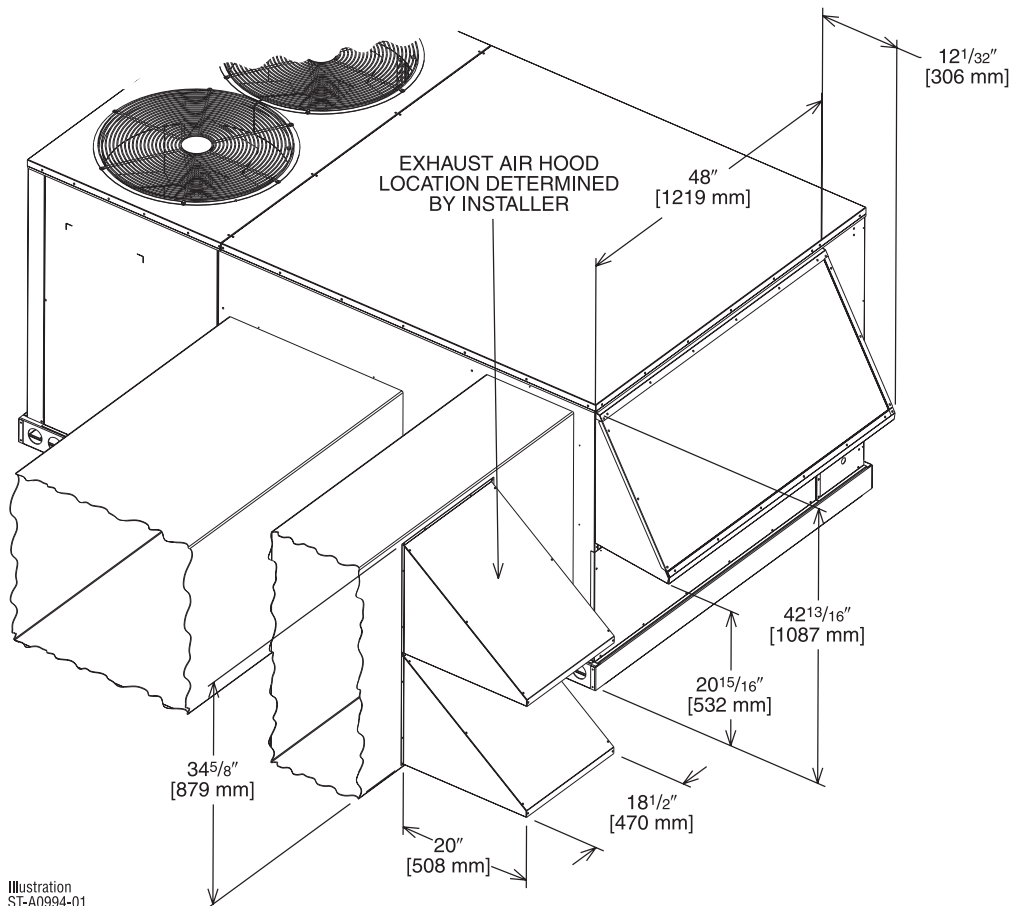
RRRX-AV02—Dual Enthalpy Upgrade Kit

RRRX-AR02—Wall-mounted CO₂ Sensor

- Features **Honeywell** Controls
- Available as a Field Installed Accessory Only
- Gear Driven Direct Drive Actuator
- Fully Modulating (0-100%)
- Low Leakage Dampers
- Slip-In Design for Easy Installation
- Plug-In Polarized 12-pin Electrical Connections
- Pre-Configured—
No Field Adjustments Necessary
- Standard Barometric Relief Damper
- Single Enthalpy with Dual Enthalpy Upgrade Kit Available
- CO₂ Input Sensor Available
- Field Assembled Hood Ships with Economizer
- Economizer Ships Complete for Horizontal Duct Application
- Optional Remote Minimum Position Potentiometer (Honeywell #S963B1128) is Available from Prostock
- Field Installed Power Exhaust Available



TOLERANCE + .125



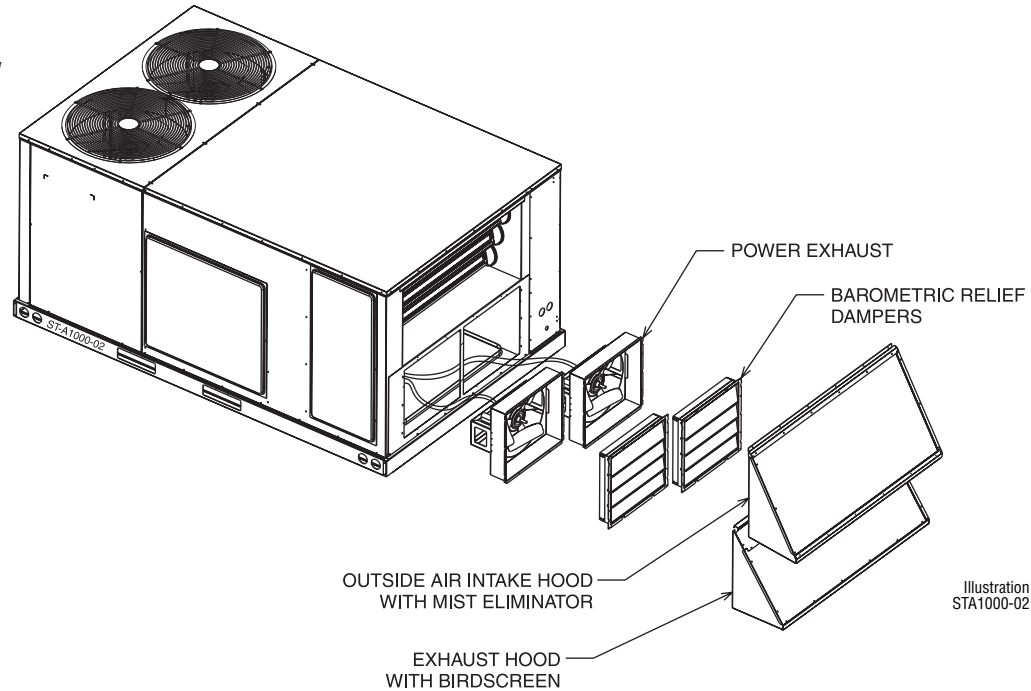
[] Designates Metric Conversions

POWER EXHAUST KIT FOR RXRD-PDCM3(-), RXRD-RDCM3(-), RXRD-SDCM3 ECONOMIZERS

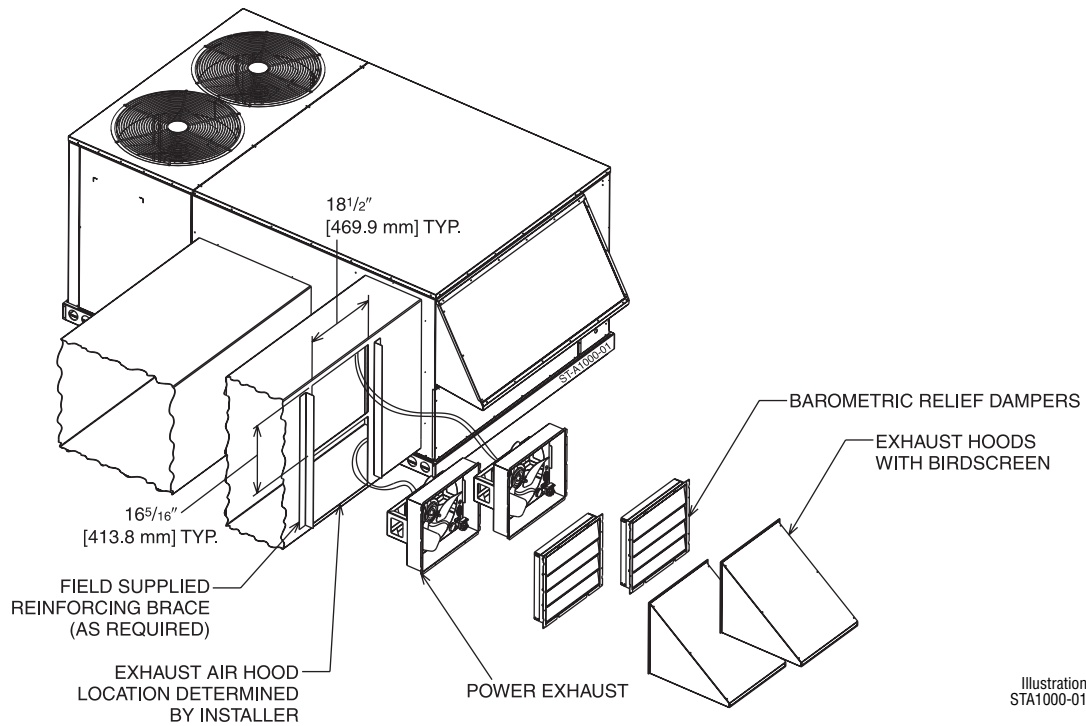
RXXR-BFF02 (C, D, or Y*)

*Voltage Code

VERTICAL AIRFLOW



HORIZONTAL AIRFLOW



Model No.	No. of Fans	Volts	Phase	HP (ea.)	Low Speed		High Speed ①		FLA (ea.)	LRA (ea.)
					CFM [L/s] ②	RPM	CFM [L/s] ②	RPM		
RXXR-BFF02C	2	208-230	1	0.33	2200 [1038]	1518	2500 [1179]	1670	1.48	3.6
RXXR-BFF02D	2	460	1	0.33	2200 [1038]	1518	2500 [1179]	1670	0.75	1.8
RXXR-BFF02Y	2	575	1	0.33	2200 [1038]	1518	2500 [1179]	1670	0.81	1.5

NOTES: ① Power exhaust is factory set on high speed motor tap.

② CFM is per fan at 0" w.c. external static pressure.

ACCESSORIES

FRESH AIR DAMPER

MOTORIZED DAMPER KIT
RXRX-AW02
(Motor Kit for RXRF-KDA1)

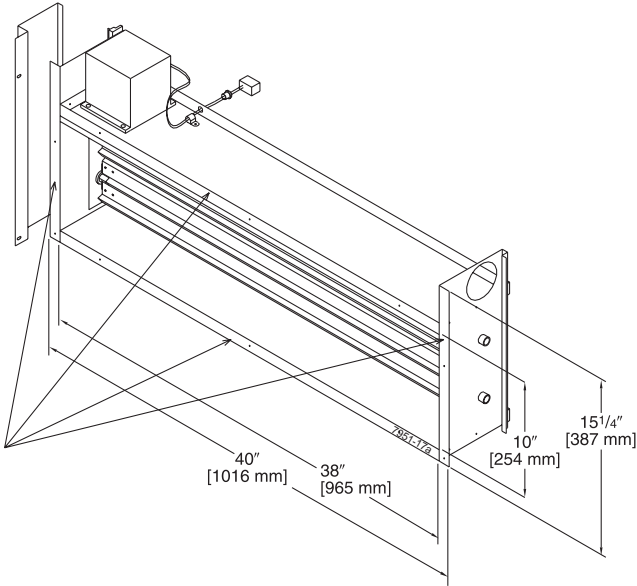


Illustration
ST-7951-17

[] Designates Metric Conversions

RXRF-KDA1 (Manual)
DOWNFLOW OR
HORIZONTAL APPLICATION

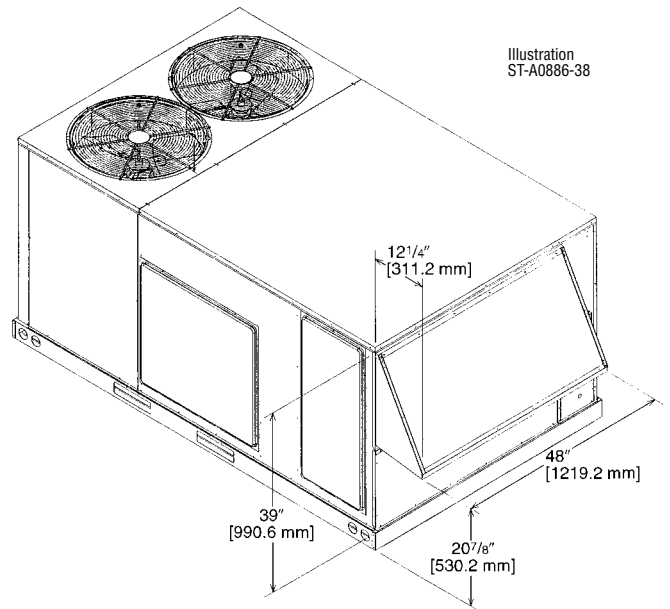


Illustration
ST-A0886-38

ACCESSORIES

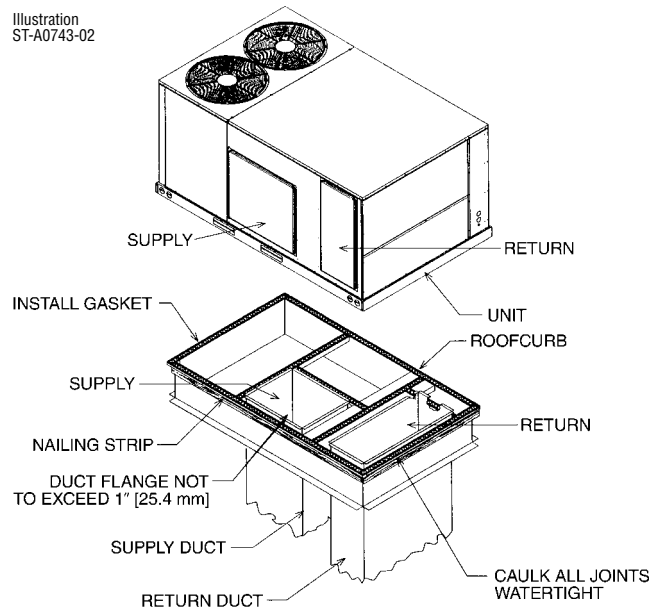
ROOFCURBS (Full Perimeter)

- Thermal Zone's roofcurb design can be utilized on all 6-12.5 ton [21.1-44.0 kW] TZCAC models.
- Two available heights (14" [356 mm] and 24" [610 mm]) for ALL models.
- Quick assembly corners for simple and fast assembly.
- Opening provided in bottom pan to match the "Thru the Curb" electrical connection opening provided on the unit base pan.
- 1" [25 mm] x 4" [102 mm] Nailer provided.
- Insulating panels not required because of insulated outdoor base pan.
- Sealing gasket (40' [12.2 m]) provided with Roofcurb.
- Packaged for easy field assembly.

Roofcurb Model	Height of Curb
RXKG-CAE14	14" [356 mm]
RXKG-CAE24	24" [610 mm]

TYPICAL INSTALLATION

Illustration ST-A0743-02



ROOFCURB INSTALLATION

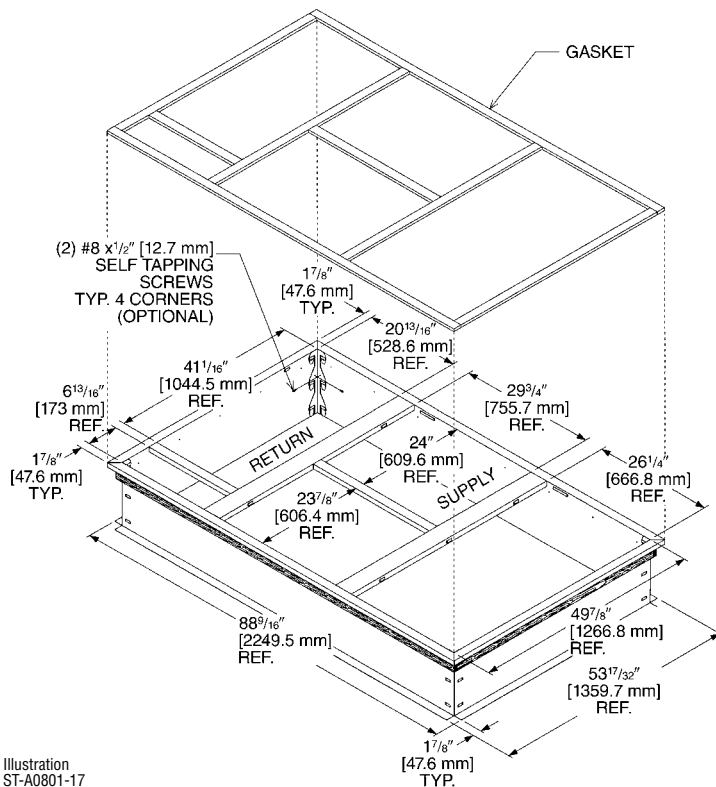
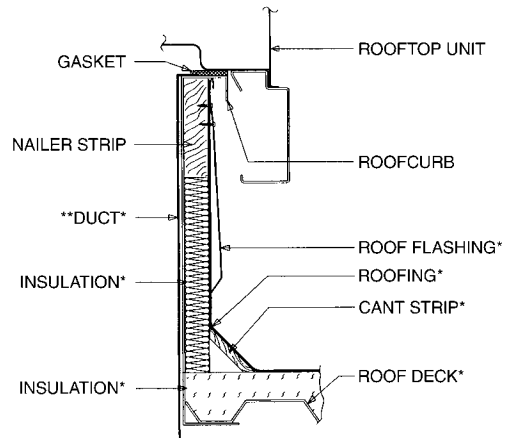


Illustration ST-A0801-17



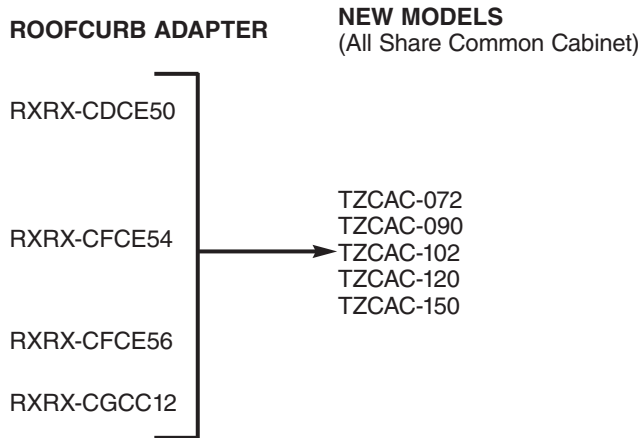
*BY CONTRACTOR

**FOR INSTALLATION OF DUCT AS SHOWN, USE RECOMMENDED DUCT SIZES FROM ROOFCURB INSTALLATION INSTRUCTIONS. FOR DUCT FLANGE ATTACHMENT TO UNIT, SEE UNIT INSTALLATION INSTRUCTIONS FOR RECOMMENDED DUCT SIZES.

Illustration ST-A0743-02

[] Designates Metric Conversions

ROOFCURB ADAPTERS



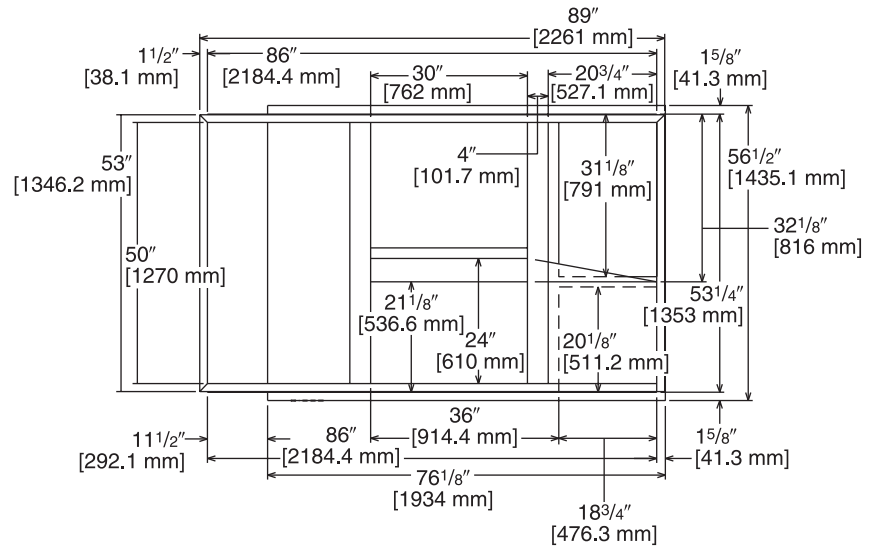
NOTE: Ductwork modifications may be necessary if the capacity and/or indoor airflow rate of replacement unit is not equivalent to that of the unit being replaced.

ACCESSORIES

ROOFCURB ADAPTERS (Cont.)

RXRX-CDCE50

Illustration
ADS-7952-02
Sheet 2



TOP VIEW

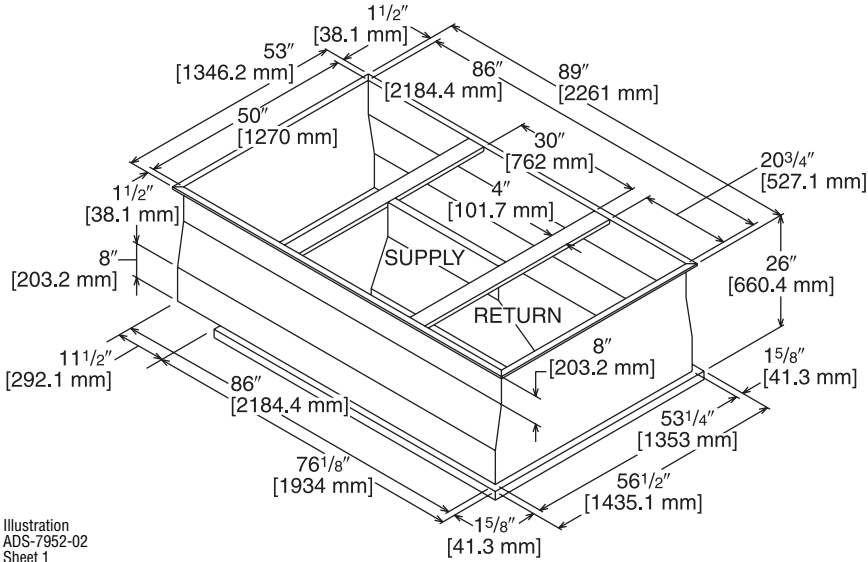


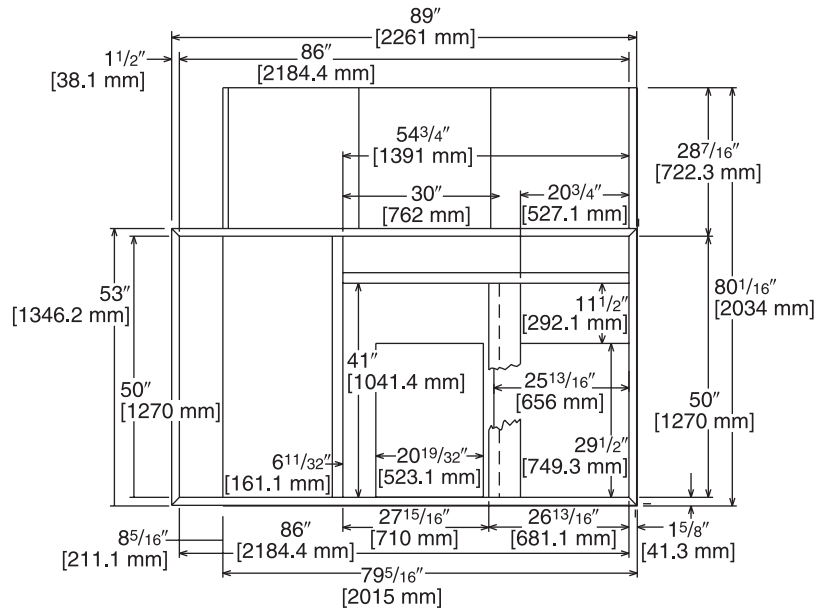
Illustration
ADS-7952-02
Sheet 1

[] Designates Metric Conversions

ROOFCURB ADAPTERS (Cont.)

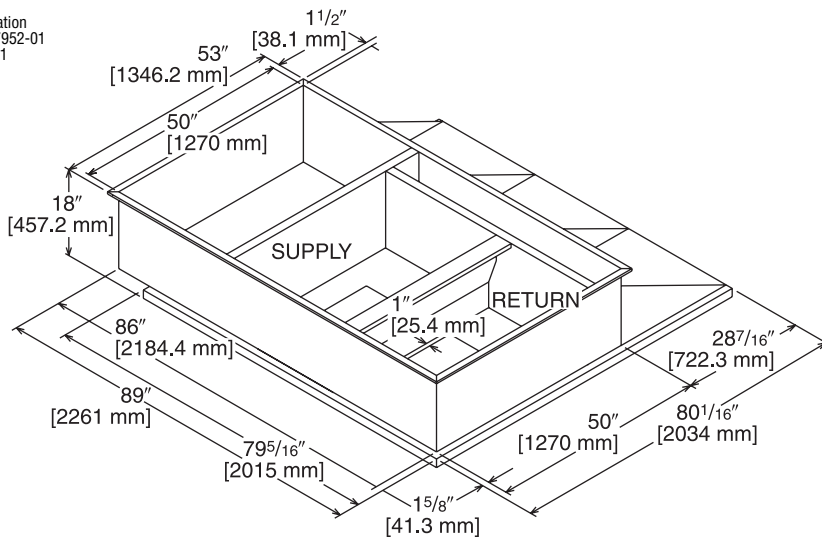
RXXR-CFCE54

Illustration
ADS-7952-01
Sheet 2



TOP VIEW

Illustration
ADS-7952-01
Sheet 1

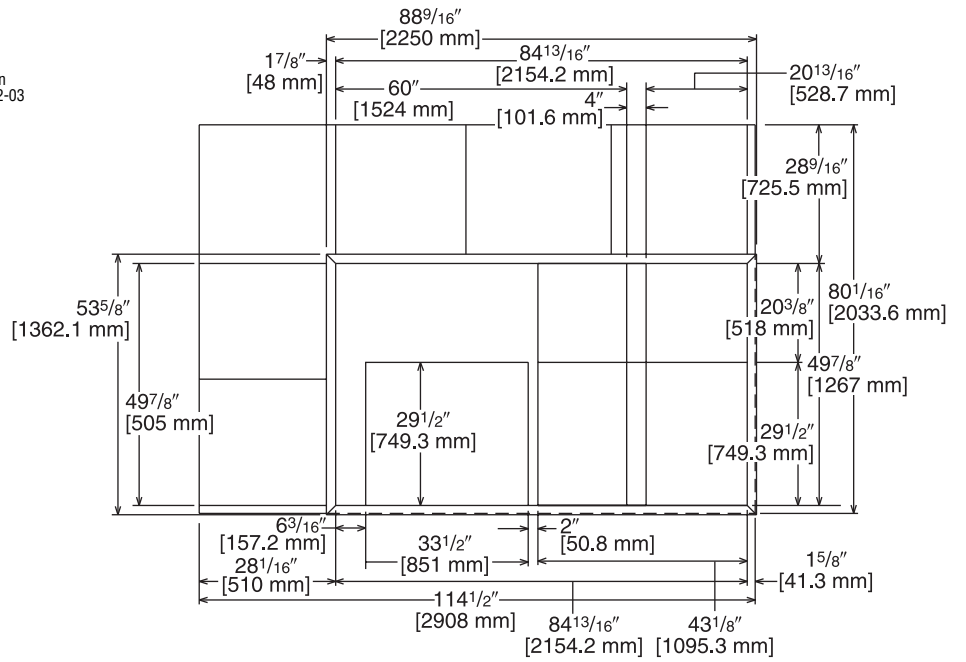


[] Designates Metric Conversions

ROOFCURB ADAPTERS (Cont.)

RXRX-CFCE56

Illustration
ADS-7952-03
Sheet 2



TOP VIEW

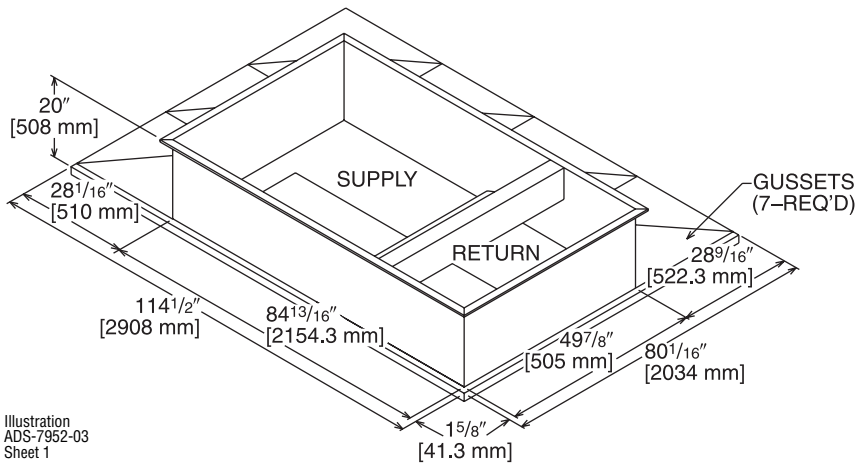


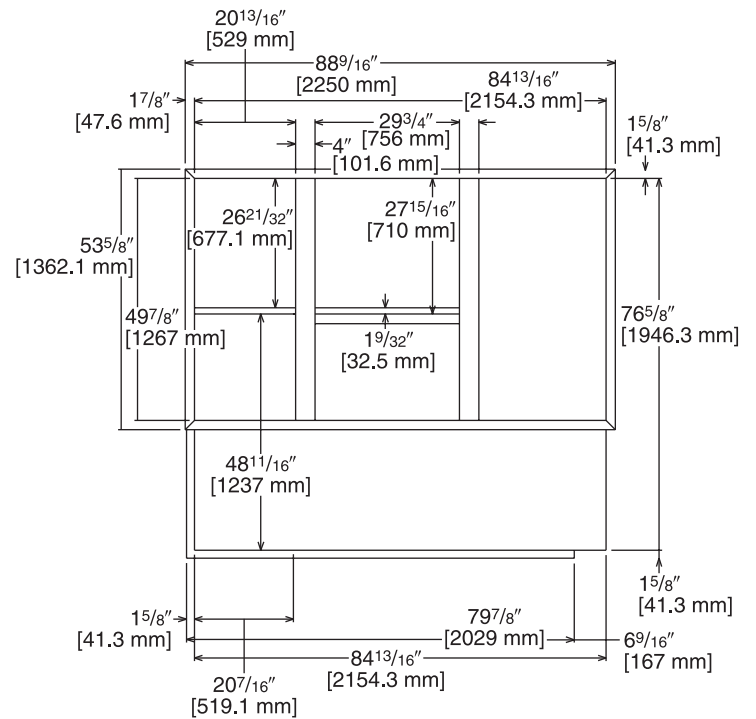
Illustration
ADS-7952-03
Sheet 1

[] Designates Metric Conversions

ROOFCURB ADAPTERS (Cont.)

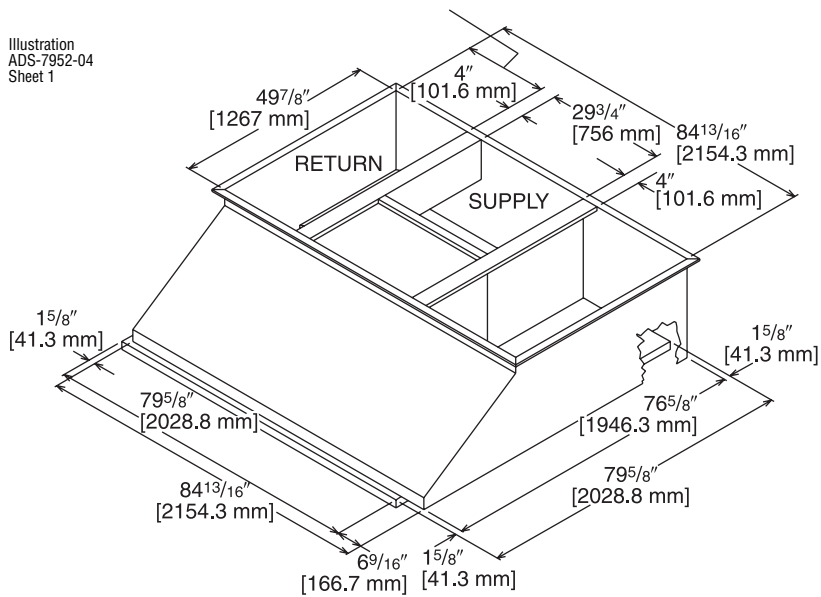
RXRX-CGCC12

Illustration
ADS-7952-04
Sheet 2



TOP VIEW

Illustration
ADS-7952-04
Sheet 1



[] Designates Metric Conversions

CONCENTRIC DIFFUSER APPLICATION

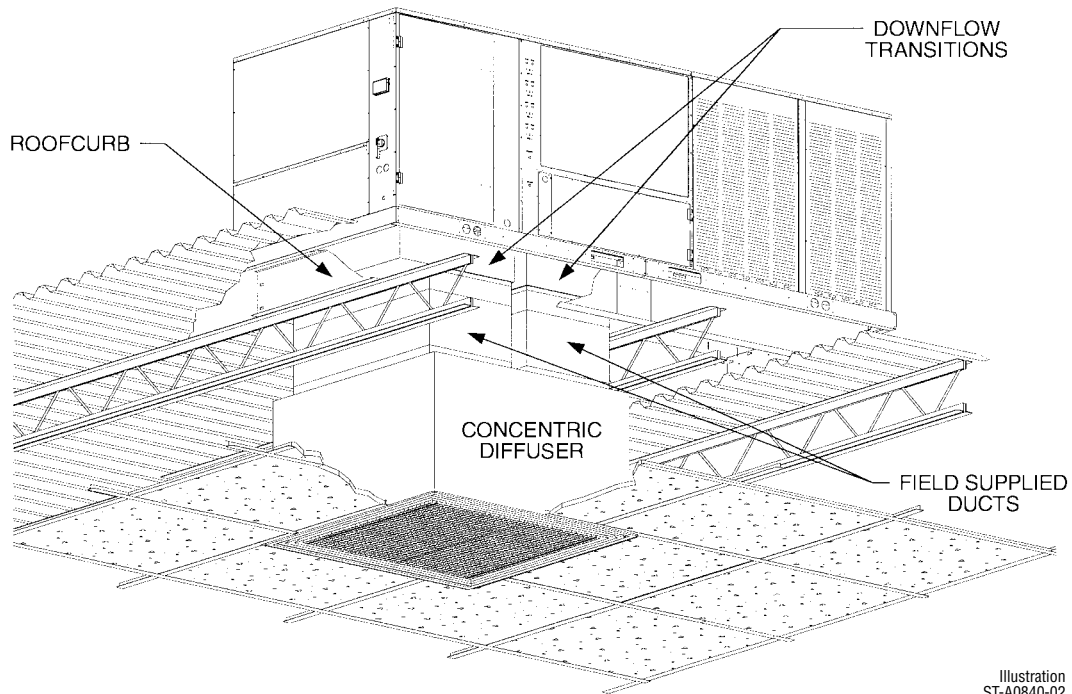


Illustration
ST-A0840-02

DOWNFLOW TRANSITION DRAWINGS

RXMC-CE05

- Used with RXRN-AA61 or RXRN-AA71 Concentric Diffusers.

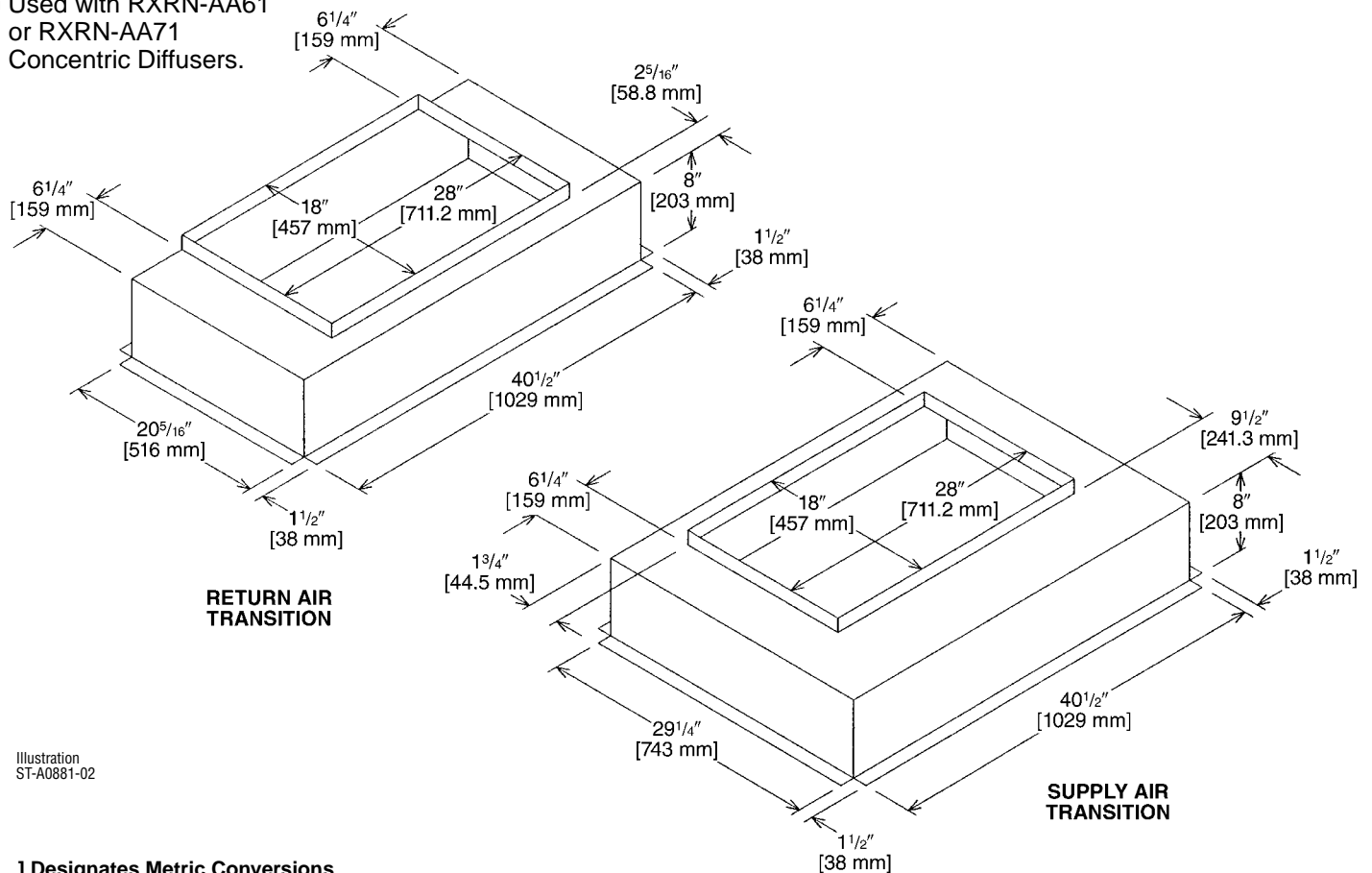


Illustration
ST-A0881-02

[] Designates Metric Conversions

DOWNFLOW TRANSITION DRAWINGS (Cont.)

RXMC-CF06

- Used with RXRN-AA66 or RXRN-AA76 Concentric Diffusers.

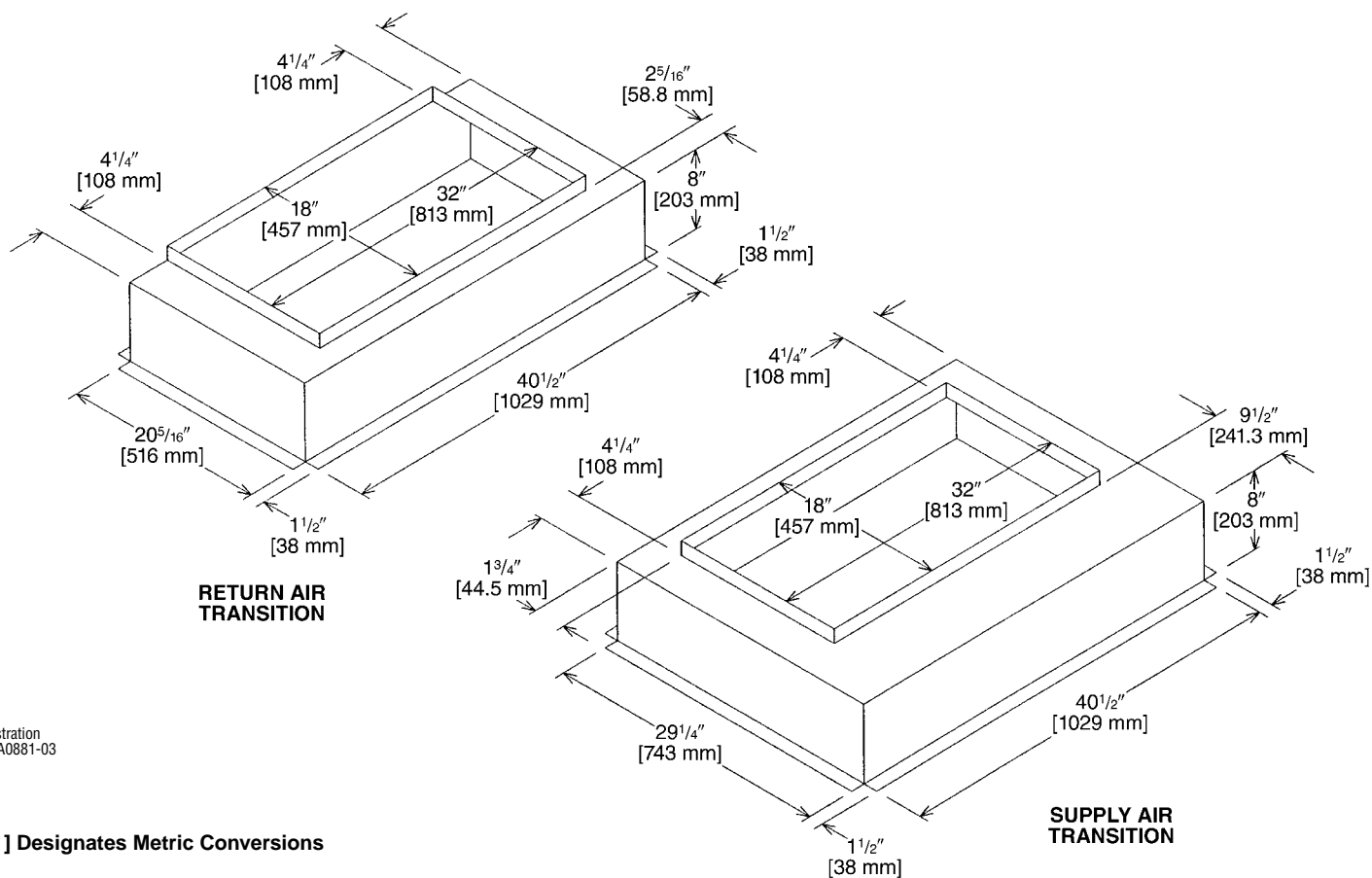


Illustration
ST-A0881-03

[] Designates Metric Conversions

DOWNFLOW TRANSITION DRAWINGS (Cont.)

RXMC-CD04

- Used with RXRN-FA65 or RXRN-FA75 Concentric Diffusers.

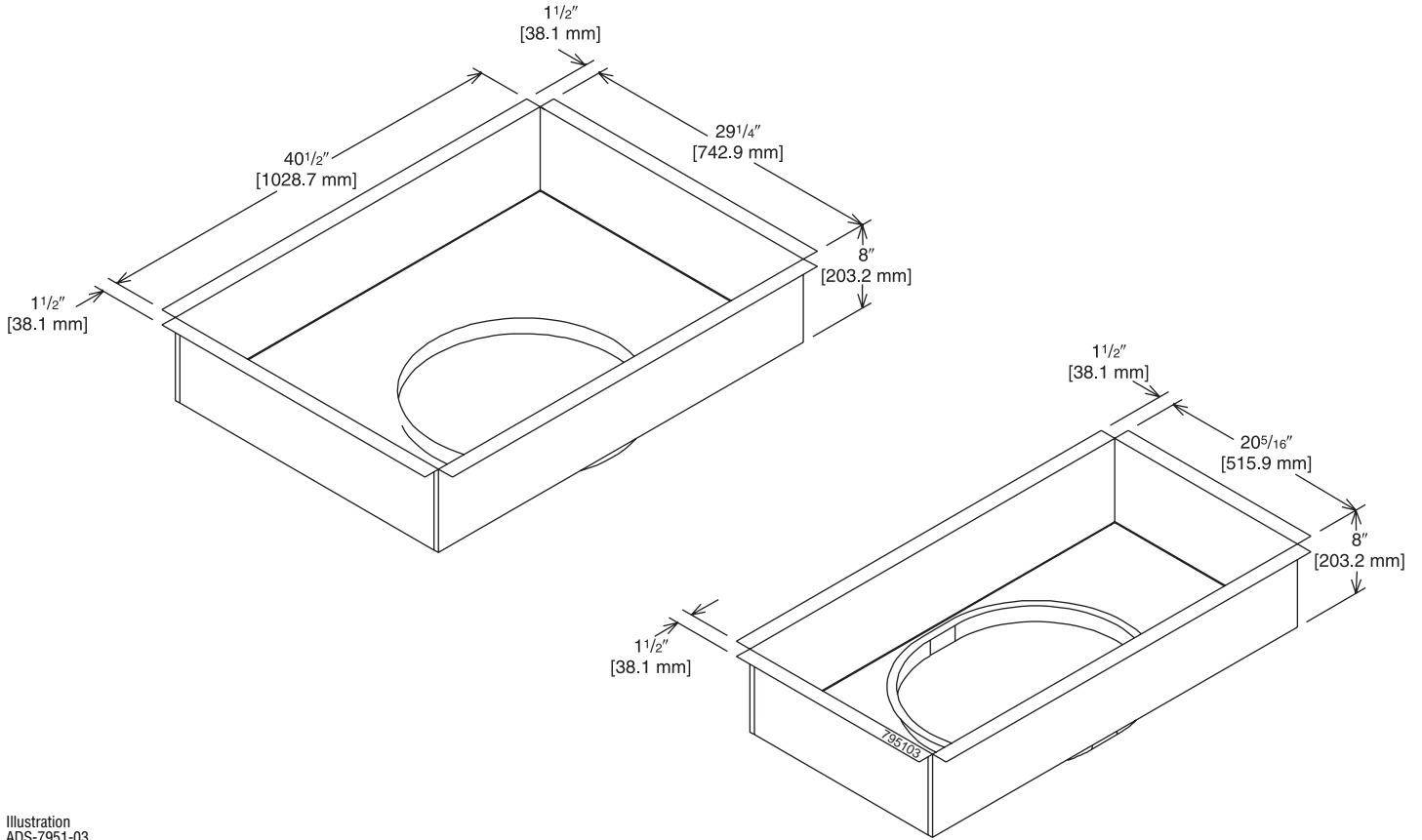


Illustration
ADS-7951-03

[] Designates Metric Conversions

CONCENTRIC DIFFUSER—STEP DOWN

RXRN-FA65 (7.5 & 8.5 Ton [26.4 & 29.9 kW] Models)

For Use With Downflow Transition (RXMC-CD04) and 20" [508 mm] Round Supply and Return Ducts

- All aluminum diffuser with aluminum return air eggcrate.
- Built-in anti-sweat gasket.
- Molded fiberglass supports.
- Built-in hanging supports.
- Diffuser box constructed of sheetmetal insulated with 1" [25.4 mm] 1.5 lbs. [.7 kg] duct liner.

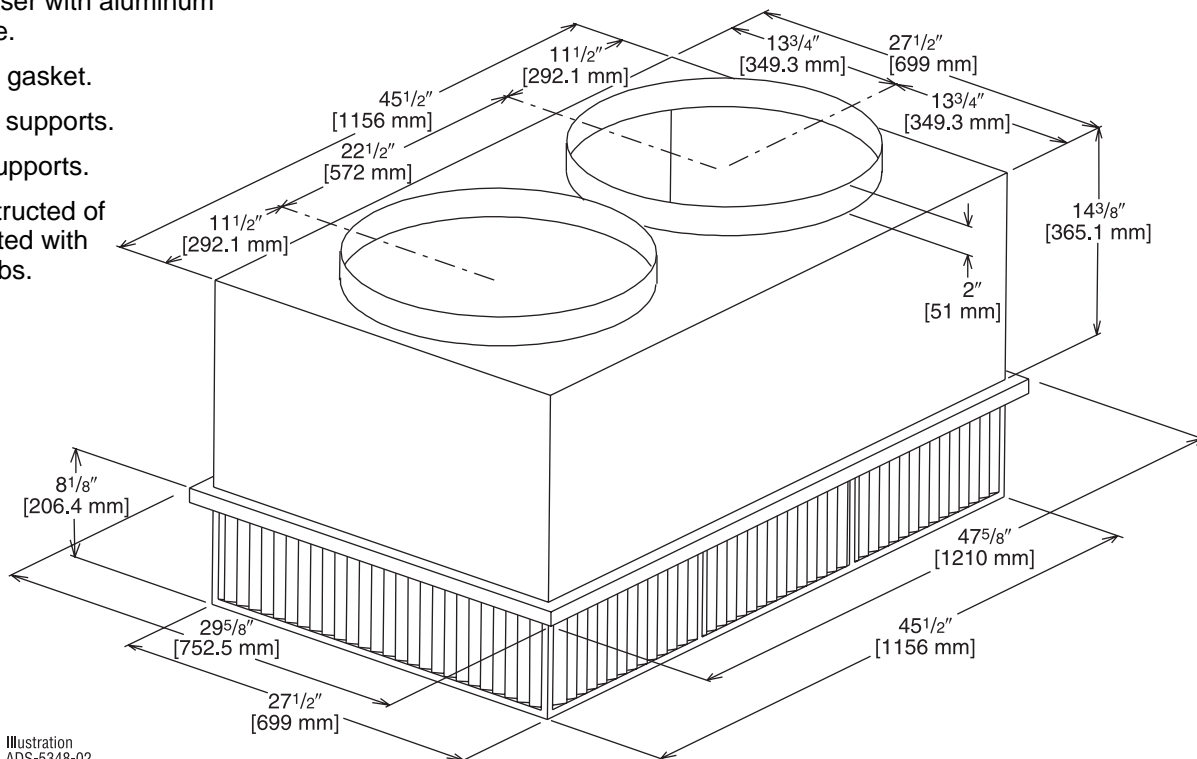


Illustration
ADS-5348-02

ENGINEERING DATA^①

Model No.	Flow Rate CFM [L/s]	Static Pressure in. w.c. [kPa]	Throw ^{②③} Feet [m]	Neck Velocity fpm [m/s]	Noise Level ^④ (dba)
RXRN-FA65	2600 [1227]	0.17 [0.042]	24-29 [7.3-8.8]	669 [3.4]	20
	2800 [1321]	0.20 [0.050]	25-30 [7.6-9.1]	720 [3.7]	25
	3000 [1416]	0.25 [0.062]	27-33 [8.2-10.1]	772 [3.9]	25
	3200 [1510]	0.31 [0.077]	28-35 [8.5-10.7]	823 [4.2]	25
	3400 [1604]	0.37 [0.092]	30-37 [9.1-11.3]	874 [4.4]	30

NOTES: ① All data is based on the air diffusion council guidelines.

② Throw data is based on 75 FPM Terminal Velocities using isothermal air.

③ Throw is based on diffuser blades being directed in a straight pattern.

④ Actual noise levels may vary due to duct design and do not include transmitted unit noise. Adequate duct attenuation must be provided to reduce sound output from the unit.

[] Designates Metric Conversions

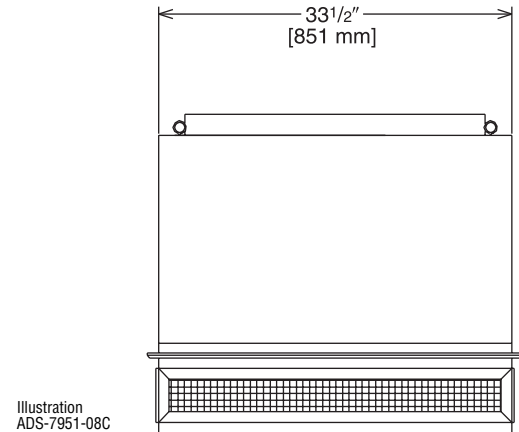
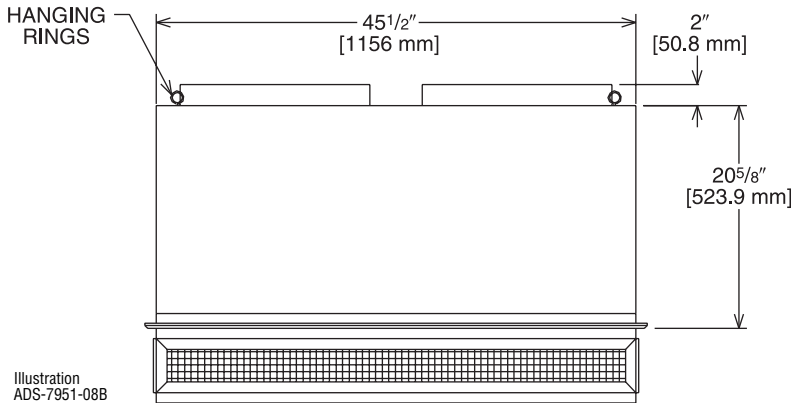
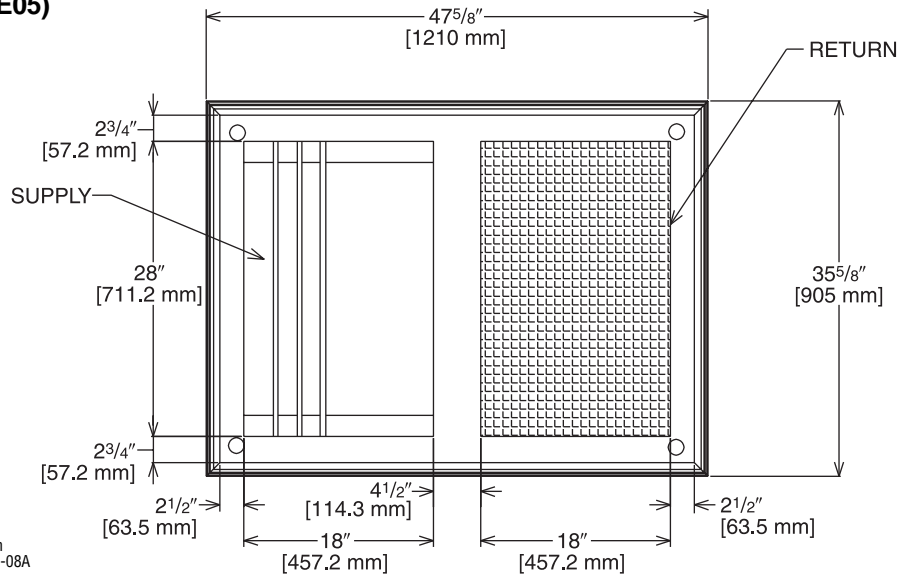
ACCESSORIES

CONCENTRIC DIFFUSER—STEP DOWN 18" x 28" [457.2 x 711.2 mm]

RXRN-AA61 (8.5 & 10 Ton [29.9 kW & 35.2] Models)

For Use With Downflow Transition (RXMC-CE05)
and 18" x 28" [457.2 x 711.2 mm]
Supply and Return Ducts

- All aluminum diffuser with aluminum return air eggcrate.
- Built-in anti-sweat gasket.
- Molded fiberglass supports.
- Built-in hanging supports.
- Diffuser box constructed of sheetmetal insulated with 1" [25.4 mm] 1.5 lbs. [.7 kg] duct liner.
- Double deflection diffuser with the blades secured by spring steel.



ENGINEERING DATA^①

Model No.	Flow Rate CFM [L/s]	Static Pressure in w.c. [kPa]	Throw ^{② ③} Feet [m]	Neck Velocity fpm [m/s]	Noise Level ^④ (dB)
RXRN-AA61	3600 [1699]	0.17 [0.042]	25-33 [7.6-10.1]	851 [4.3]	30
	3800 [1793]	0.18 [0.045]	27-35 [8.2-10.7]	898 [4.6]	30
	4000 [1888]	0.21 [0.052]	29-37 [8.8-11.3]	946 [4.8]	30
	4200 [1982]	0.24 [0.060]	32-40 [9.8-12.2]	993 [5.0]	30
	4400 [2076]	0.27 [0.067]	34-42 [10.4-12.8]	1040 [5.3]	30

NOTES: ① All data is based on the air diffusion council guidelines.

② Throw data is based on 75 FPM Terminal Velocities using isothermal air.

③ Throw is based on diffuser blades being directed in a straight pattern.

④ Actual noise levels may vary due to duct design and do not include transmitted unit noise.

Adequate duct attenuation must be provided to reduce sound output from the unit.

[] Designates Metric Conversions

CONCENTRIC DIFFUSER—STEP DOWN 18" x 32" [457.2 x 813 mm]

RXRN-AA66 (12.5 & 15 Ton [44.0 & 52.8 kW] Models)

For Use With Downflow Transition (RXMC-CF06)
and 18" x 32" [457.2 x 813 mm]
Supply and Return Ducts

- All aluminum diffuser with aluminum return air eggcrate.
- Built-in anti-sweat gasket.
- Molded fiberglass supports.
- Built-in hanging supports.
- Diffuser box constructed of sheetmetal insulated with 1" [25.4 mm] 1.5 lbs. [.7 kg] duct liner.
- Double deflection diffuser with the blades secured by spring steel.

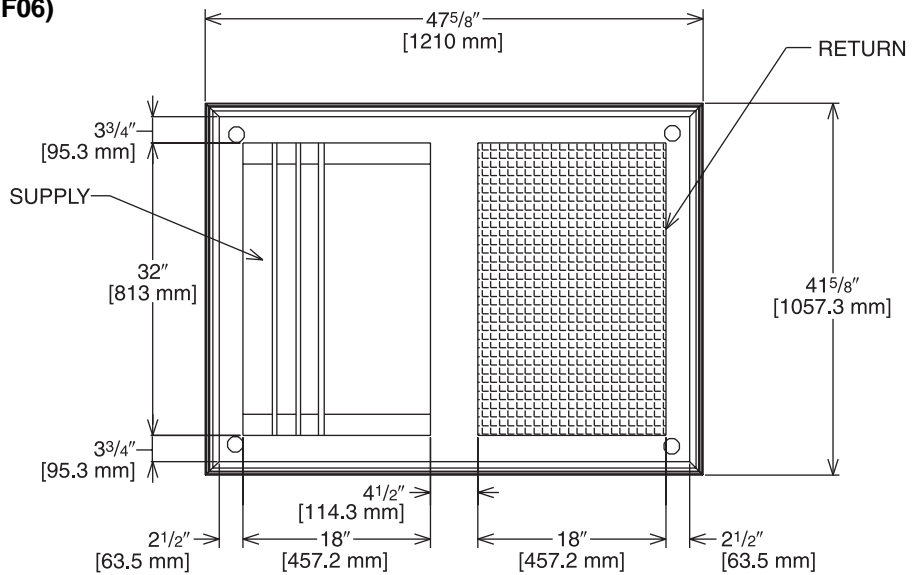


Illustration
ADS-7951-09A

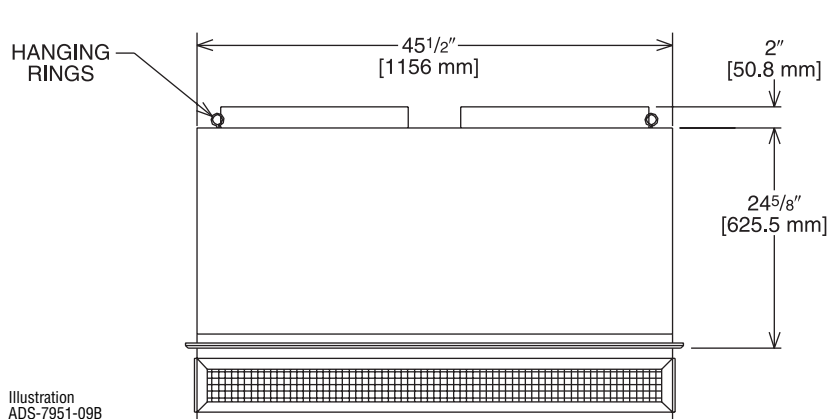


Illustration
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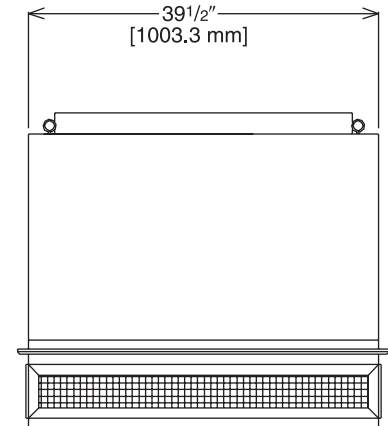


Illustration
ADS-7951-09C

ENGINEERING DATA^①

Model No.	Flow Rate CFM [L/s]	Static Pressure in w.c. [kPa]	Throw ^{② ③} Feet [m]	Neck Velocity fpm [m/s]	Noise Level ^④ (dbA)
RXRN-AA66	4600 [2171]	0.31 [0.077]	26-31 [7.9-9.4]	841 [4.3]	30
	4800 [2265]	0.32 [0.080]	27-32 [8.2-9.8]	878 [4.5]	30
	5000 [2359]	0.34 [0.085]	28-33 [8.5-10.1]	915 [4.6]	30
	5200 [2454]	0.36 [0.090]	28-34 [8.5-10.4]	951 [4.8]	30
	5400 [2548]	0.39 [0.097]	29-35 [8.8-10.7]	988 [6.0]	30

- NOTES: ① All data is based on the air diffusion council guidelines.
 ② Throw data is based on 75 FPM Terminal Velocities using isothermal air.
 ③ Throw is based on diffuser blades being directed in a straight pattern.
 ④ Actual noise levels may vary due to duct design and do not include transmitted unit noise.
 Adequate duct attenuation must be provided to reduce sound output from the unit.

[] Designates Metric Conversions

ACCESSORIES

FLUSH MOUNT CONCENTRIC DIFFUSER—FLUSH

RXRN-FA75 (7.5 & 8.5 Ton [26.4 & 29.9 kW] Models)

For Use With Downflow Transition (RXMC-CD04) and 20" [508 mm] Round Supply and Return Ducts

- All aluminum diffuser with aluminum return air eggcrate.
- Built-in anti-sweat gasket.
- Molded fiberglass supports.
- Built-in hanging supports.
- Diffuser box constructed of sheetmetal insulated with 1" [25.4 mm] 1.5 lbs. [.7 kg] duct liner.

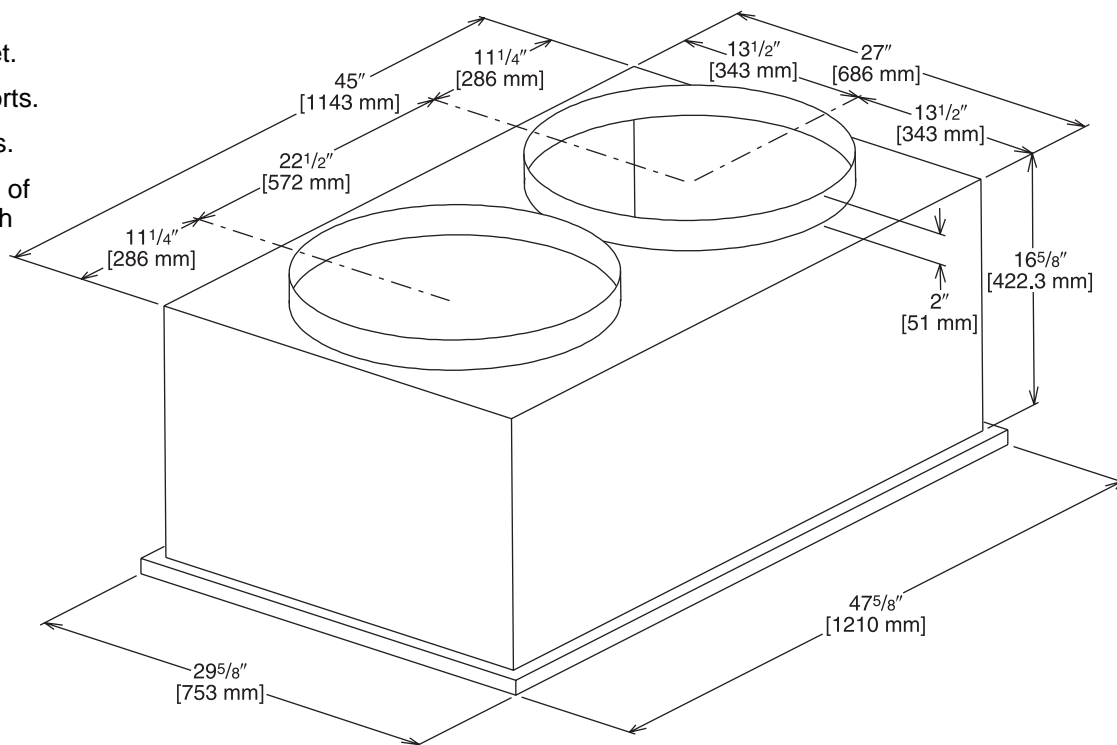


Illustration
ADS-5348-04

ENGINEERING DATA^①

Model No.	Flow Rate CFM [L/s]	Static Pressure in. w.c. [kPa]	Throw ^{② ③} Feet [m]	Neck Velocity fpm [m/s]	Noise Level ^④ (dbA)
RXRN-FA75	2600 [1227]	.17 [0.042]	19-24 [5.8-7.3]	663 [3.4]	30
	2800 [1321]	.20 [0.050]	20-28 [6.1-8.5]	714 [3.6]	35
	3000 [1416]	.25 [0.062]	21-29 [6.4-8.8]	765 [3.9]	35
	3200 [1510]	.31 [0.077]	22-29 [6.7-8.8]	816 [4.1]	40
	3400 [1604]	.37 [0.092]	22-30 [6.7-9.1]	867 [4.4]	40

NOTES: ① All data is based on the air diffusion council guidelines.

② Throw data is based on 75 FPM Terminal Velocities using isothermal air.

③ Throw is based on diffuser blades being directed in a straight pattern.

④ Actual noise levels may vary due to duct design and do not include transmitted unit noise.

Adequate duct attenuation must be provided to reduce sound output from the unit.

[] Designates Metric Conversions

CONCENTRIC DIFFUSER—FLUSH and 18" x 28" [457.2 x 711.2 mm]

RXRN-AA71 (8.5 & 10 Ton [29.9 & 35.2] Models)

For Use With Downflow Transition (RXMC-CE05)
and 18" x 28" [457.2 x 711.2 mm]
Supply and Return Ducts

- All aluminum diffuser with aluminum return air eggcrate.
- Built-in anti-sweat gasket.
- Molded fiberglass supports.
- Built-in hanging supports.
- Diffuser box constructed of sheetmetal insulated with 1" [25.4 mm] 1.5 lbs. [.7 kg] duct liner.

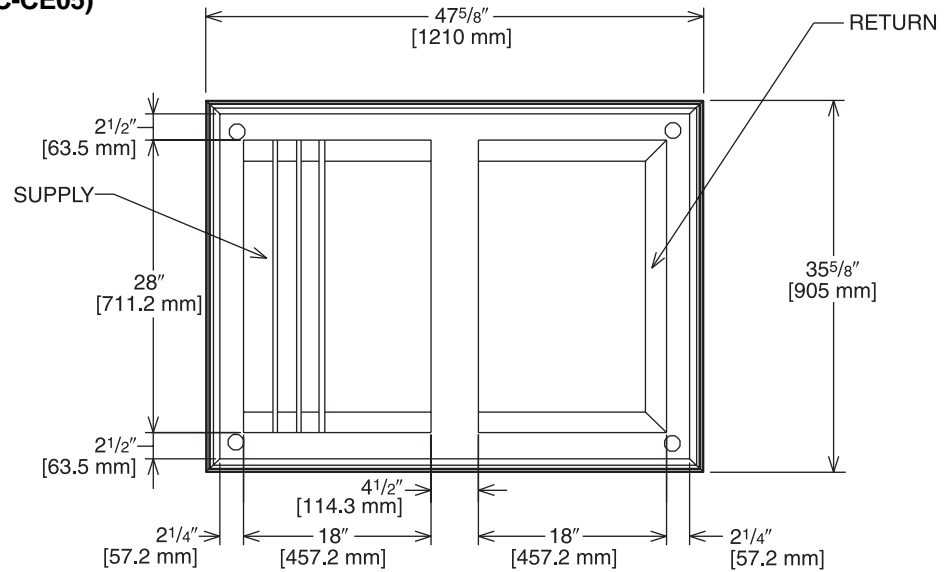


Illustration
ADS-7951-06A

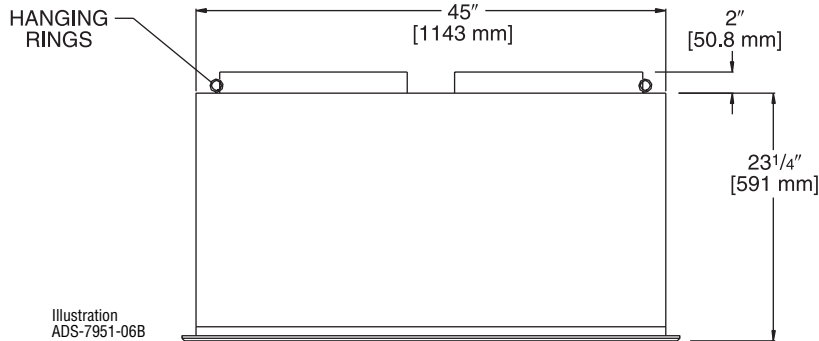


Illustration
ADS-7951-06B

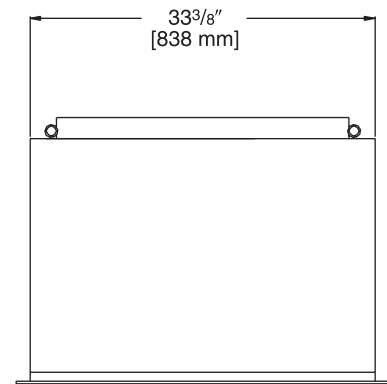


Illustration
ADS-7951-06C

ENGINEERING DATA^①

Model No.	Flow Rate CFM [L/s]	Static Pressure in w.c. [kPa]	Throw ^{② ③} Feet [m]	Neck Velocity fpm [m/s]	Noise Level ^④ (dB)
RXRN-AA71	3600 [1699]	0.17 [0.042]	22-29 [6.7-8.8]	844 [4.3]	35
	3800 [1793]	0.18 [0.045]	22-30 [6.7-9.1]	891 [4.5]	40
	4000 [1888]	0.21 [0.052]	24-33 [7.3-10.1]	938 [4.8]	40
	4200 [1982]	0.24 [0.060]	26-35 [7.9-10.7]	985 [5.0]	40
	4400 [2076]	0.27 [0.067]	28-37 [8.5-11.3]	1032 [5.2]	40

NOTES: ① All data is based on the air diffusion council guidelines.

② Throw data is based on 75 FPM Terminal Velocities using isothermal air.

③ Throw is based on diffuser blades being directed in a straight pattern.

④ Actual noise levels may vary due to duct design and do not include transmitted unit noise.

Adequate duct attenuation must be provided to reduce sound output from the unit.

[] Designates Metric Conversions

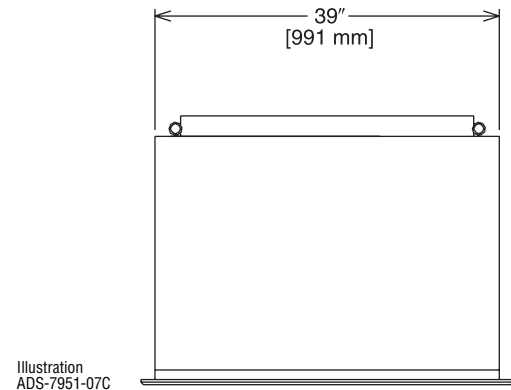
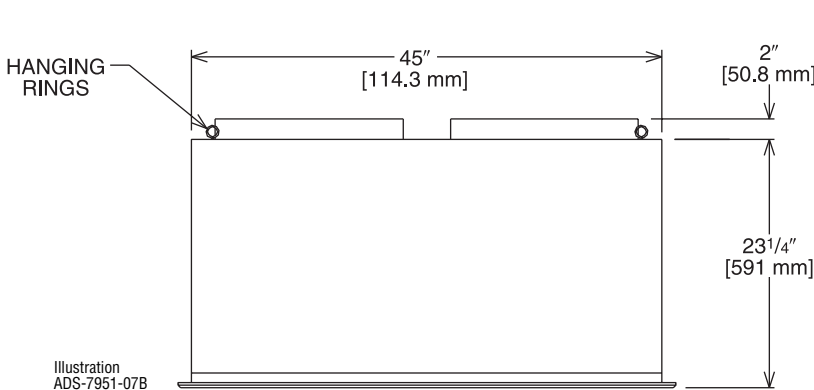
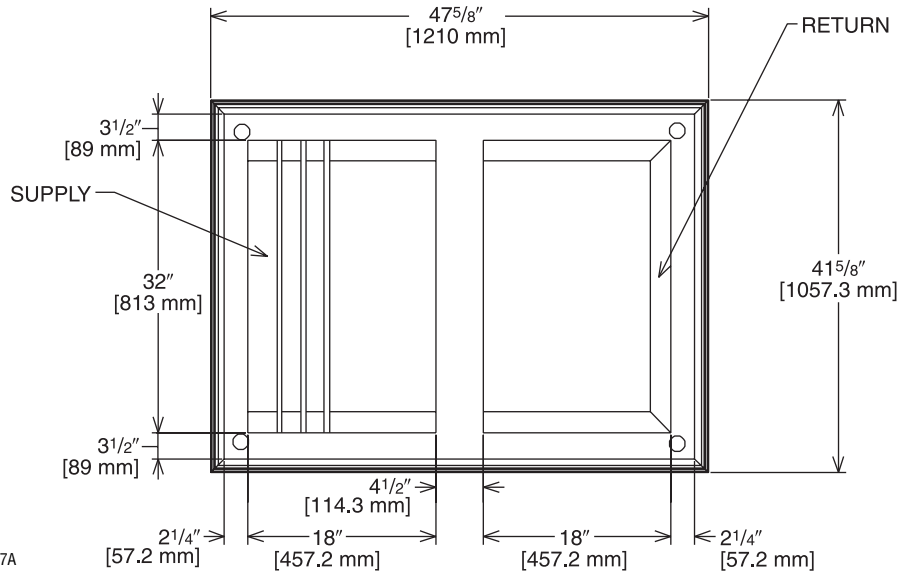
ACCESSORIES

CONCENTRIC DIFFUSER—FLUSH 18" x 32" [457.2 x 813 mm]

RXRN-AA76 (12.5 & 15 Ton [44.0 & 52.8 kW] Models)

For Use With Downflow Transition (RXMC-CF06)
and 18" x 32" [457.2 x 813 mm]
Supply and Return Ducts

- All aluminum diffuser with aluminum return air eggcrate.
- Built-in anti-sweat gasket.
- Molded fiberglass supports.
- Built-in hanging supports.
- Diffuser box constructed of sheetmetal insulated with 1" [25.4 mm] 1.5 lbs. [.7 kg] duct liner.



ENGINEERING DATA^①

Model No.	Flow Rate CFM [L/s]	Static Pressure in w.c. [kPa]	Throw ^{② ③} Feet [m]	Neck Velocity fpm [m/s]	Noise Level ^④ (dbA)
RXRN-AA76	4600 [2171]	0.31 [0.077]	25-34 [7.6-10.4]	922 [4.7]	40
	4800 [2265]	0.32 [0.080]	26-35 [7.9-10.7]	962 [4.9]	40
	5000 [2359]	0.34 [0.085]	27-36 [8.2-11.0]	1002 [5.1]	40
	5200 [2454]	0.36 [0.090]	30-39 [9.1-11.9]	1043 [5.3]	45
	5400 [2548]	0.39 [0.097]	32-41 [9.8-12.5]	1083 [5.5]	45

NOTES: ① All data is based on the air diffusion council guidelines.

② Throw data is based on 75 FPM Terminal Velocities using isothermal air.

③ Throw is based on diffuser blades being directed in a straight pattern.

④ Actual noise levels may vary due to duct design and do not include transmitted unit noise.

Adequate duct attenuation must be provided to reduce sound output from the unit.

[] Designates Metric Conversions

General

Units shall be convertible airflow. Operating range for units with electromechanical controls shall be between 125°F (51.7°C) and 50°F (4.4°C). Cooling performance shall be rated in accordance with DOE and/or ARI testing procedures. All units shall be factory assembled, internally wired, fully charged with R-410A, and 100 percent run-tested before leaving the factory. Wiring internal to the unit shall be colored and numbered for simplified identification. Units shall be UL listed and labeled, classified in accordance to UL 1995/CAN/CSA No. 236-M90 for central cooling air conditioners. Canadian units shall be CUL certified.

Casing

Unit casing shall be constructed of zinc coated, heavy gauge, galvanized steel. Exterior surfaces shall be cleaned, phosphatized, and finished with a weather-resistant baked enamel finish. Unit's surface shall be tested 1000 hours in a salt spray test in compliance with ASTM B117. Cabinet construction shall allow for all maintenance on one side of the unit. All exposed vertical panels and top covers in the indoor air section shall be insulated with a cleanable foil faced, fire retardant permanent, odorless glass fiber material and secured with adhesive and mechanical fasteners. The base of the unit shall be insulated with foil-faced material. All insulation edges shall be either captured or sealed. The unit's base pan shall have no penetrations within the perimeter of the curb other than the raised 1-1/8" [28.58 mm] high downflow supply return openings to provide an added water integrity precaution. The base rails of the unit shall have provisions for forklift and crane lifting, with forklift capabilities on three sides of the unit.

Unit Top

The indoor top cover shall be one-piece construction, it shall not be double-hemmed and gasket-sealed.

Filters

Two inch [50.8 mm], throwaway filters shall be standard on all units.

Compressors

Units shall have direct-drive, hermetic, scroll type compressors with centrifugal type oil pumps. Motor shall be suction gas-cooled and shall have a voltage utilization range of plus or minus 10 percent of unit nameplate voltage. Internal overloads shall be provided with the scroll compressors. The compressor shall have external isolation to minimize noise.

Refrigerant Circuits

Each refrigerant circuit shall have TXV except 072 & 085 small orifice refrigerant control expansion device. Service pressure ports, shall be factory-installed as standard.

Evaporator And Condenser Coils

Internally finned, 3/8" [9.53 mm] copper tubes mechanically bonded to a configured aluminum plate fin shall be standard. Coils shall be leak tested at the factory to ensure pressure integrity. The evaporator coil and condenser coil shall be leak tested to 200 psig and pressure tested to 450 psig. A sloped condensate drain pan shall be standard and shall be removable.

Outdoor Fans

The outdoor fans shall be direct-drive statically and dynamically balanced, draw-through in the vertical discharge position. The fan motor shall be permanently lubricated and shall have built-in thermal overload protection.

Indoor Fans

All 3-phase units offer belt drive, FC centrifugal fans with adjustable motor sheaves. All motors shall be thermally protected. All indoor fan motors meet the U.S. Energy Policy Act of 1992 (EPACT).

Controls

Unit shall be completely factory wired with necessary controls and contactor pressure lugs or terminal block for power wiring. Units shall provide an external location for mounting a fused disconnect device.

24-volt electromechanical control circuit shall include control transformer and contactor pressure lugs for power wiring. Unit shall have single point power entry as standard.

Accessories/Option

Roof Curb—The roof curb shall be designed to mate with the unit's downflow supply and return openings and provide support and a watertight installation when installed properly. The roof curb design shall allow field-fabricated rectangular supply/return ductwork to be connected directly to the curb. Curb design shall comply with NRCA requirements. Curbs shall be shipped knocked down for toolless field assembly and shall include wood nailer strips.

Economizer—This accessory shall be either field or factory-installed and is available with barometric relief standard. The assembly includes direct drive gear driver, fully modulating 0-100 percent motor and dampers, minimum position setting, mixed air sensor, wiring harness with plug, and single enthalpy control. Optional differential enthalpy control shall be field-installed. The factory-installed economizer arrives ready for operation.

Remote Potentiometer—Field installed, the minimum position setting of economizer shall be adjusted with this accessory.

Motorized Outside Air Dampers

Field-installed manually set outdoor air dampers shall provide up to 50 percent outside air. Once set, outdoor air dampers shall open to set position when indoor fan starts. The damper shall close to the full closed position when indoor fan shuts down.

Manual Outside Air Damper—Factory or field-installed rain hood and screen shall provide up to 50 percent outside air.

Oversized Motors—Factory installed belt drive oversized motors shall be available for high static applications.

Powered Exhaust—The field installed powered exhaust, available for all units, shall provide exhaust of return air, when using an economizer, to maintain better building pressurization.

MECHANICAL SPECIFICATIONS—TZCAC SERIES

Through the Base Electrical Access—An electrical service entrance shall be factory provided allowing electrical access for both control and main power connection inside the curb and through the base of the unit. Option will allow for field installation of liquid-tight conduit and an external field-installed disconnect switch.

Through the Base Electrical with Disconnect Switch—Factory-installed 3-pole, molded case disconnect switch with provisions for through the base electrical connections are available. The disconnect switch will be installed in the unit in a water-tight enclosure with access through a hinged door. Factory wiring will be provided from the switch to the unit high voltage terminal block. The switch will be UL/CSA agency recognized. Note: The disconnect switch will be sized per NEC and UL guidelines but will not be used in place of unit over current protection.

Freeze/Clogged Filter Switches—This factory or field-installed option allows for individual fan failure or dirty filter protection. If indoor coil gets too cold due to low airflow, compressor operation will be temporarily interrupted.

Enthalpy Control—Single Enthalpy Control shall be standard for all economizers. Enthalpy control offers a higher level of comfort control, along with energy savings potential, than the standard dry bulb control. This is due to the additional wet bulb sensing capability.

High Pressure Cutout—High pressure cutout shall be standard on all models and 1/4 turn fasteners. All scroll compressors shall include Internal Pressure Relief as standard.

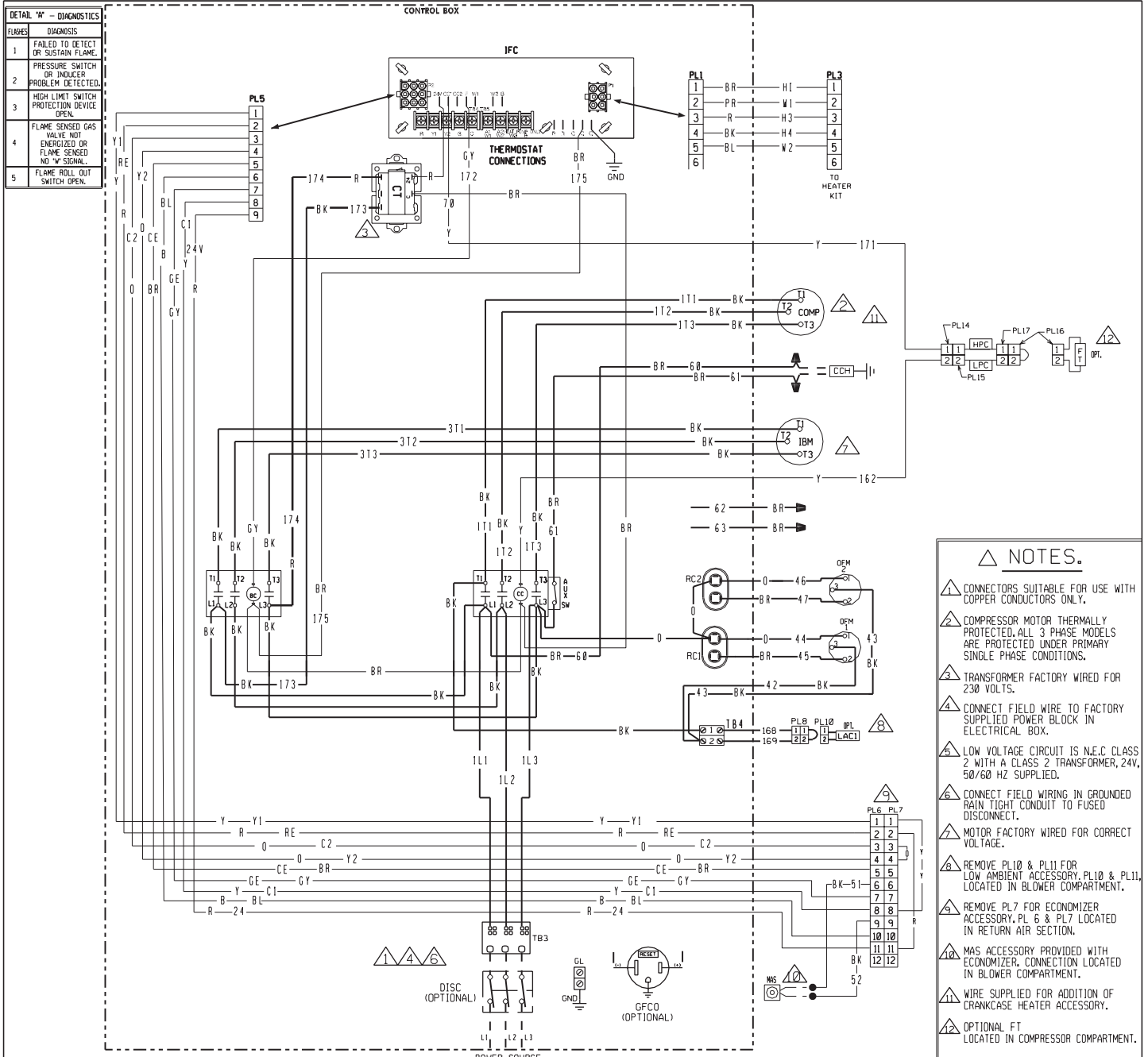
Hinged Access Doors—Stainless steel metal hinges and 1/4 turn fasteners are standard on the Filter/Electrical Access Door, Heat Exchanger door and blower doors.

Thermostats—Two stage heating and cooling operation shall be available, for field installation, in either manual or automatic changeover. Automatic programmable electronic with night set back shall also be available.

Differential Enthalpy—Adds on to the standard single control with other enthalpy sensors that compare total heat content of the indoor air and outdoor air to determine the most efficient air source. This control option offers the highest level of comfort control, plus energy efficiency available.

Low Ambient Cooling—Electromechanical models have cooling capabilities to 40°F as built, or to 0°F by adding the optional low ambient (froststat) control.

WIRING SCHEMATICS—TZCAC SERIES



- NOTES.**
1. CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
 2. COMPRESSOR MOTOR THERMALLY PROTECTED, ALL 3 PHASE MODELS ARE PROTECTED UNDER PRIMARY SINGLE PHASE CONDITIONS.
 3. TRANSFORMER FACTORY WIRED FOR 230 VOLTS.
 4. CONNECT FIELD WIRE TO FACTORY SUPPLIED POWER BLOCK IN ELECTRICAL BOX.
 5. LOW VOLTAGE CIRCUIT IS N.E.C. CLASS 2 WITH A CLASS 2 TRANSFORMER, 24V, 50/60 HZ SUPPLIED.
 6. CONNECT FIELD WIRING IN GROUND RAIN TIGHT CONDUIT TO FUSED DISCONNECT.
 7. MOTOR FACTORY WIRED FOR CORRECT VOLTAGE.
 8. REMOVE PL10 & PL11 FOR LOW AMBIENT ACCESSORY. PL10 & PL11 LOCATED IN BLOWER COMPARTMENT.
 9. REMOVE PL7 FOR ECONOMIZER ACCESSORY. PL 6 & PL7 LOCATED IN RETURN AIR SECTION.
 10. MAS ACCESSORY PROVIDED WITH ECONOMIZER, CONNECTION LOCATED IN BLOWER COMPARTMENT.
 11. WIRE SUPPLIED FOR ADDITION OF CRANKCASE HEATER ACCESSORY.
 12. OPTIONAL FT LOCATED IN COMPRESSOR COMPARTMENT.

COMPONENT CODE		WIRING INFORMATION		WIRE COLOR CODE	
AUX SW	AUXILIARY SWITCH	LINE VOLTAGE	—	BK	BLACK
BC	BLOWER CONTACTOR	-FACTORY STANDARD	—	BR	BROWN
CC	COMPRESSOR CONTACTOR	-FACTORY OPTION	- - - - -	BL	BLUE
CCH	CRANKCASE HEATER	-FIELD INSTALLED	—	G	GREEN
COMP	COMPRESSOR	LOW VOLTAGE	—	GY	GRAY
CT	CONTROL TRANSFORMER	-FACTORY STANDARD	—	O	ORANGE
DISC	DISCONNECT SWITCH	-FACTORY OPTION	- - - - -	PR	PURPLE
FLMS	FLAME SENSOR	-FIELD INSTALLED	—	R	RED
FT	FREEZE STAT	REPLACEMENT WIRE	—	W	WHITE
GFCO	GROUND FAULT CONVENIENCE OUTLET	-MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (105° C MIN.)	—	Y	YELLOW
GL	GROUND LUG	WARNING	—		
GND	GROUND	-CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., AND LOCAL CODES AS APPLICABLE.	—		
GV	GAS VALVE				
HPC	HIGH PRESSURE CONTROL				
IBM	INDOOR BLOWER MOTOR BELT DRIVE				
IDM	INDUCED DRAFT MOTOR				
IFC	INTEGRATED FURNACE CONTROL				
LAC	LOW AMBIENT COOLING CONTROL				
LC	LIMIT CONTROL				
LC	LIMIT CONTROL				
LPC	LOW PRESSURE CONTROL				
MAS	MIX AIR SENSOR				
MRLC	MANUAL RESET LIMIT CONTROL				
NPC	NEGATIVE PRESSURE CONTROL				
OFM	OUTDOOR FAN MOTOR				
PL	PLUG				
RC	RUN CAPACITOR				
SE	SPARK ELECTRODE				
TB	TERMINAL BLOCK				
W	WIRE NUT				

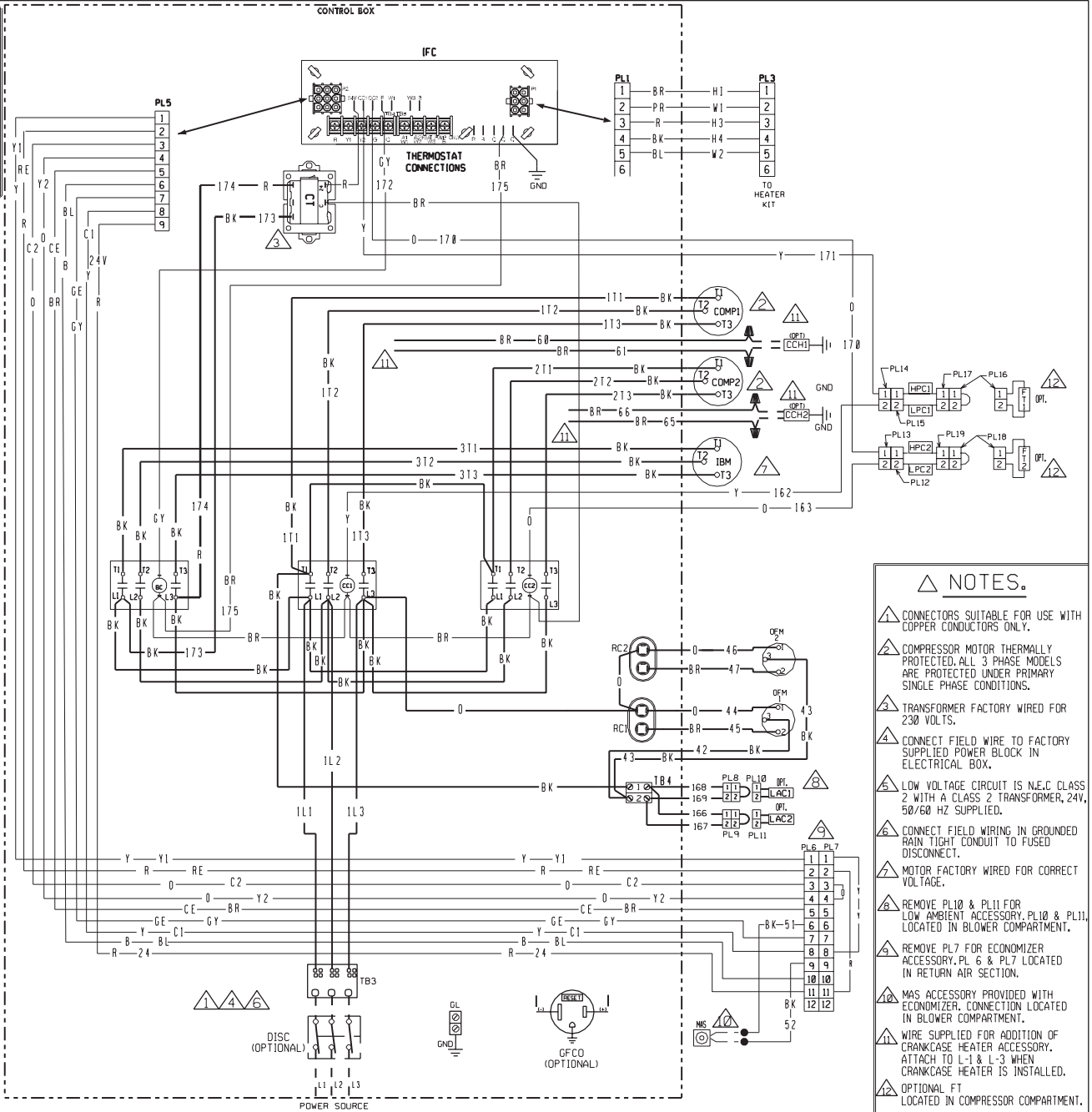
DWG. NO. 90-102892-02
REV 02

WIRING DIAGRAM
072/085
208-230/460/575V 3 PH, 60 HZ.
ROOFTOP

DR. BY MGR APP. BY DATE 5-19-08 DWG. NO. 90-102892-02 REV 02

WIRING SCHEMATICS—TZCAC SERIES

FLASHES	DIAGNOSIS
1	FAILED TO DETECT OR SUSTAIN FLAME.
2	PRESSURE SWITCH OR INDUCER PROBLEM DETECTED.
3	HIGH LIMIT SWITCH PROTECTION DEVICE OPEN.
4	FLAME SENSED GAS VALVE NOT ENERGIZED OR FLAME SENSED NO "SIGNAL".
5	FLAME ROLL OUT SWITCH OPEN.



- NOTES.**
- 1. CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
 - 2. COMPRESSOR MOTOR THERMALLY PROTECTED. ALL 3 PHASE MODELS ARE PROTECTED UNDER PRIMARY SINGLE PHASE CONDITIONS.
 - 3. TRANSFORMER FACTORY WIRED FOR 230 VOLTS.
 - 4. CONNECT FIELD WIRE TO FACTORY SUPPLIED POWER BLOCK IN ELECTRICAL BOX.
 - 5. LOW VOLTAGE CIRCUIT IS N.E.C CLASS 2 WITH A CLASS 2 TRANSFORMER, 24V, 50/60 HZ SUPPLIED.
 - 6. CONNECT FIELD WIRING IN GROUNDED RAIN TIGHT CONDUIT TO FUSED DISCONNECT.
 - 7. MOTOR FACTORY WIRED FOR CORRECT VOLTAGE.
 - 8. REMOVE PL10 & PL11 FOR LOW AMBIENT ACCESSORY. PL10 & PL11 LOCATED IN BLOWER COMPARTMENT.
 - 9. REMOVE PL7 FOR ECONOMIZER ACCESSORY. PL 6 & PL7 LOCATED IN RETURN AIR SECTION.
 - 10. MAS ACCESSORY PROVIDED WITH ECONOMIZER. CONNECTION LOCATED IN BLOWER COMPARTMENT.
 - 11. WIRE SUPPLIED FOR ADDITION OF CRANKCASE HEATER ACCESSORY. ATTACH TO L-1 & L-3 WHEN CRANKCASE HEATER IS INSTALLED.
 - 12. OPTIONAL FT LOCATED IN COMPRESSOR COMPARTMENT.

COMPONENT CODE	
BC BLOWER CONTACTOR	LAC LOW AMBIENT COOLING CONTROL
CC COMPRESSOR CONTACTOR	LC LIMIT CONTROL
CCH CRANKCASE HEATER	LPC LOW PRESSURE CONTROL
COMP COMPRESSOR	MAS MIX AIR SENSOR
CT CONTROL TRANSFORMER	MRLC MANUAL RESET LIMIT CONTROL
DISC DISCONNECT SWITCH	NPC NEGATIVE PRESSURE CONTROL
FLMS FLAME SENSOR	OFM OUTDOOR FAN MOTOR
FT FREEZE STAT	PL PLUG
GL GROUND FAULT CONVENIENCE OUTLET	RC RUN CAPACITOR
GL GROUND LUG	SE SPARK ELECTRODE
GND GROUND	TB TERMINAL BLOCK
GV GAS VALVE	▲ WIRE NUT
HPC HIGH PRESSURE CONTROL	
IDM INDOOR BLOWER MOTOR BELT DRIVE	
IDM INDUCED DRAFT MOTOR	
IFC INTEGRATED FURNACE CONTROL	

WIRING INFORMATION

LINE VOLTAGE
 -FACTORY STANDARD —————
 -FACTORY OPTION - - - - -
 -FIELD INSTALLED - - - - -

LOW VOLTAGE
 -FACTORY STANDARD —————
 -FACTORY OPTION - - - - -
 -FIELD INSTALLED - - - - -

REPLACEMENT WIRE
 -MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (105° C MIN.)

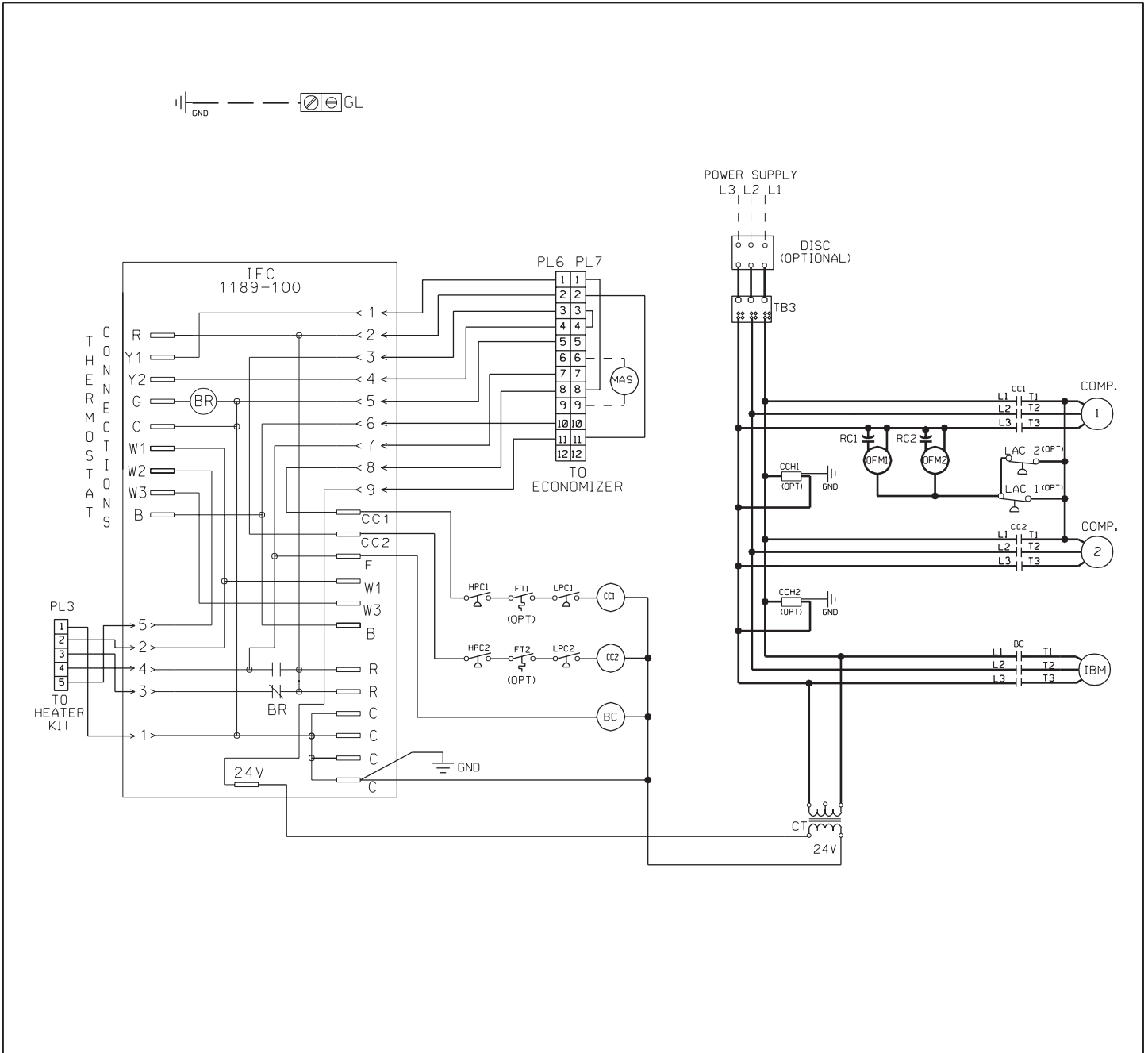
WARNING
 -CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., AND LOCAL CODES AS APPLICABLE.

WIRE COLOR CODE	
BK BLACK	O ORANGE
BR BROWN	P PURPLE
BL BLUE	R RED
G GREEN	W WHITE
GY GRAY	Y YELLOW

WIRING DIAGRAM
 090/102/120/150
 208-230/460/575V 3 PH, 60 HZ.
 ROOFTOP

DR. BY	APP. BY	DATE	DWG. NO.	REV
MGR		5-19-08	90-102892-01	03

WIRING SCHEMATICS—TZCAC SERIES



DWG. NO. 90-102893-01 REV. 00	COMPONENT CODE	WIRING INFORMATION	WIRE COLOR CODE			
	BC BLOWER MOTOR CONTACTOR BR BLOWER RELAY CC COMPRESSOR CONTACTOR CCH CRANKCASE HEATER COMP COMPRESSOR CT CONTROL TRANSFORMER FT FREEZE STAT GL GROUND LUG GND GROUND HPC HIGH PRESSURE CONTROL IBM INDOOR BLOWER MOTOR IFC INTEGRATED FURNACE CONTROL LAC LOW AMBIENT CONTROL LPC LOW PRESSURE CONTROL MAS MIXED AIR SENSOR OFM OUTDOOR FAN MOTOR OPT OPTIONAL PL PLUG RC RUN CAPACITOR TB TERMINAL BLOCK	LINE VOLTAGE -FACTORY STANDARD -FACTORY OPTION -FIELD INSTALLED LOW VOLTAGE -FACTORY STANDARD -FACTORY OPTION -FIELD INSTALLED REPLACEMENT WIRE -MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (105° C MIN.) WARNING -CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., AND LOCAL CODES AS APPLICABLE.	BK BLACK BR BROWN BL BLUE G GREEN GY GRAY O ORANGE PR PURPLE R RED W WHITE Y YELLOW			
WIRING SCHEMATIC 090/102/120/150 PACKAGED A/C 208-230, 3PH, 60HZ./460, 3PH, 60HZ. 575V, 3PH, 60HZ.			DR. BY MGR	APP. BY DATE 5-22-08	DWG. NO. 90-102893-01	REV. 00

BEFORE PURCHASING THIS APPLIANCE, READ IMPORTANT ENERGY COST AND EFFICIENCY INFORMATION AVAILABLE FROM YOUR RETAILER.

GENERAL TERMS OF LIMITED WARRANTY

Thermal Zone® will furnish a replacement for any part of this product which fails in normal use and service within the applicable periods stated, in accordance with the terms of the limited warranty.

***For Complete Details of the Limited Warranty, Including Applicable Terms and Conditions, See Your Local Installer or Contact the Manufacturer for a Copy.**

Compressor (Residential Application).....	Ten (10) Years
(Commercial Application)	Five (5) Years
Conditional Parts Warranty* (Registration Required)	
(Residential Application).....	Ten (10) Years
Part (Commercial Application).....	One (1) Year

Before proceeding with installation, refer to installation instructions packaged with each model, as well as complying with all Federal, State, Provincial, and Local codes, regulations, and practices.

"In keeping with its policy of continuous progress and product improvement, the right is reserved to make changes without notice."