



The new degree of comfort.™

## Rheem *Commercial Classic*® Series Package Heat Pump



### **RJNL-B High Efficiency Series**

Nominal Sizes 7.5 & 10 Tons [26.4 & 35.2 kW]  
ASHRAE 90.1-2010 Compliant Models



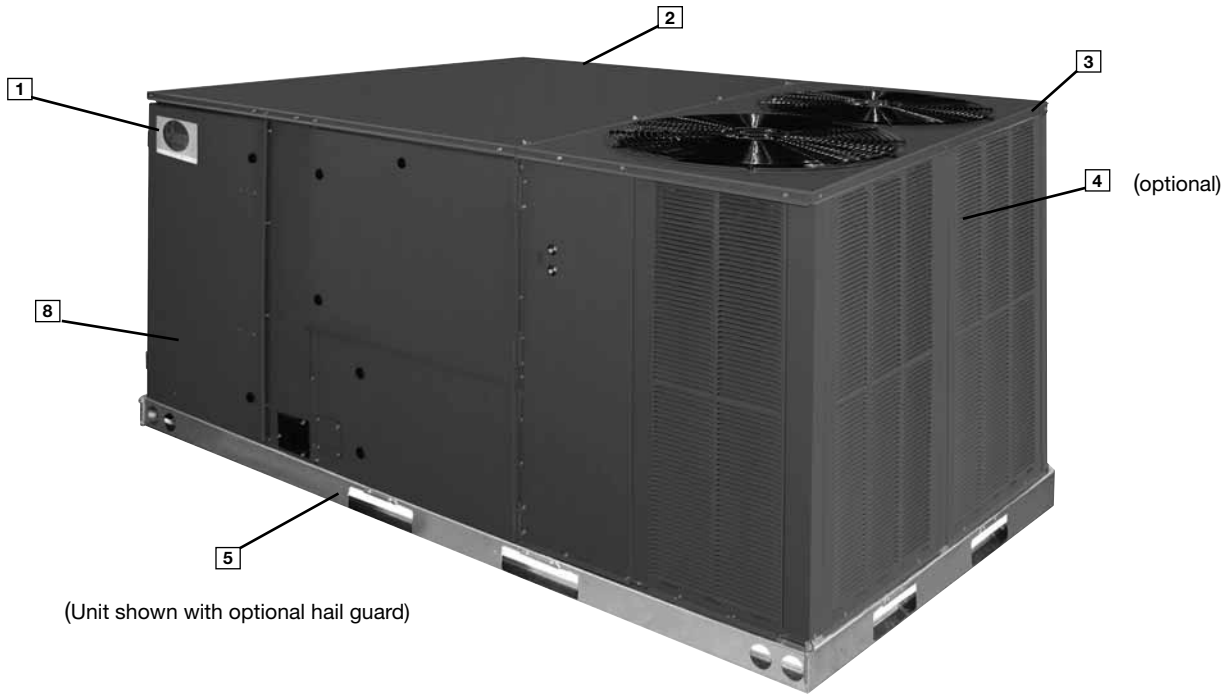
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## RJNL-B STANDARD FEATURES INCLUDE:

- R-410A HFC refrigerant.
- Complete factory charged, wired and run tested.
- Scroll compressors with internal line break overload and high-pressure protection.
- Convertible airflow.
- TXV refrigerant metering system.
- High Pressure and Low Pressure/Loss of charge protection standard on all models.
- Solid Core liquid line filter drier.
- 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.
- Supplemental electric heat provides 100% efficient heating.



(Unit shown with optional hail guard)

Rheem 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 Rheem 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 optional Rheem hail guard (4) is its trademark, and sets the standard for coil protection in the industry. Every Rheem 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 drainpan (7) is made of material that resists the growth of harmful bacteria and is sloped for the latest IAQ benefits. The drainpan slides out for easy cleaning. 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.

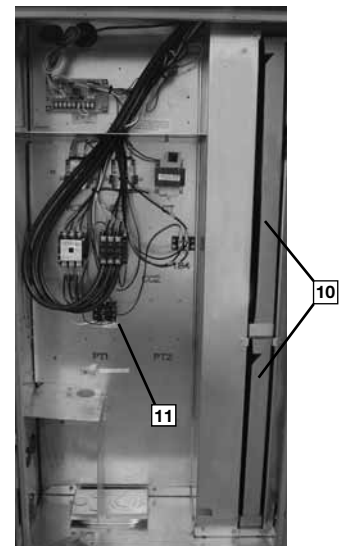


During development, each unit was tested to U.L. 1995, AHRI 340-370 and other Rheem-required reliability tests. Rheem adheres to stringent ISO 9002 quality procedures, and each unit bears the U.L. and AHRI certification labels located on the unit nameplate (8). Contractors can rest assured that when a Rheem 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 panel is permanently embossed with the compartment name (control/filter access, blower access and furnace access).

Control/filter blower and electric heat compartment access are through large, hinged-access panels secured with 1/4 turn fasteners. 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.

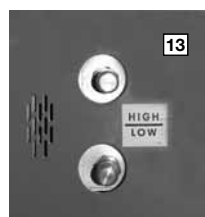




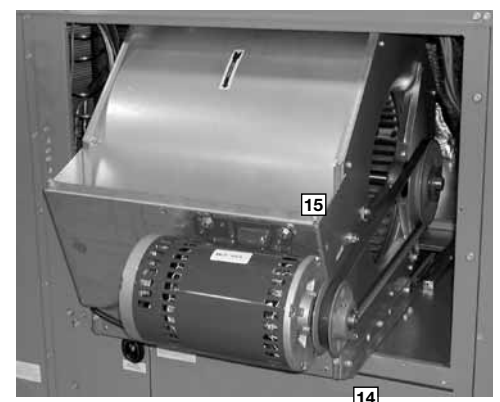
Inside the control box (11), each electrical component is clearly identified with a label that matches the component to the wire diagram for ease of trouble shooting. All wiring is numbered on each end of the termination and color-coded to match the wiring diagram. The control transformer has a low voltage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

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 through the low-voltage terminal strip on the cooling control board. The high-voltage connection is terminated at the terminal block inside electric heat compartment. The suggested mounting for the field-installed disconnect is on the exterior side of the electrical control box.

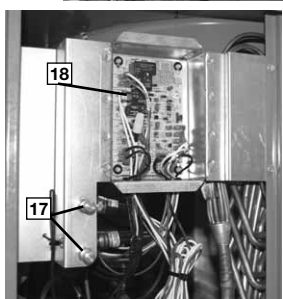
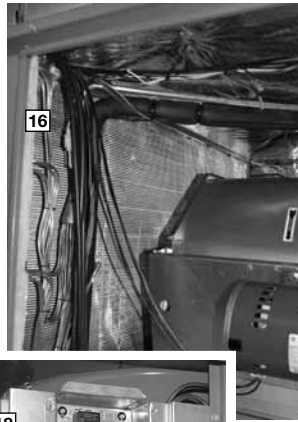
The externally mounted gauge ports, which are permanently identified by embossed wording that clearly identifies the high pressure connection and the low pressure connection, extend through the compressor access panel (13). With the gauge ports mounted externally, an accurate diagnostic of system operation can be performed quickly and easily. The blower compartment access door is hinged and secured with 1/4 turn fasteners to allow easy maintenance of the blower assembly, the entire assembly slides out by removing the 3/8" screws from the blower retention bracket. The adjustable motor pulley (14) can easily be



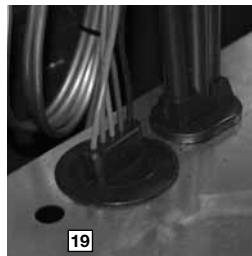
adjusted by loosening the bolts on either side of the motor mount. Removing the bolts allows for easy removal of the blower pulley by pushing the blower assembly up to loosen the belt. Once the pulley is removed, the motor sheave can be adjusted to the desired number of turns, ranging from 0 to 6 turns open. Where the demands for the job require high static, Rheem 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.



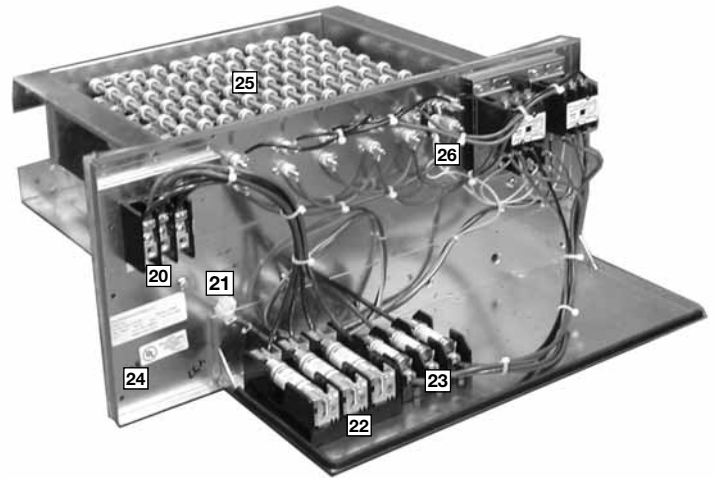
The optional freeze stat refrigerant safety device (16) is attached to the suction line in the blower section. The freeze stat protects the compressor if evaporator coil gets too cold (below freezing) due to low airflow or low evaporator load. The high and low pressure switches (17) and the optional low ambient control are mounted on the gauge port lines inside the compressor access panel. The high pressure switch will shut off the compressor if pressure exceeds 610 PSIG. The low pressure switch is used for loss of charge protection. The low ambient control allows for cooling operation down to 0 degrees ambient by cycling the outdoor fans. Enhanced feature demand defrost control has high and low pressure control inputs with unique pressure switch logic built into the micro-processor to provide compressor and system protection without nuisance lock-outs. LED's on the defrost control provide diagnostic information for service personnel. (18)



Inside the blower compartment the evaporator can also be viewed. The evaporator uses enhanced fin technology for maximum heat transfer. The thermal expansion valve and venturi distributor assure even distribution of refrigerant throughout the evaporator.



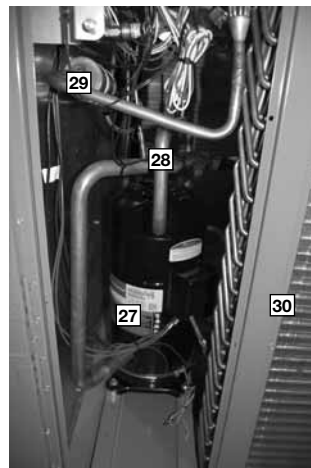
Wiring throughout the unit is neatly bundled and routed. Where wire harnesses go through the condenser bulkhead or blower deck, a molded wire harness assembly (19) provides an air-tight and water-tight seal, and provides strain relief. Care is also taken to tuck raw edges of insulation behind sheet metal 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 15 to 40 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 (20) and a polarized plug for the low-voltage connection (21). The electric furnace comes with fuses for the unit (22) and for the electric furnace (23), and is UL certified (24). The electric heating elements are of a wound-wire construction (25) and isolated with ceramic bushings. The limit switch (26) 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.

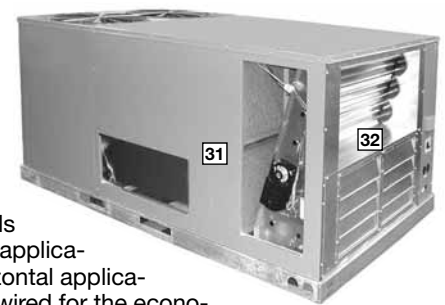
The compressor compartment houses the heartbeat of the unit. The scroll compressor (27) is known for its long life, and for reliable, quiet, and efficient operation. The suction and discharge lines (28) are designed to absorb the strain and stress that the starting torque, steady state operation, and shut down cycle imposed on the refrigerant tubing.



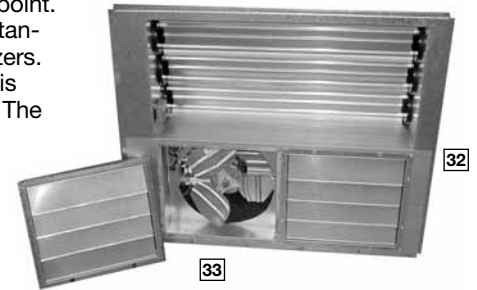
A liquid line bi-flow filter drier (29) is conveniently located near the TXV in the outdoor section. The condenser fan motors (29) can easily be accessed and maintained through the unit top. The polarized plug connection allows the motor to be changed quickly and eliminates the need to snake wires through the unit.

The outdoor coil uses the latest enhanced fin design (30) for the most effective method of heat transfer. Optional louvered panels offer hail protection to outdoor coils without obstructing airflow.

Each unit is designed for both downflow or horizontal applications (31) for job configuration flexibility. The return air compartment can also contain an economizer (32).

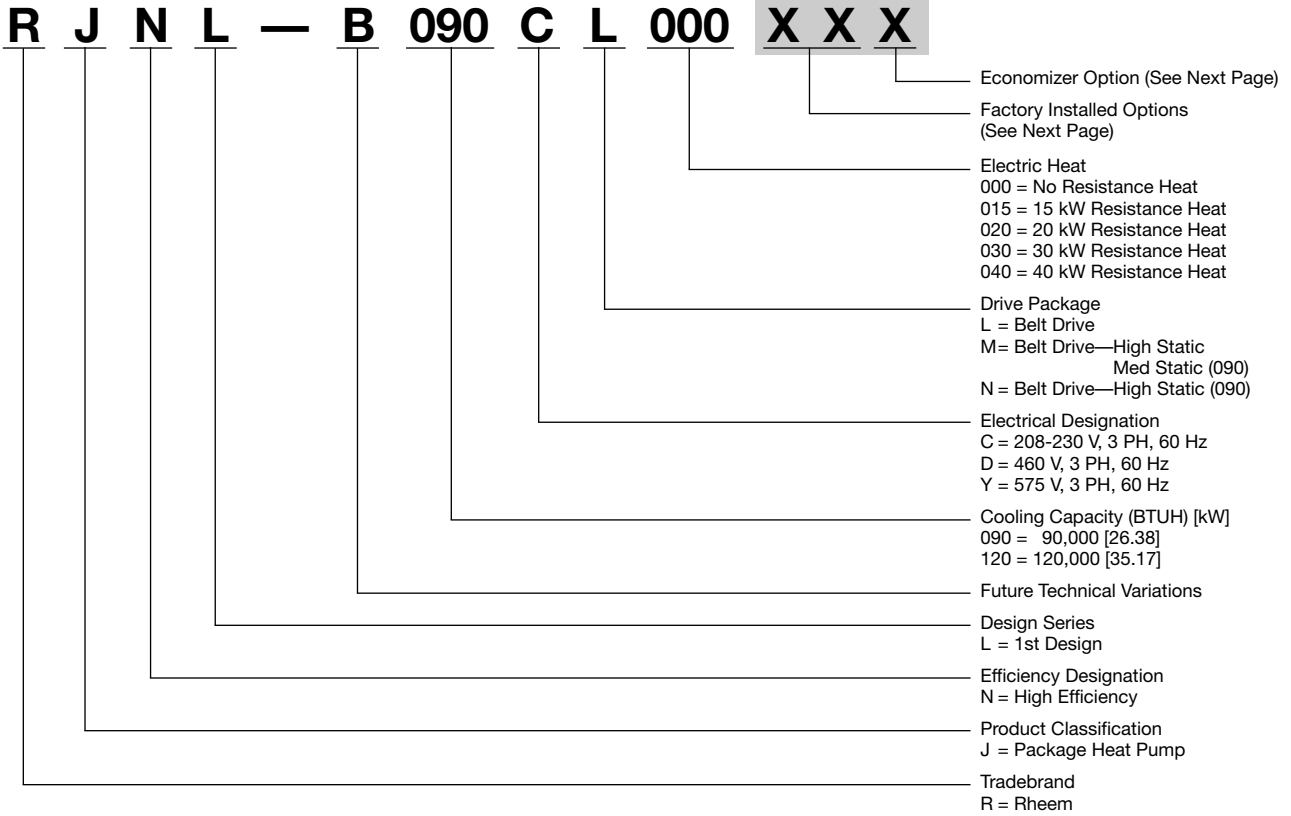


Two economizer models exist, one for downflow applications, and one for horizontal applications. Each unit is pre-wired for the economizer to allow quick plug-in installation. The economizer is also available as a factory-installed option. The economizer, which provides free cooling when outdoor conditions 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 CO<sup>2</sup> setpoint. Barometric relief is standard on all economizers. Power Exhaust (33) is easily field-installed. The power exhaust is housed in the barometric relief opening and is easily slipped in with a plug-in assembly.



The Rheem roofcurb (34) is made for toolless assembly at the jobsite by sequentially engaging the corner brackets into the adjacent curb sides (35), which makes the assembly process quick and easy.





[ ] Designates Metric Conversions





## FACTORY INSTALLED OPTION CODES FOR RJNL (7.5 & 10 TON) [26.4 & 35.2 kW]

Option Code	Hail Guard	Non-Powered Convenience Outlet	Low Ambient/ Freeze Stat
AA	No Options	No Options	No Options
AD	x		
AG		x	
AP			x
BY	x		x
BJ	x	x	
CX	x	x	x
JC		x	x

## ECONOMIZER SELECTION FOR RJNL (7.5 & 10 TON) [26.4 & 35.2 kW]

	No Economizer	Single Enthalpy Economizer With Barometric Relief	Single Enthalpy Economizer With Barometric Relief And Smoke Detector
A	x		
F		x	
G			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.

### Examples:

RJNL-BA090CL000**XXX** .....(where **XX** is factory installed option)

RJNL-BA090CL000.....No options

RJNL-BA090CL000**AAF** .....No option with factory installed economizer

RJNL-BA090CL000**ADA** .....Hailguard with no factory installed economizer

RJNL-BA090CL000**ADF** .....Options same as above with factory installed economizer

[ ] Designates Metric Conversions



## SELECTION PROCEDURE

To select an RJNL-B Heat Pump 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:

Voltage—	230 V – 3 Phase – 60 Hz
Total cooling capacity—	106,000 BTUH [31.0 kW]
Sensible cooling capacity—	82,000 BTUH [24.0 kW]
Heating capacity—	130,000 BTUH [38.1 kW]
*Condenser Entering Air—	95°F [35°C] DB
*Evaporator Mixed Air Entering—	65°F [18.3°C] WB; 78°F [25.6°C] DB
*Indoor Air Flow (vertical)—	3600 CFM [1699 L/s]
*External Static Pressure—	.40 in. WG [.10 kPa]

### 2. SELECT UNIT TO MEET COOLING REQUIREMENTS.

Since total cooling is within the range of a nominal 10 ton [35.1 kW] unit, enter cooling performance table at 95°F [35.0°C] DB condenser inlet air. Interpolate between 63°F [17.2 °C] and 67°F [19.4°C] WB to determine total and sensible capacity and power input for 65°F [18.3 °C] WB evaporator inlet air at 4000 CFM [1888 L/s] indoor air flow (table basis):

Total Cooling Capacity =	121,950 BTUH [35.71 kW]
Sensible Cooling Capacity =	102,750 BTUH [30.09 kW]
Power Input (Compressor and Cond. Fans) =	9,400 watts

Use formula in note ① to determine sensible capacity at 78°F [25.6 °C] DB evaporator entering air:

$$102,750 + (1.10 \times 3,600 \times (1 - 0.05) \times (78 - 80))$$

$$\text{Sensible Cooling Capacity} = 95,226 \text{ BTUH [27.88 kW]}$$

### 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, 121,950 x .99 =	120,731 BTUH [35.35 kW]
Sensible Capacity = 95,226 x 0.97 =	92,369 BTUH [27.05 kW]
Power Input 9,400 x .99 =	9,306 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 0.40 in. WG [.10 kPa] includes the system duct and grilles. Add from the table "Component Air Resistance", 0.08 in. WG [.02 kPa] for wet coil, 0 in. WG [.00 kPa] for downflow air flow, for a total selection static pressure of 0.48 (0.5) in. WG [.12 kPa], and determine:

RPM =	755
WATTS =	1,488
DRIVE =	L (standard 2 H.P. motor)

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

$$1,488 \times 3.412 = 5,077 \text{ BTUH [1.49 kW]}$$

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

$$\text{Net Total Capacity} = 120,731 - 5,077 =$$

$$115,654 \text{ BTUH [33.86 kW]}$$

$$\text{Net Sensible Capacity} = 92,369 - 5,077 =$$

$$87,292 \text{ BTUH [25.56 kW]}$$

### 7. CALCULATE UNIT INPUT AND JOB EER.

$$\text{Total Power Input} = 9,306 \text{ (step 3)} + 1,488$$

$$\text{(step 4)} = 10,794 \text{ Watts}$$

$$\text{EER} = \frac{\text{Net Total BTUH [kW] (step 6)}}{\text{Power Input, Watts (above)}} = \frac{115,654}{10,794} = 10.71$$

### 8. SELECT UNIT HEATING CAPACITY.

From Heater Kit Table select kW to meet heating capacity requirement; multiply kW x 3412 to convert to BTUH

Use 40 kW Heater Kit  
Heater Kit Model: RXJJ-CC40C  
Heater Kit Capacity: 131,021 BTUH [38.4 kW]

Add indoor blower heat effect (step 5) to Heater Kit Capacity to get total heating capacity:

$$131,021 + 5,077 = 136,098 \text{ BTUH [39.9 kW]}$$

### 9. CHOOSE MODEL RJNL-B120CL040

\*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



## NOMINAL SIZES 7.5 & 10 TONS [26.4 & 35.2 kW]

Model RJNL- Series	B090CL	B090CM	B090CN	B090DL
<b>Cooling Performance<sup>1</sup></b>				<b>CONTINUED →</b>
Gross Cooling Capacity Btu [kW]	98,000 [28.71]	98,000 [28.71]	98,000 [28.71]	98,000 [28.71]
EER/SEER <sup>2</sup>	11/NA	11/NA	11/NA	11/NA
Nominal CFM/AHRI Rated CFM [L/s]	3000/2925 [1416/1380]	3000/2925 [1416/1380]	3000/2925 [1416/1380]	3000/2925 [1416/1380]
AHRI Net Cooling Capacity Btu [kW]	94,000 [27.54]	94,000 [27.54]	94,000 [27.54]	94,000 [27.54]
Net Sensible Capacity Btu [kW]	70,800 [20.74]	70,800 [20.74]	70,800 [20.74]	70,800 [20.74]
Net Latent Capacity Btu [kW]	23,200 [6.8]	23,200 [6.8]	23,200 [6.8]	23,200 [6.8]
Integrated Part Load Value <sup>3</sup>	N/A	N/A	N/A	N/A
Net System Power kW	8.54	8.54	8.54	8.54
<b>Heating Performance (Heat Pumps)</b>				
Heating Input Btu [kW] Rating	87,000 [25.49]	87,000 [25.49]	87,000 [25.49]	87,000 [25.49]
System Power KW/COP	7.5/3.4	7.5/3.4	7.5/3.4	7.5/3.4
Low Temp. Btuh [kW] Rating	52,000 [15.24]	52,000 [15.24]	52,000 [15.24]	52,000 [15.24]
System Power KW/COP	6.62/2.3	6.62/2.3	6.62/2.3	6.62/2.3
<b>Compressor</b>				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
<b>Outdoor Sound Rating (dB)<sup>4</sup></b>	88	88	88	88
<b>Outdoor Coil—Fin Type</b>	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]	24.88 [2.31]	24.88 [2.31]	24.88 [2.31]	24.88 [2.31]
Rows / FPI [FPcm]	2 / 22 [9]	2 / 22 [9]	2 / 22 [9]	2 / 22 [9]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
<b>Indoor Coil—Fin Type</b>	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]	3 / 18 [7]	3 / 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]
<b>Outdoor Fan—Type</b>	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
<b>Indoor Fan—Type</b>	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	2
Motor RPM	1725	1725	1725	1725
Motor Frame Size	56	56	56	56
<b>Filter—Type</b>	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]
<b>Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]</b>	350 [9922]	350 [9922]	350 [9922]	350 [9922]
<b>Weights</b>				
Net Weight lbs. [kg]	1009 [458]	1009 [458]	1017 [461]	1009 [458]
Ship Weight lbs. [kg]	1089 [494]	1089 [494]	1097 [498]	1089 [494]

See Page 15 for Notes.

[ ] Designates Metric Conversions

## NOMINAL SIZES 7.5 & 10 TONS [26.4 & 35.2 kW]

Model RJNL- Series	B090DM	B090DN	B090YL	B090YM
<b>Cooling Performance<sup>1</sup></b>				<b>CONTINUED →</b>
Gross Cooling Capacity Btu [kW]	98,000 [28.71]	98,000 [28.71]	98,000 [28.71]	98,000 [28.71]
EER/SEER <sup>2</sup>	11/NA	11/NA	11/NA	11/NA
Nominal CFM/AHRI Rated CFM [L/s]	3000/2925 [1416/1380]	3000/2925 [1416/1380]	3000/2925 [1416/1380]	3000/2925 [1416/1380]
AHRI Net Cooling Capacity Btu [kW]	94,000 [27.54]	94,000 [27.54]	94,000 [27.54]	94,000 [27.54]
Net Sensible Capacity Btu [kW]	70,800 [20.74]	70,800 [20.74]	70,800 [20.74]	70,800 [20.74]
Net Latent Capacity Btu [kW]	23,200 [6.8]	23,200 [6.8]	23,200 [6.8]	23,200 [6.8]
Integrated Part Load Value <sup>3</sup>	N/A	N/A	N/A	N/A
Net System Power kW	8.54	8.54	8.54	8.54
<b>Heating Performance (Heat Pumps)</b>				
Heating Input Btu [kW] Rating	87,000 [25.49]	87,000 [25.49]	87,000 [25.49]	87,000 [25.49]
System Power KW/COP	7.5/3.4	7.5/3.4	7.5/3.4	7.5/3.4
Low Temp. Btuh [kW] Rating	52,000 [15.24]	52,000 [15.24]	52,000 [15.24]	52,000 [15.24]
System Power KW/COP	6.62/2.3	6.62/2.3	6.62/2.3	6.62/2.3
<b>Compressor</b>				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
<b>Outdoor Sound Rating (dB)<sup>4</sup></b>	88	88	88	88
<b>Outdoor Coil—Fin Type</b>	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]	24.88 [2.31]	24.88 [2.31]	24.88 [2.31]	24.88 [2.31]
Rows / FPI [FPcm]	2 / 22 [9]	2 / 22 [9]	2 / 22 [9]	2 / 22 [9]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
<b>Indoor Coil—Fin Type</b>	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]	3 / 18 [7]	3 / 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]
<b>Outdoor Fan—Type</b>	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
<b>Indoor Fan—Type</b>	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	3	2	2
Motor RPM	1725	1725	1725	1725
Motor Frame Size	56	56	56	56
<b>Filter—Type</b>	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]
<b>Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]</b>	350 [9922]	350 [9922]	350 [9922]	350 [9922]
<b>Weights</b>				
Net Weight lbs. [kg]	1009 [458]	1017 [461]	1009 [458]	1009 [458]
Ship Weight lbs. [kg]	1089 [494]	1097 [498]	1089 [494]	1089 [494]

See Page 15 for Notes.

[ ] Designates Metric Conversions

## NOMINAL SIZES 7.5 & 10 TONS [26.4 & 35.2 kW]

Model RJNL- Series	B090YN	B120CL	B120CM	B120DL
<b>Cooling Performance<sup>1</sup></b>				<b>CONTINUED</b> →
Gross Cooling Capacity Btu [kW]	98,000 [28.71]	125,000 [36.62]	125,000 [36.62]	125,000 [36.62]
EER/SEER <sup>2</sup>	11/NA	11/NA	11/NA	11/NA
Nominal CFM/AHRI Rated CFM [L/s]	3000/2925 [1416/1380]	4000/4000 [1888/1888]	4000/4000 [1888/1888]	4000/4000 [1888/1888]
AHRI Net Cooling Capacity Btu [kW]	94,000 [27.54]	120,000 [35.16]	120,000 [35.16]	120,000 [35.16]
Net Sensible Capacity Btu [kW]	70,800 [20.74]	91,600 [26.84]	91,600 [26.84]	91,600 [26.84]
Net Latent Capacity Btu [kW]	23,200 [6.8]	28,400 [8.32]	28,400 [8.32]	28,400 [8.32]
Integrated Part Load Value <sup>3</sup>	N/A	N/A	N/A	N/A
Net System Power kW	8.54	10.91	10.91	10.91
<b>Heating Performance (Heat Pumps)</b>				
Heating Input Btu [kW] Rating	87,000 [25.49]	109,000 [31.94]	109,000 [31.94]	109,000 [31.94]
System Power KW/COP	7.5/3.4	9.39/3.4	9.39/3.4	9.39/3.4
Low Temp. Btuh [kW] Rating	52,000 [15.24]	69,000 [20.22]	69,000 [20.22]	69,000 [20.22]
System Power KW/COP	6.62/2.3	8.79/2.3	8.79/2.3	8.79/2.3
<b>Compressor</b>				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
<b>Outdoor Sound Rating (dB)<sup>4</sup></b>	88	88	88	88
<b>Outdoor Coil—Fin Type</b>	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]	24.88 [2.31]	28.8 [2.68]	28.8 [2.68]	28.8 [2.68]
Rows / FPI [FPcm]	2 / 22 [9]	2 / 22 [9]	2 / 22 [9]	2 / 22 [9]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
<b>Indoor Coil—Fin Type</b>	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]	15.75 [1.46]	15.75 [1.46]	15.75 [1.46]
Rows / FPI [FPcm]	3 / 18 [7]	4 / 15 [6]	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]
<b>Outdoor Fan—Type</b>	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 1/2 HP	2 at 1/2 HP	2 at 1/2 HP
Motor RPM	1075	1075	1075	1075
<b>Indoor Fan—Type</b>	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	2	3	2
Motor RPM	1725	1725	1725	1725
Motor Frame Size	56	56	56	56
<b>Filter—Type</b>	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(No.) Size Recommended in. [mm]	(6)2x18x18 [51x457x457]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]
<b>Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]</b>	350 [9922]	496 [14062]	496 [14062]	496 [14062]
<b>Weights</b>				
Net Weight lbs. [kg]	1017 [461]	1185 [538]	1193 [541]	1185 [538]
Ship Weight lbs. [kg]	1097 [498]	1265 [574]	1273 [577]	1265 [574]

See Page 15 for Notes.

[ ] Designates Metric Conversions

## NOMINAL SIZES 7.5 & 10 TONS [26.4 & 35.2 kW]

Model RJNL- Series	B120DM	B120YL	B120YM
<b>Cooling Performance<sup>1</sup></b>			
Gross Cooling Capacity Btu [kW]	125,000 [36.62]	125,000 [36.62]	125,000 [36.62]
EER/SEER <sup>2</sup>	11/NA	11/NA	11/NA
Nominal CFM/AHRI Rated CFM [L/s]	4000/4000 [1888/1888]	4000/4000 [1888/1888]	4000/4000 [1888/1888]
AHRI Net Cooling Capacity Btu [kW]	120,000 [35.16]	120,000 [35.16]	120,000 [35.16]
Net Sensible Capacity Btu [kW]	91,600 [26.84]	91,600 [26.84]	91,600 [26.84]
Net Latent Capacity Btu [kW]	28,400 [8.32]	28,400 [8.32]	28,400 [8.32]
Integrated Part Load Value <sup>3</sup>	N/A	N/A	N/A
Net System Power kW	10.91	10.91	10.91
<b>Heating Performance (Heat Pumps)</b>			
Heating Input Btu [kW] Rating	109,000 [31.94]	109,000 [31.94]	109,000 [31.94]
System Power KW/COP	9.39/3.4	9.39/3.4	9.39/3.4
Low Temp. Btuh [kW] Rating	69,000 [20.22]	69,000 [20.22]	69,000 [20.22]
System Power KW/COP	8.79/2.3	8.79/2.3	8.79/2.3
<b>Compressor</b>			
No./Type	1/Scroll	1/Scroll	1/Scroll
<b>Outdoor Sound Rating (dB)<sup>4</sup></b>			
	88	88	88
<b>Outdoor Coil—Fin Type</b>			
Tube Type	Louvered	Louvered	Louvered
	Rifled	Rifled	Rifled
Tube Size in. [mm] OD	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	28.8 [2.68]	28.8 [2.68]	28.8 [2.68]
Rows / FPI [FPcm]	2 / 22 [9]	2 / 22 [9]	2 / 22 [9]
Refrigerant Control	TX Valves	TX Valves	TX Valves
<b>Indoor Coil—Fin Type</b>			
Tube Type	Louvered	Louvered	Louvered
	Rifled	Rifled	Rifled
Tube Size in. [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	15.75 [1.46]	15.75 [1.46]	15.75 [1.46]
Rows / FPI [FPcm]	4 / 15 [6]	4 / 15 [6]	4 / 15 [6]
Refrigerant Control	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]
<b>Outdoor Fan—Type</b>			
	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	2/24 [609.6]	2/24 [609.6]	2/24 [609.6]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1
CFM [L/s]	8000 [3775]	8000 [3775]	8000 [3775]
No. Motors/HP	2 at 1/2 HP	2 at 1/2 HP	2 at 1/2 HP
Motor RPM	1075	1075	1075
<b>Indoor Fan—Type</b>			
	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/15x15 [381x381]	1/15x15 [381x381]	1/15x15 [381x381]
Drive Type/No. Speeds	Belt/Variable	Belt/Variable	Belt/Variable
No. Motors	1	1	1
Motor HP	3	2	3
Motor RPM	1725	1725	1725
Motor Frame Size	56	56	56
<b>Filter—Type</b>			
	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes
(No.) Size Recommended in. [mm]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]	(3)2x18x18 [51x457x457] (3)2x18x24 [51x457x610]
<b>Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]</b>			
	496 [14062]	496 [14062]	496 [14062]
<b>Weights</b>			
Net Weight lbs. [kg]	1193 [541]	1185 [538]	1193 [541]
Ship Weight lbs. [kg]	1273 [577]	1265 [574]	1273 [577]

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. AHRI 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 AHRI Standard 210/240 or 360.
2. EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.
3. Integrated Part Load Value is rated in accordance with AHRI Standard 210/240 or 360. Units are rated at 80° F ambient, 80° F entering dry bulb, and 67° F entering wet bulb at AHRI rated cfm.
4. Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.



## COOLING PERFORMANCE DATA—B090

		ENTERING INDOOR AIR @ 80°F [26.7°C] dbE ①									
		71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]			
wbE		3840 [1812]	2925 [1380]	2560 [1208]	3840 [1812]	2925 [1380]	2560 [1208]	3840 [1812]	2925 [1380]	2560 [1208]	
CFM [L/s]		3840 [1812]	2925 [1380]	2560 [1208]	3840 [1812]	2925 [1380]	2560 [1208]	3840 [1812]	2925 [1380]	2560 [1208]	
DR ①		.0	.02	.05	.0	.02	.05	.0	.02	.05	
OUTDOOR DRY BULB TEMPERATURE °F [°C]	75 [23.9]	Total BTUH [kW] Sens BTUH [kW] Power	120.0 [35.2] 95.7 [28.1] 6.4	113.6 [33.3] 77.1 [22.6] 6.2	111.0 [32.5] 70.2 [20.6] 6.2	114.9 [33.7] 111.0 [32.5] 6.3	108.7 [31.9] 90.7 [26.6] 6.1	106.2 [31.1] 83.1 [24.4] 6.0	110.7 [32.4] 110.7 [32.5] 6.1	104.8 [30.7] 100.6 [29.5] 6.0	102.4 [30.0] 92.5 [27.1] 5.9
	80 [26.7]	Total BTUH [kW] Sens BTUH [kW] Power	117.6 [34.5] 90.2 [26.4] 6.7	111.2 [32.6] 72.3 [21.2] 6.5	108.7 [31.9] 65.7 [19.3] 6.5	112.4 [32.9] 105.4 [30.9] 6.6	106.4 [31.2] 86.0 [25.2] 6.4	104.0 [30.5] 78.7 [23.1] 6.3	108.3 [31.7] 108.3 [31.7] 6.4	102.4 [30.0] 95.8 [28.1] 6.3	100.1 [29.3] 88.1 [25.8] 6.2
	85 [29.4]	Total BTUH [kW] Sens BTUH [kW] Power	114.8 [33.6] 85.0 [24.9] 7.1	108.6 [31.8] 68.0 [19.9] 6.9	106.1 [31.1] 61.7 [18.1] 6.8	109.6 [32.1] 100.3 [29.4] 6.9	103.7 [30.4] 81.6 [23.9] 6.7	101.4 [29.7] 74.7 [21.9] 6.6	105.5 [30.9] 105.5 [30.9] 6.8	99.8 [29.2] 91.5 [26.8] 6.6	97.5 [28.6] 84.0 [24.6] 6.5
	90 [32.2]	Total BTUH [kW] Sens BTUH [kW] Power	111.7 [32.7] 80.4 [23.6] 7.4	105.7 [31.0] 64.2 [18.8] 7.2	103.3 [30.3] 58.2 [17.1] 7.1	106.6 [31.2] 95.8 [28.1] 7.3	100.8 [29.5] 77.8 [22.8] 7.1	98.5 [28.9] 71.1 [20.8] 7.0	102.4 [30.0] 102.4 [30.0] 7.1	96.9 [28.4] 87.7 [25.7] 6.9	94.7 [27.8] 80.5 [23.6] 6.9
	95 [35]	Total BTUH [kW] Sens BTUH [kW] Power	108.3 [31.7] 76.3 [22.4] 7.8	102.5 [30.0] 60.8 [17.8] 7.6	100.2 [29.4] 55.1 [16.2] 7.5	103.2 [30.2] 91.7 [26.9] 7.7	97.6 [28.6] 74.4 [21.8] 7.5	95.4 [28.0] 68.0 [19.9] 7.4	99.0 [29.0] 99.0 [29.0] 7.5	93.7 [27.5] 84.3 [24.7] 7.3	91.6 [26.8] 77.4 [22.7] 7.3
	100 [37.8]	Total BTUH [kW] Sens BTUH [kW] Power	104.7 [30.7] 72.9 [21.4] 8.3	99.0 [29.0] 57.9 [17.0] 8.0	96.8 [28.4] 52.5 [15.4] 7.9	99.5 [29.2] 88.1 [25.8] 8.1	94.2 [27.6] 71.6 [21.0] 7.9	92.0 [27.0] 65.4 [19.2] 7.8	95.4 [28.0] 95.4 [28.0] 8.0	90.2 [26.4] 81.4 [23.9] 7.8	88.2 [25.8] 74.8 [21.9] 7.7
	105 [40.6]	Total BTUH [kW] Sens BTUH [kW] Power	100.7 [29.5] 69.9 [20.5] 8.7	95.3 [27.9] 55.6 [16.3] 8.5	93.1 [27.3] 50.3 [14.8] 8.4	95.6 [28.0] 85.3 [25.0] 8.6	90.4 [26.5] 69.2 [20.3] 8.3	88.4 [25.9] 63.3 [18.6] 8.3	91.4 [26.8] 91.4 [26.8] 8.4	86.5 [25.4] 79.1 [23.2] 8.2	84.5 [24.8] 72.6 [21.3] 8.1
	110 [43.3]	Total BTUH [kW] Sens BTUH [kW] Power	96.4 [28.3] 67.4 [19.8] 9.2	91.2 [26.7] 53.6 [15.7] 9.0	89.2 [26.1] 48.6 [14.3] 8.9	91.3 [26.8] 82.7 [24.2] 9.1	86.4 [25.3] 67.3 [19.7] 8.8	84.4 [24.7] 61.5 [18.0] 8.7	87.1 [25.5] 87.1 [25.5] 8.9	82.4 [24.1] 77.2 [22.6] 8.7	80.6 [23.6] 71.0 [20.8] 8.6
	115 [46.1]	Total BTUH [kW] Sens BTUH [kW] Power	91.8 [26.9] 65.6 [19.2] 9.7	86.9 [25.5] 52.3 [15.3] 9.5	84.9 [24.9] 47.4 [13.9] 9.4	86.7 [25.4] 80.8 [23.7] 9.6	82.0 [24.0] 65.8 [19.3] 9.3	80.2 [23.5] 60.3 [17.7] 9.2	82.5 [24.2] 82.5 [24.2] 9.4	78.1 [22.9] 75.8 [22.2] 9.2	76.3 [22.4] 69.7 [20.4] 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)].

## HEATING PERFORMANCE DATA—B090

		60°F [15.5°C]			70°F [21.1°C]			80°F [26.7°C]			
IDB		3840 [1812]	2925 [1380]	2560 [1208]	3840 [1812]	2925 [1380]	2560 [1208]	3840 [1812]	2925 [1380]	2560 [1208]	
CFM [L/s]		3840 [1812]	2925 [1380]	2560 [1208]	3840 [1812]	2925 [1380]	2560 [1208]	3840 [1812]	2925 [1380]	2560 [1208]	
OUTDOOR DRY BULB TEMPERATURE °F [°C]	0 [-17.8]	Total BTUH [kW] Power	33.5 [9.82] 9.6	32.8 [9.61] 10.0	32.5 [9.52] 10.1	30.1 [8.82] 9.6	29.4 [8.62] 10.0	29.2 [8.56] 10.1	26.7 [7.82] 9.6	26.1 [7.65] 10.0	25.8 [7.56] 10.1
	5 [26.7]	Total BTUH [kW] Power	39.4 [11.55] 9.2	38.5 [11.28] 9.6	38.2 [11.20] 9.7	36.0 [10.55] 9.2	35.2 [10.32] 9.6	34.9 [10.23] 9.7	32.5 [9.52] 9.2	31.8 [9.32] 9.6	31.5 [9.23] 9.7
	10 [-12.2]	Total BTUH [kW] Power	45.3 [13.28] 8.9	44.3 [12.98] 9.2	43.9 [12.87] 9.4	41.8 [12.25] 8.9	40.9 [11.99] 9.2	40.5 [11.87] 9.4	38.4 [11.25] 8.9	37.5 [10.99] 9.2	37.2 [10.90] 9.4
	15 [32.2]	Total BTUH [kW] Power	51.1 [14.98] 8.5	50.0 [14.65] 8.8	49.6 [14.54] 9.0	47.7 [13.98] 8.5	46.6 [13.66] 8.8	46.2 [13.54] 9.0	44.3 [12.98] 8.5	43.3 [12.69] 8.8	42.9 [12.57] 9.0
	20 [-6.6]	Total BTUH [kW] Power	57.0 [16.71] 8.1	55.7 [16.32] 8.5	55.2 [16.18] 8.6	53.6 [15.71] 8.1	52.4 [15.36] 8.5	51.9 [15.21] 8.6	50.1 [14.68] 8.1	49.0 [14.36] 8.5	48.6 [14.24] 8.6
	25 [37.8]	Total BTUH [kW] Power	62.9 [18.43] 7.8	61.5 [18.02] 8.1	60.9 [17.85] 8.2	59.4 [17.41] 7.8	58.1 [17.03] 8.1	57.6 [16.88] 8.2	56.0 [16.41] 7.8	54.8 [16.06] 8.1	54.3 [15.91] 8.2
	30 [-1.1]	Total BTUH [kW] Power	68.7 [20.13] 7.4	67.2 [19.69] 7.7	66.6 [19.52] 7.8	65.3 [19.14] 7.4	63.9 [18.73] 7.7	63.3 [18.55] 7.8	61.8 [18.11] 7.4	60.5 [17.73] 7.7	60.0 [17.58] 7.8
	35 [43.3]	Total BTUH [kW] Power	74.6 [21.86] 7.0	73.0 [21.39] 7.3	72.3 [21.19] 7.4	71.1 [20.84] 7.0	69.6 [20.40] 7.3	69.0 [20.22] 7.4	67.7 [19.84] 7.0	66.2 [19.40] 7.3	65.6 [19.23] 7.4
	40 [4.4]	Total BTUH [kW] Power	80.4 [23.56] 6.7	78.7 [23.06] 7.0	78.0 [22.86] 7.1	77.0 [22.57] 6.7	75.3 [22.07] 7.0	74.7 [21.89] 7.1	73.6 [21.57] 6.7	72.0 [21.10] 7.0	71.3 [20.90] 7.1
	45 [46.1]	Total BTUH [kW] Power	86.3 [25.29] 6.3	84.4 [24.74] 6.6	83.7 [24.53] 6.7	82.9 [24.30] 6.3	81.1 [23.77] 6.6	80.3 [23.53] 6.7	79.4 [23.27] 6.3	77.7 [22.77] 6.6	77.0 [22.57] 6.7
50 [10]	Total BTUH [kW] Power	92.2 [27.02] 6.0	90.2 [26.44] 6.2	89.4 [26.20] 6.3	88.7 [26.00] 6.0	86.8 [25.44] 6.2	86.0 [25.20] 6.3	85.3 [25.00] 6.0	83.4 [24.44] 6.2	82.7 [24.24] 6.3	

IDB—Indoor air dry bulb

[ ] Designates Metric Conversions







## COOLING PERFORMANCE DATA—B120

		ENTERING INDOOR AIR @ 80°F [26.7°C] dbE ①									
		71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]			
wbE		4560 [2152]	4000 [1888]	3040 [1435]	4560 [2152]	4000 [1888]	3040 [1435]	4560 [2152]	4000 [1888]	3040 [1435]	
CFM [L/s]		4560 [2152]	4000 [1888]	3040 [1435]	4560 [2152]	4000 [1888]	3040 [1435]	4560 [2152]	4000 [1888]	3040 [1435]	
DR ①		.03	.05	.01	.03	.05	.01	.03	.05	.01	
OUTDOOR DRY BULB TEMPERATURE °F [°C]	75 [23.9]	Total BTUH [kW] Sens BTUH [kW] Power	151.2 [44.3] 115.7 [33.9] 8.0	147.4 [43.2] 104.8 [30.7] 7.9	141.0 [41.3] 87.4 [25.6] 7.8	141.4 [41.4] 132.2 [38.8] 8.0	137.9 [40.4] 120.6 [35.4] 7.9	131.8 [38.6] 101.7 [29.8] 7.7	135.2 [39.6] 135.2 [39.6] 7.9	131.8 [38.6] 131.8 [38.6] 7.8	126.1 [37.0] 113.0 [33.1] 7.6
	80 [26.7]	Total BTUH [kW] Sens BTUH [kW] Power	148.0 [43.4] 107.4 [31.5] 8.4	144.4 [42.3] 97.2 [28.5] 8.3	138.1 [40.5] 80.7 [23.7] 8.1	138.2 [40.5] 124.0 [36.4] 8.3	134.8 [39.5] 113.0 [33.1] 8.2	128.9 [37.8] 95.1 [27.9] 8.0	132.0 [38.7] 132.0 [38.7] 8.2	128.7 [37.7] 125.3 [36.7] 8.1	123.1 [36.1] 106.3 [31.2] 8.0
	85 [29.4]	Total BTUH [kW] Sens BTUH [kW] Power	144.8 [42.4] 100.5 [29.5] 8.8	141.2 [41.4] 90.7 [26.6] 8.7	135.0 [39.6] 75.0 [22.0] 8.5	134.9 [39.5] 116.9 [34.3] 8.7	131.6 [38.6] 106.4 [31.2] 8.6	125.8 [36.9] 89.3 [26.2] 8.4	128.7 [37.7] 128.7 [37.7] 8.6	125.5 [36.8] 118.7 [34.8] 8.5	120.1 [35.2] 100.6 [29.5] 8.3
	90 [32.2]	Total BTUH [kW] Sens BTUH [kW] Power	141.4 [41.4] 94.5 [27.7] 9.2	137.9 [40.4] 85.2 [25.0] 9.1	131.9 [38.7] 70.3 [20.6] 8.9	131.6 [38.6] 111.0 [32.5] 9.1	128.3 [37.6] 100.9 [29.6] 9.0	122.7 [36.0] 84.6 [24.8] 8.8	125.4 [36.8] 124.1 [36.4] 9.0	122.3 [35.8] 113.4 [33.2] 8.9	116.9 [34.3] 95.9 [28.1] 8.7
	95 [35]	Total BTUH [kW] Sens BTUH [kW] Power	138.0 [40.4] 89.8 [26.3] 9.7	134.6 [39.4] 80.9 [23.7] 9.5	128.7 [37.7] 66.6 [19.5] 9.3	128.2 [37.6] 106.3 [31.2] 9.6	125.0 [36.6] 96.6 [28.3] 9.4	119.5 [35.0] 80.9 [23.7] 9.2	122.0 [35.8] 119.3 [35.0] 9.5	118.9 [34.8] 108.9 [31.9] 9.4	113.7 [33.3] 92.1 [27.0] 9.2
	100 [37.8]	Total BTUH [kW] Sens BTUH [kW] Power	134.5 [39.4] 86.3 [25.3] 10.1	131.2 [38.5] 77.7 [22.8] 10.0	125.4 [36.8] 63.8 [18.7] 9.8	124.7 [36.5] 102.8 [30.1] 10.0	121.6 [35.6] 93.4 [27.4] 9.9	116.3 [34.1] 78.2 [22.9] 9.7	118.5 [34.7] 115.8 [33.9] 9.9	115.5 [33.8] 105.7 [31.0] 9.8	110.5 [32.4] 89.4 [26.2] 9.6
	105 [40.6]	Total BTUH [kW] Sens BTUH [kW] Power	130.9 [38.4] 83.8 [24.6] 10.6	127.6 [37.4] 75.4 [22.1] 10.5	122.1 [35.8] 62.1 [18.2] 10.3	121.1 [35.5] 100.4 [29.4] 10.5	118.1 [34.6] 91.2 [26.7] 10.4	112.9 [33.1] 76.4 [22.4] 10.2	114.9 [33.7] 113.5 [33.3] 10.4	112.0 [32.8] 103.6 [30.4] 10.3	107.1 [31.4] 87.6 [25.7] 10.1
	110 [43.3]	Total BTUH [kW] Sens BTUH [kW] Power	127.2 [37.3] 82.6 [24.2] 11.1	124.1 [36.4] 74.4 [21.8] 11.0	118.6 [34.8] 61.2 [17.9] 10.8	117.4 [34.4] 99.1 [29.1] 11.1	114.5 [33.6] 90.1 [26.4] 10.9	109.5 [32.1] 75.6 [22.2] 10.7	111.2 [32.6] 111.2 [32.6] 11.0	108.4 [31.8] 102.5 [30.0] 10.8	103.7 [30.4] 86.8 [25.4] 10.6
	115 [46.1]	Total BTUH [kW] Sens BTUH [kW] Power	123.5 [36.2] 82.6 [24.2] 11.7	120.4 [35.3] 74.4 [21.8] 11.6	115.1 [33.7] 61.4 [18.0] 11.3	113.6 [33.3] 99.0 [29.0] 11.6	110.8 [32.5] 90.1 [26.4] 11.5	106.0 [31.1] 75.7 [22.2] 11.2	107.4 [31.5] 107.4 [31.5] 11.5	104.7 [30.7] 102.5 [30.0] 11.4	100.2 [29.4] 87.0 [25.5] 11.1

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  $[1.10 \times \text{CFM} \times (1 - \text{DR}) \times (\text{dbE} - 80)]$ .

## HEATING PERFORMANCE DATA—B120

		IDB			60°F [15.5°C]			70°F [21.1°C]			80°F [26.7°C]		
		CFM [L/s]			4560 [2152]	4000 [1888]	3040 [1435]	4560 [2152]	4000 [1888]	3040 [1435]	4560 [2152]	4000 [1888]	3040 [1435]
OUTDOOR DRY BULB TEMPERATURE °F [°C]	0 [-17.8]	Total BTUH [kW] Power	45.2 [13.25] 11.3	44.7 [13.10] 11.5	43.9 [12.87] 11.8	41.7 [12.22] 11.3	41.3 [12.10] 11.5	40.6 [11.90] 11.8	38.3 [11.22] 11.3	37.9 [11.11] 11.5	37.3 [10.93] 11.8		
	5 [26.7]	Total BTUH [kW] Power	51.9 [15.21] 10.9	51.4 [15.06] 11.1	50.5 [14.80] 11.4	48.5 [14.21] 10.9	48.0 [14.07] 11.1	47.2 [13.83] 11.4	45.0 [13.19] 10.9	44.6 [13.07] 11.1	43.8 [12.84] 11.4		
	10 [-12.2]	Total BTUH [kW] Power	58.6 [17.17] 10.5	58.0 [17.00] 10.7	57.1 [16.73] 11.0	55.2 [16.18] 10.5	54.7 [16.03] 10.7	53.7 [15.74] 11.0	51.8 [15.18] 10.5	51.3 [15.03] 10.7	50.4 [14.77] 11.0		
	15 [32.2]	Total BTUH [kW] Power	65.4 [19.17] 10.2	64.7 [18.96] 10.3	63.6 [18.64] 10.7	61.9 [18.14] 10.2	61.3 [17.97] 10.3	60.3 [17.67] 10.7	58.5 [17.14] 10.2	57.9 [16.97] 10.3	56.9 [16.68] 10.7		
	20 [-6.6]	Total BTUH [kW] Power	72.1 [21.13] 9.8	71.4 [20.93] 10.0	70.2 [20.57] 10.3	68.7 [20.13] 9.8	68.0 [19.93] 10.0	66.8 [19.58] 10.3	65.2 [19.11] 9.8	64.6 [18.93] 10.0	63.5 [18.61] 10.3		
	25 [37.8]	Total BTUH [kW] Power	78.8 [23.09] 9.4	78.1 [22.89] 9.6	76.7 [22.48] 9.9	75.4 [22.10] 9.4	74.7 [21.89] 9.6	73.4 [21.51] 9.9	72.0 [21.10] 9.4	71.3 [20.90] 9.6	70.0 [20.51] 9.9		
	30 [-1.1]	Total BTUH [kW] Power	85.6 [25.09] 9.1	84.7 [24.82] 9.2	83.3 [24.41] 9.5	82.2 [24.09] 9.1	81.3 [23.83] 9.2	79.9 [23.42] 9.5	78.7 [23.06] 9.1	77.9 [22.83] 9.2	76.6 [22.45] 9.5		
	35 [43.3]	Total BTUH [kW] Power	92.3 [27.05] 8.7	91.4 [26.79] 8.8	89.8 [26.32] 9.1	88.9 [26.05] 8.7	88.0 [25.79] 8.8	86.5 [25.35] 9.1	85.5 [25.06] 8.7	84.6 [24.79] 8.8	83.2 [24.38] 9.1		
	40 [4.4]	Total BTUH [kW] Power	99.1 [29.04] 8.3	98.1 [28.75] 8.5	96.4 [28.25] 8.7	95.6 [28.02] 8.3	94.7 [27.75] 8.5	93.1 [27.28] 8.7	92.2 [27.02] 8.3	91.3 [26.76] 8.5	89.7 [26.29] 8.7		
	45 [46.1]	Total BTUH [kW] Power	105.8 [31.01] 7.9	104.7 [30.68] 8.1	103.0 [30.19] 8.3	102.4 [30.01] 7.9	101.3 [29.69] 8.1	99.6 [29.19] 8.3	98.9 [28.98] 7.9	98.0 [28.72] 8.1	96.3 [28.22] 8.3		
50 [10]	Total BTUH [kW] Power	112.5 [32.97] 7.6	111.4 [32.65] 7.7	109.5 [32.09] 7.9	109.1 [31.97] 7.6	108.0 [31.65] 7.7	106.2 [31.12] 7.9	105.7 [30.98] 7.6	104.6 [30.66] 7.7	102.8 [30.13] 7.9			

IDB—Indoor air dry bulb

[ ] Designates Metric Conversions



# AIRFLOW PERFORMANCE—7.5 TON [26.4 kW] — SIDEFLOW

Air Flow CFM [L/s]	External Static Pressure—Inches of Water [kPa]																			
	Model RJNL-B090									Voltage 208/230, 460, 575—3 Phase										
	0.1 [1.02]	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]	—	550 [810]	582 [845]	614 [883]	645 [924]	677 [968]	708 [1015]	740 [1066]	771 [1119]	802 [1175]	833 [1234]	864 [1296]	895 [1361]	924 [1435]	955 [1508]	985 [1584]	1016 [1663]	1046 [1744]	1077 [1829]	1107 [1916]
2500 [1180]	—	559 [839]	590 [876]	622 [916]	653 [959]	684 [1004]	715 [1053]	745 [1105]	776 [1160]	807 [1218]	837 [1279]	867 [1343]	897 [1410]	927 [1490]	957 [1564]	987 [1641]	1017 [1721]	1047 [1804]	1077 [1890]	1107 [1979]
2600 [1227]	—	569 [872]	600 [910]	630 [952]	661 [997]	691 [1044]	722 [1095]	752 [1149]	782 [1205]	812 [1265]	842 [1328]	871 [1394]	901 [1462]	931 [1546]	961 [1622]	990 [1701]	1019 [1782]	1049 [1866]	1078 [1954]	1107 [2044]
2700 [1274]	549 [870]	579 [908]	610 [948]	640 [992]	670 [1038]	699 [1088]	729 [1140]	759 [1196]	788 [1255]	818 [1316]	847 [1381]	876 [1448]	905 [1519]	935 [1606]	964 [1683]	993 [1763]	1022 [1846]	1050 [1931]	1079 [2020]	1107 [2111]
2800 [1321]	561 [909]	591 [948]	620 [990]	650 [1036]	679 [1084]	708 [1135]	737 [1190]	766 [1247]	795 [1308]	824 [1371]	853 [1437]	881 [1507]	910 [1579]	940 [1667]	968 [1746]	996 [1827]	1025 [1911]	1052 [1998]	1080 [2088]	1108 [2181]
2900 [1368]	573 [951]	602 [992]	631 [1036]	660 [1083]	689 [1134]	718 [1187]	746 [1243]	775 [1302]	803 [1365]	831 [1430]	860 [1498]	888 [1569]	915 [1644]	945 [1732]	973 [1811]	1000 [1894]	1028 [1980]	1055 [2068]	1082 [2159]	1109 [2253]
3000 [1416]	586 [997]	615 [1040]	643 [1086]	672 [1135]	700 [1187]	728 [1242]	756 [1300]	784 [1361]	812 [1425]	839 [1492]	867 [1563]	894 [1636]	923 [1720]	951 [1798]	977 [1879]	1004 [1963]	1031 [2050]	1058 [2140]	1084 [2233]	1111 [2328]
3100 [1463]	600 [1047]	628 [1092]	656 [1140]	684 [1190]	711 [1244]	739 [1301]	766 [1361]	794 [1424]	821 [1490]	848 [1559]	875 [1631]	902 [1706]	929 [1787]	956 [1867]	982 [1950]	1009 [2035]	1035 [2123]	1061 [2215]	1087 [2309]	1113 [2405]
3200 [1510]	615 [1101]	642 [1147]	669 [1197]	697 [1250]	724 [1305]	751 [1364]	777 [1426]	804 [1491]	831 [1558]	857 [1629]	884 [1703]	910 [1780]	936 [1857]	962 [1939]	988 [2022]	1013 [2109]	1039 [2199]	1064 [2291]	1090 [2387]	1115 [2485]
3300 [1557]	630 [1158]	657 [1207]	683 [1258]	710 [1313]	736 [1370]	763 [1431]	789 [1495]	815 [1561]	841 [1631]	867 [1703]	893 [1779]	919 [1858]	943 [1930]	968 [2012]	993 [2098]	1018 [2186]	1043 [2277]	1068 [2371]	1093 [2468]	1117 [2567]
3400 [1604]	646 [1220]	672 [1270]	698 [1324]	724 [1380]	750 [1439]	776 [1502]	801 [1567]	827 [1636]	852 [1707]	878 [1781]	903 [1859]	925 [1924]	950 [2005]	975 [2089]	999 [2175]	1024 [2265]	1048 [2357]	1072 [2453]	1096 [2551]	1120 [2652]
3500 [1652]	662 [1285]	688 [1337]	713 [1393]	739 [1451]	764 [1512]	789 [1576]	814 [1644]	839 [1714]	864 [1787]	889 [1863]	914 [1943]	933 [2000]	958 [2082]	982 [2167]	1006 [2255]	1029 [2346]	1053 [2440]	1077 [2537]	1100 [2636]	1124 [2739]
3600 [1699]	679 [1355]	704 [1409]	729 [1466]	754 [1526]	779 [1589]	804 [1655]	828 [1724]	853 [1796]	877 [1871]	901 [1949]	918 [1998]	942 [2078]	966 [2162]	989 [2249]	1012 [2338]	1035 [2430]	1058 [2525]	1081 [2623]	1104 [2724]	1127 [2823]

NOTE: L-Drive left section, M-Drive center section, N-Drive right section.

Drive Package	L						M						N					
Motor H.P. [W]	2.0 [1491.4]						3.0 [2237.1]						3.0 [2237.1]					
Blower Sheave	BK110H						BK90H						BK65H					
Motor Sheave	1VP-44						1VP-44						1VP-44					
Turns Open	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
RPM	708	676	646	612	580	548	868	830	794	752	713	673	1192	1134	1085	1031	979	919

NOTES: 1. Factory sheave settings are shown in bold type.

2. Do not set motor sheave below minimum or maximum turns open shown.

3. Re-adjustment of sheave required to achieve rated airflow at AHR minimum External Static Pressure

4. Drive data shown is for horizontal airflow with dry coil. Add component resistance (below) to duct resistance to determine total External Static Pressure.

# AIRFLOW CORRECTION FACTORS—7.5 TON [26.4 kW]

ACTUAL—CFM [L/s]	2400 [1133]	2500 [1180]	2600 [1227]	2700 [1274]	2800 [1321]	2900 [1368]	3000 [1416]	3100 [1463]	3200 [1510]	3300 [1557]	3400 [1604]	3500 [1652]	3600 [1699]
TOTAL MBH	0.97	0.97	0.98	0.98	0.99	1.00	1.00	1.01	1.02	1.02	1.02	1.02	1.02
SENSIBLE MBH	0.87	0.90	0.92	0.94	0.97	0.99	1.02	1.04	1.06	1.06	1.06	1.06	1.06
POWER kW	0.98	0.98	0.99	0.99	1.00	1.00	1.00	1.01	1.01	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

# COMPONENT AIRFLOW RESISTANCE—7.5 TON [26.4 kW]

Component	Standard Indoor Airflow—CFM [L/s]												
	Resistance—Inches Water [kPa]						Resistance—Inches Water [kPa]						
	2400 [1133]	2500 [1180]	2600 [1227]	2700 [1274]	2800 [1321]	2900 [1368]	3000 [1416]	3100 [1463]	3200 [1510]	3300 [1557]	3400 [1604]	3500 [1652]	3600 [1699]
Wet Coil	0.09 [0.02]	0.10 [0.02]	0.10 [0.02]	0.11 [0.02]	0.11 [0.03]	0.11 [0.03]	0.12 [0.03]	0.12 [0.03]	0.13 [0.03]	0.13 [0.03]	0.13 [0.03]	0.14 [0.03]	0.14 [0.03]
Downflow	0.08 [0.02]	0.08 [0.02]	0.09 [0.02]	0.09 [0.02]	0.10 [0.03]	0.10 [0.03]	0.10 [0.03]	0.11 [0.03]	0.11 [0.03]	0.11 [0.03]	0.11 [0.03]	0.11 [0.03]	0.11 [0.03]
Downflow Economizer RA	0.10 [0.02]	0.10 [0.02]	0.11 [0.02]	0.11 [0.02]	0.12 [0.03]	0.12 [0.03]	0.12 [0.03]	0.13 [0.03]	0.13 [0.03]	0.13 [0.03]	0.14 [0.03]	0.14 [0.03]	0.15 [0.04]
Damper Open	0.02 [0.02]	0.02 [0.02]	0.03 [0.03]	0.03 [0.03]	0.03 [0.03]	0.03 [0.03]	0.03 [0.03]	0.03 [0.03]	0.03 [0.03]	0.03 [0.03]	0.04 [0.04]	0.04 [0.04]	0.04 [0.04]
Horizontal Economizer RA	0.10 [0.02]	0.10 [0.02]	0.11 [0.03]	0.11 [0.03]	0.12 [0.03]	0.12 [0.03]	0.12 [0.03]	0.13 [0.03]	0.13 [0.03]	0.13 [0.03]	0.14 [0.03]	0.14 [0.03]	0.15 [0.04]
Damper Open	0.02 [0.02]	0.02 [0.02]	0.03 [0.03]	0.03 [0.03]	0.03 [0.03]	0.03 [0.03]	0.03 [0.03]	0.03 [0.03]	0.03 [0.03]	0.03 [0.03]	0.04 [0.04]	0.04 [0.04]	0.04 [0.04]
Concentric Grill with RXRN-FA65 or RXRN-FA75 with Transition RXM-C-CC04	0.13 [0.03]	0.15 [0.04]	0.17 [0.04]	0.19 [0.05]	0.21 [0.05]	0.21 [0.05]	0.23 [0.06]	0.25 [0.06]	0.28 [0.07]	0.31 [0.08]	0.34 [0.09]	0.40 [0.10]	0.44 [0.11]

# BELT DRIVE AIRFLOW PERFORMANCE—10 TON [35.1 kW] — SIDEFLOW

Air Flow CFM [L/s]	Model RJNL-B120																			
	Voltage 208/230, 460, 575—3 Phase																			
	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]
3200 [1510]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3300 [1557]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3400 [1604]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3500 [1652]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3600 [1699]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3800 [1793]	669	1354	697	1425	725	1496	752	1569	779	1643	805	1717	831	1792	857	1869	882	1946	906	2024
3900 [1840]	682	1428	710	1502	738	1576	765	1651	791	1728	817	1805	843	1883	868	1961	893	2041	917	2122
4000 [1888]	696	1507	724	1584	751	1661	777	1738	804	1817	829	1897	855	1977	880	2059	904	2141	928	2224
4100 [1935]	710	1592	737	1670	764	1750	790	1830	816	1912	842	1994	867	2077	891	2161	915	2246	939	2332
4200 [1982]	724	1680	751	1762	777	1844	803	1927	829	2011	854	2096	879	2181	903	2268	927	2356	950	2444
4300 [2029]	738	1774	764	1858	791	1943	816	2028	842	2115	866	2202	891	2291	915	2380	938	2470	961	2561
4400 [2076]	752	1873	778	1959	804	2046	829	2135	854	2224	879	2314	903	2405	926	2497	950	2589	972	2683
4500 [2123]	766	1976	792	2065	818	2155	843	2246	867	2338	892	2430	915	2524	939	2618	961	2714	984	2810
4600 [2171]	781	2084	806	2176	831	2268	856	2362	880	2456	904	2551	928	2648	951	2745	973	2842	995	2941
4700 [2218]	795	2197	820	2291	845	2386	870	2483	894	2579	917	2677	940	2776	963	2876	985	2976	1007	3078
4800 [2265]	810	2315	835	2412	859	2509	883	2608	907	2708	930	2808	953	2909	975	3012	997	3115	1018	3219

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

Drive Package	L						M					
	1	2	3	4	5	6	1	2	3	4	5	6
Motor H.P. [W]	2.0 [1491.4]						3.0 [2237.1]					
Blower Sheave	BK30H						BK65H					
Motor Sheave	1VP-44						1VP-44					
Turns Open	1	2	3	4	5	6	1	2	3	4	5	6
RPM	853	816	779	739	700	661	1179	1127	1074	1018	968	915

- NOTES: 1. Factory sheave settings are shown in bold type.  
 2. Do not set motor sheave below minimum or maximum turns open shown.  
 3. Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure  
 4. Drive data shown is for horizontal airflow with dry coil. Add component resistance (below) to duct resistance to determine total External Static Pressure.

# AIRFLOW CORRECTION FACTORS—10 TON [35.1 kW]

ACTUAL—CFM [L/s]	3200 [1510]	3300 [1557]	3400 [1604]	3500 [1652]	3600 [1699]	3700 [1746]	3800 [1793]	3900 [1840]	4000 [1888]	4100 [1935]	4200 [1982]	4300 [2029]	4400 [2076]	4500 [2123]	4600 [2171]	4700 [2218]	4800 [2265]
TOTAL MBH	0.97	0.97	0.98	0.98	0.99	1.00	1.00	1.00	1.01	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
SENSIBLE MBH	0.87	0.80	0.92	0.94	0.97	0.99	1.02	1.04	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
POWER kW	0.98	0.98	0.99	0.99	1.00	1.00	1.00	1.01	1.01	1.01	1.01	1.01	1.01	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

# COMPONENT AIRFLOW RESISTANCE—10 TON [35.1 kW]

Component	Standard Indoor Airflow—CFM [L/s]																	
	Resistance—Inches Water [kPa]																	
	3200 [1510]	3300 [1557]	3400 [1604]	3500 [1652]	3600 [1699]	3700 [1746]	3800 [1793]	3900 [1840]	4000 [1888]	4100 [1935]	4200 [1982]	4300 [2029]	4400 [2076]	4500 [2123]	4600 [2171]	4700 [2218]	4800 [2265]	
Wet Coil	0.07 [0.02]	0.07 [0.02]	0.07 [0.02]	0.07 [0.02]	0.08 [0.02]	0.08 [0.02]	0.08 [0.02]	0.09 [0.02]	0.09 [0.02]	0.09 [0.02]	0.10 [0.02]	0.10 [0.02]	0.10 [0.02]	0.10 [0.02]	0.10 [0.02]	0.10 [0.02]	0.11 [0.03]	
Downflow Economizer RA	0.09 [0.02]	0.10 [0.02]	0.10 [0.02]	0.11 [0.03]	0.11 [0.03]	0.12 [0.03]	0.12 [0.03]	0.13 [0.03]	0.13 [0.03]	0.14 [0.03]	0.14 [0.03]	0.14 [0.03]	0.15 [0.04]	0.15 [0.04]	0.16 [0.04]	0.17 [0.04]	0.17 [0.04]	
Damper Open	0.05 [0.01]	0.05 [0.01]	0.06 [0.01]	0.06 [0.01]	0.06 [0.01]	0.06 [0.01]	0.07 [0.01]	0.07 [0.01]	0.07 [0.01]	0.07 [0.01]	0.08 [0.01]	0.08 [0.01]	0.08 [0.01]	0.08 [0.01]	0.09 [0.01]	0.09 [0.01]	0.10 [0.01]	
Horizontal Economizer RA	0.11 [0.03]	0.12 [0.03]	0.12 [0.03]	0.13 [0.03]	0.13 [0.03]	0.14 [0.03]	0.14 [0.03]	0.15 [0.03]	0.15 [0.03]	0.16 [0.04]	0.16 [0.04]	0.17 [0.04]	0.17 [0.04]	0.18 [0.04]	0.19 [0.05]	0.19 [0.05]	0.20 [0.05]	
Horizontal Economizer OA	0.31 [0.08]	0.34 [0.08]	0.37 [0.09]	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	
Concentric Grill (RXRN-FA65 or RXRN-FA75) with Transition RXMC-CD04	0.18 [0.04]	0.18 [0.04]	0.18 [0.04]	0.18 [0.04]	0.18 [0.04]	0.18 [0.04]	0.18 [0.04]	0.18 [0.04]	0.18 [0.04]	0.18 [0.04]	0.18 [0.04]	0.18 [0.04]	0.18 [0.04]	0.18 [0.04]	0.18 [0.04]	0.18 [0.04]	0.18 [0.04]	
Concentric Grill (RXRN-AA61 or RXRN-AA71) with Transition RXMC-CE05	0.24 [0.06]	0.24 [0.06]	0.24 [0.06]	0.24 [0.06]	0.24 [0.06]	0.24 [0.06]	0.24 [0.06]	0.24 [0.06]	0.24 [0.06]	0.24 [0.06]	0.24 [0.06]	0.24 [0.06]	0.24 [0.06]	0.24 [0.06]	0.24 [0.06]	0.24 [0.06]	0.24 [0.06]	
Concentric Grill (RXRN-AA76) with Transition RXMC-CF06	0.31 [0.08]	0.31 [0.08]	0.31 [0.08]	0.31 [0.08]	0.31 [0.08]	0.31 [0.08]	0.31 [0.08]	0.31 [0.08]	0.31 [0.08]	0.31 [0.08]	0.31 [0.08]	0.31 [0.08]	0.31 [0.08]	0.31 [0.08]	0.31 [0.08]	0.31 [0.08]	0.31 [0.08]	



208/240 VOLT, THREE PHASE, 60 HZ, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION													
Separate Power Supply for Both Unit and Heater Kit													
Model No. RJNL-	Single Power Supply for Both Unit and Heater Kit					Heater Kit				Heat Pump			
	RXJJ-Heater Kit Nominal kW	No. of Sequence Steps	Rated Heater kW @ 208/240V	Heater kBTU/Hr @ 208/240V	Heater Amps @ 208/240V	Unit Min. Ckt. Ampacity @ 208/240V	Protective Device Size Min./Max. 208V	Over Current Protective Device Size Min./Max. 240V	Min. Ckt. Ampacity 208/240V	Max. Fuse Size 208/240V	Min. Circuit Ampacity 208/240V	Heat Pump Min./Max. 208V	Over Current Protective Device Size Min./Max. 240V
B090CL	No Heat	—	—	—	—	43/43	50/60	50/60	—	—	43/43	50/60	50/60
	CC15C	1	10.8/14.4	36.84/49.13	30.1/34.7	81/87	90/90	100/100	38/44	40/45	—	—	—
	CC20C	1	14.4/19.2	49.13/65.5	40/46.2	93/101	100/100	110/110	50/58	50/60	—	—	—
	CC30C	1	21.6/28.8	73.69/98.25	60.2/69.4	119/130	125/125	150/150	76/87	80/90	—	—	—
B090CM	CC40C	1	28.8/38.4	98.25/131	80.1/92.4	144/159	150/150	175/175	101/116	110/125	—	—	—
	No Heat	—	—	—	—	43/43	50/60	50/60	—	—	43/43	50/60	50/60
	CC15C	1	10.8/14.4	36.84/49.13	30.1/34.7	81/87	90/90	100/100	38/44	40/45	—	—	—
	CC20C	1	14.4/19.2	49.13/65.5	40/46.2	93/101	100/100	110/110	50/58	50/60	—	—	—
B090CN	CC30C	1	21.6/28.8	73.69/98.25	60.2/69.4	119/130	125/125	150/150	76/87	80/90	—	—	—
	CC40C	1	28.8/38.4	98.25/131	80.1/92.4	144/159	150/150	175/175	101/116	110/125	—	—	—
	No Heat	—	—	—	—	45/45	60/60	60/60	—	—	45/45	60/60	60/60
	CC15C	1	10.8/14.4	36.84/49.13	30.1/34.7	83/89	100/100	100/100	38/44	40/45	—	—	—
B120CL	CC20C	1	14.4/19.2	49.13/65.5	40/46.2	95/103	110/110	125/125	50/58	50/60	—	—	—
	CC30C	1	21.6/28.8	73.69/98.25	60.2/69.4	121/132	150/150	150/150	76/87	80/90	—	—	—
	CC40C	1	28.8/38.4	98.25/131	80.1/92.4	146/161	175/175	175/175	101/116	110/125	—	—	—
	No Heat	—	—	—	—	50/50	60/70	60/70	—	—	50/50	60/70	60/70
B120CM	CC15C	1	10.8/14.4	36.84/49.13	30.1/34.7	88/94	100/110	100/110	38/44	40/45	—	—	—
	CC20C	1	14.4/19.2	49.13/65.5	40/46.2	100/108	110/110	125/125	50/58	50/60	—	—	—
	CC30C	1	21.6/28.8	73.69/98.25	60.2/69.4	126/137	150/150	150/150	76/87	80/90	—	—	—
	CC40C	1	28.8/38.4	98.25/131	80.1/92.4	151/166	175/175	175/175	101/116	110/125	—	—	—
B120CN	No Heat	—	—	—	—	52/52	60/80	60/80	—	—	52/52	60/80	60/80
	CC15C	1	10.8/14.4	36.84/49.13	30.1/34.7	90/96	100/110	110/110	38/44	40/45	—	—	—
	CC20C	1	14.4/19.2	49.13/65.5	40/46.2	102/110	110/125	125/125	50/58	50/60	—	—	—
	CC30C	1	21.6/28.8	73.69/98.25	60.2/69.4	128/139	150/150	150/150	76/87	80/90	—	—	—
B120CN	CC40C	1	28.8/38.4	98.25/131	80.1/92.4	153/168	175/175	200/200	101/116	110/125	—	—	—

\*= For Canadian use only. Uses "P" fuses for inductive circuit.  
+ = Field installed only.



Air

Electric Heater Kits  
RJNL-B Series

480 VOLT, THREE PHASE, 60 HZ, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION														
Separate Power Supply for Both Unit and Heater Kit														
Model No. RJNL-	Single Power Supply for Both Unit and Heater Kit						Heater Kit						Heat Pump	
	RXJJ-Heater Kit Nominal kW	No. of Sequence Steps	Rated Heater kW @ 480V	Heater kBTU/Hr @ 480V	Heater Amps @ 480V	Unit Min. Ckt. Ampacity @ 480V	Over Current Protective Device Size		Min. Ckt. Ampacity 480V	Max. Fuse Size 480V	Min. Circuit Ampacity 480V	Over Current Protective Device Size		
							Min./Max. 480V	Min./Max. 480V				Min./Max. 480V	Min./Max. 480V	
B090DL	No Heat	—	—	—	—	21	—	25/30	—	—	21	—	25/30	—
	CC15D	14.4	49.13	17.4	43	43	50/50	—	25	—	—	—	—	—
	CC20D	19.2	65.5	23.1	50	50	60/60	60/60	30	—	—	—	—	—
	CC30D	28.8	98.25	34.7	65	65	70/70	70/70	45	—	—	—	—	—
B090DM	CC40D	38.4	131	46.2	79	79	90/90	90/90	60	—	—	—	—	—
	No Heat	—	—	—	21	21	25/30	—	—	—	21	—	25/30	—
	CC15D	14.4	49.13	17.4	43	43	50/50	—	25	—	—	—	—	—
	CC20D	19.2	65.5	23.1	50	50	60/60	60/60	30	—	—	—	—	—
B090DN	CC30D	28.8	98.25	34.7	65	65	70/70	70/70	45	—	—	—	—	—
	CC40D	38.4	131	46.2	79	79	90/90	90/90	60	—	—	—	—	—
	No Heat	—	—	—	22	22	25/30	—	—	—	22	—	25/30	—
	CC15D	14.4	49.13	17.4	44	44	50/50	—	25	—	—	—	—	—
B120DL	CC20D	19.2	65.5	23.1	51	51	60/60	60/60	30	—	—	—	—	—
	CC30D	28.8	98.25	34.7	66	66	80/80	80/80	45	—	—	—	—	—
	CC40D	38.4	131	46.2	80	80	90/90	90/90	60	—	—	—	—	—
	No Heat	—	—	—	28	28	35/40	—	—	—	28	—	35/40	—
B120DM	CC15D	14.4	49.13	17.4	50	50	60/60	60/60	25	—	—	—	—	—
	CC20D	19.2	65.5	23.1	57	57	80/80	80/80	30	—	—	—	—	—
	CC30D	28.8	98.25	34.7	72	72	90/90	90/90	45	—	—	—	—	—
	CC40D	38.4	131	46.2	86	86	35/45	—	—	—	29	—	35/45	—
B120DN	No Heat	—	—	—	29	29	60/60	60/60	—	—	22	—	—	—
	CC15D	14.4	49.13	17.4	51	51	70/70	70/70	25	—	—	—	—	—
	CC20D	19.2	65.5	23.1	58	58	80/80	80/80	30	—	—	—	—	—
	CC30D	28.8	98.25	34.7	73	73	100/100	100/100	45	—	—	—	—	—
CC40D	38.4	131	46.2	87	87			60	—	—	—	—	—	

\* = For Canadian use only. Uses "P" fuses for inductive circuit.

+ = Field installed only.



INTEGRATED AIR &amp; WATER

600 VOLT, THREE PHASE, 60 HZ, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION														
Separate Power Supply for Both Unit and Heater Kit														
Model No. RJNL-	Single Power Supply for Both Unit and Heater Kit							Heater Kit						
	RXJJ-Heater Kit Nominal kW	No. of Sequence Steps	Rated Heater kW @ 600V	Heater kBTU/Hr @ 600V	Heater Amps @ 600V	Unit Min. Ckt. Ampacity @ 600V	Over Current Protective Device Size		Min. Circuit Ampacity 600V	Max. Fuse Size 600V	Min. Ckt. Ampacity 600V	Over Current Protective Device Size		
							Min./Max. 600V	Min./Max. 600V				Min./Max. 600V	Min./Max. 600V	
B090YL	No Heat	—	—	—	—	16	20/20	—	—	16	—	20/20	—	
	CC15Y	14.4	49.13	13.9	34	34	40/40	—	20	18	20	—	—	
	CC20Y	19.2	65.5	18.5	40	40	45/45	—	25	24	25	—	—	
	CC30Y	28.8	98.25	28.9	53	53	60/60	—	40	37	40	—	—	
B090YM	CC40Y	38.4	131	38.5	65	65	70/70	—	50	49	50	—	—	
	No Heat	—	—	—	16	16	20/20	—	—	—	—	20/20	—	
	CC15Y	14.4	49.13	13.9	34	34	40/40	—	20	18	20	—	—	
	CC20Y	19.2	65.5	18.5	40	40	45/45	—	25	24	25	—	—	
B090YN	CC30Y	28.8	98.25	28.9	53	53	60/60	—	40	37	40	—	—	
	CC40Y	38.4	131	38.5	65	65	70/70	—	50	49	50	—	—	
	No Heat	—	—	—	17	17	20/25	—	—	—	—	20/25	—	
	CC15Y	14.4	49.13	13.9	35	35	45/45	—	20	18	20	—	—	
B120YL	CC20Y	19.2	65.5	18.5	41	41	50/50	—	25	24	25	—	—	
	CC30Y	28.8	98.25	28.9	54	54	60/60	—	40	37	40	—	—	
	CC40Y	38.4	131	38.5	66	66	80/80	—	50	49	50	—	—	
	No Heat	—	—	—	20	20	25/30	—	—	—	—	25/30	—	
B120YM	CC15Y	14.4	49.13	13.9	38	38	45/45	—	20	18	20	—	—	
	CC20Y	19.2	65.5	18.5	44	44	50/50	—	25	24	25	—	—	
	CC30Y	28.8	98.25	28.9	57	57	60/60	—	40	37	40	—	—	
	CC40Y	38.4	131	38.5	69	69	80/80	—	50	49	50	—	—	
B120YM	No Heat	—	—	—	21	21	25/30	—	—	—	—	25/30	—	
	CC15Y	14.4	49.13	13.9	39	39	50/50	—	20	18	20	—	—	
	CC20Y	19.2	65.5	18.5	45	45	60/60	—	25	24	25	—	—	
	CC30Y	28.8	98.25	28.9	58	58	70/70	—	40	37	40	—	—	
CC40Y	38.4	131	38.5	70	70	80/80	—	50	49	49	50	—	—	

\* = For Canadian use only. Uses "P" fuses for inductive circuit.  
 + = Field installed only.

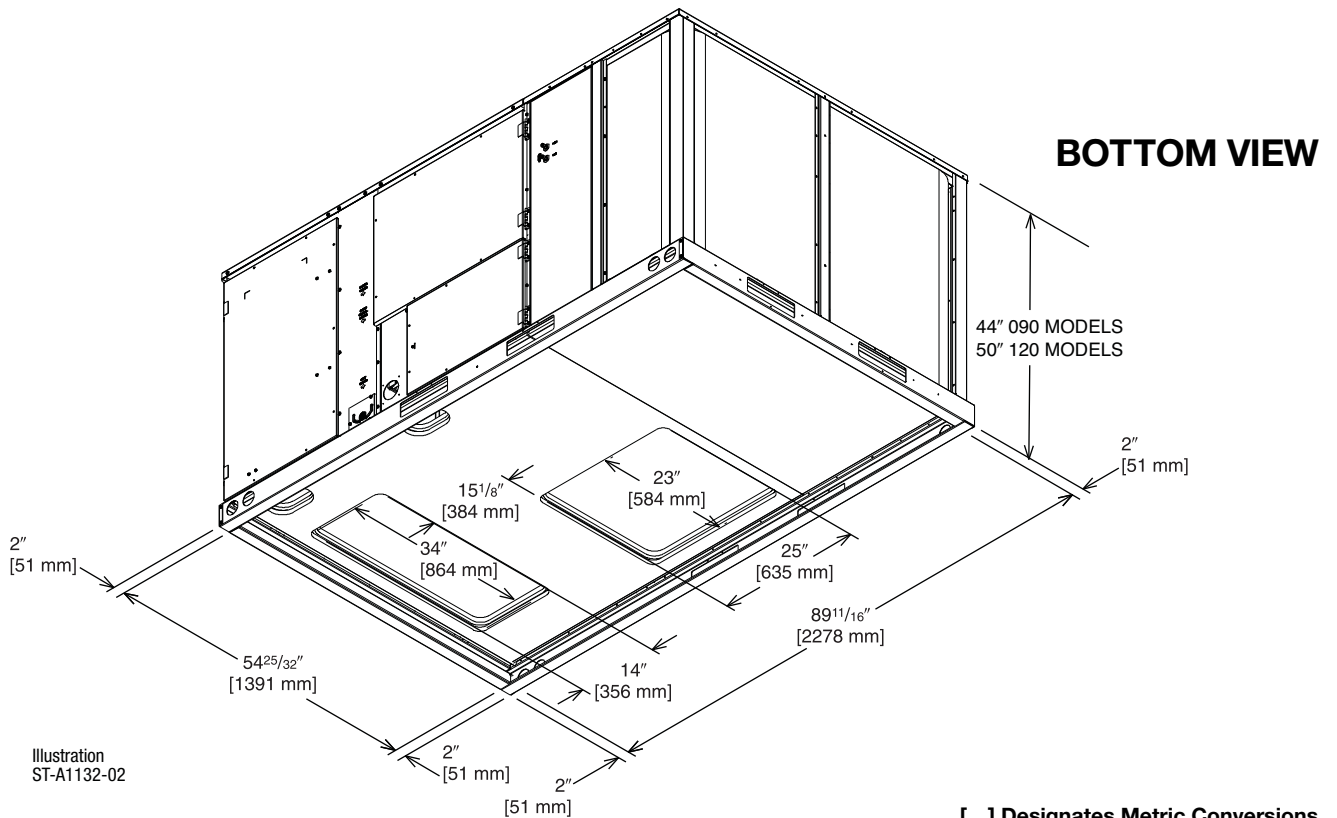
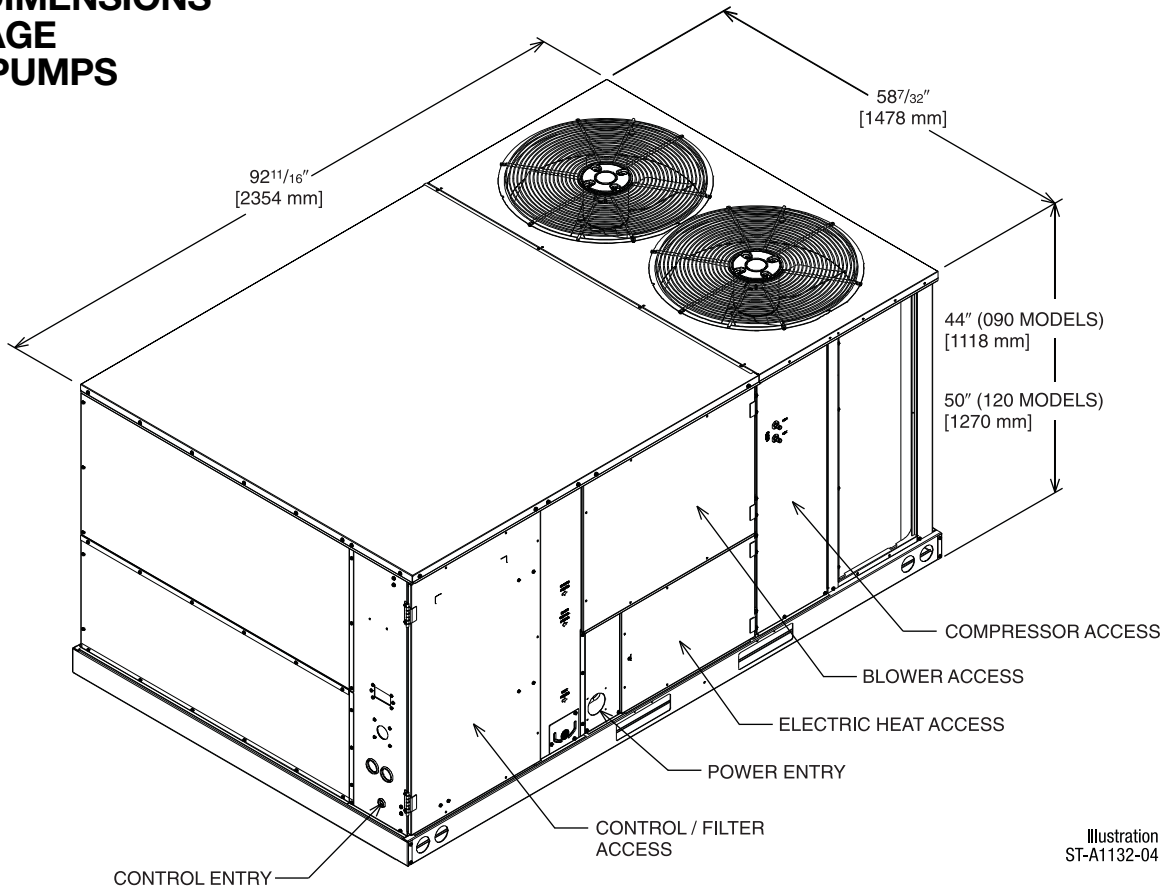
<b>ELECTRICAL DATA – RJNL- SERIES</b>										
		<b>B090CL</b>	<b>B090CM</b>	<b>B090CN</b>	<b>B090DL</b>	<b>B090DM</b>	<b>B090DN</b>	<b>B090YL</b>	<b>B090YM</b>	<b>B090YN</b>
<b>Unit Information</b>	Unit Operating Voltage Range	187-253	187-253	187-253	414-506	414-506	414-506	517-632	517-632	517-632
	Volts	208/230	208/230	208/230	460	460	460	575	575	575
	Minimum Circuit Ampacity	43/43	43/43	45/45	21	21	22	16	16	17
	Minimum Overcurrent Protection Device Size	50/50	50/50	60/60	25	25	25	20	20	20
	Maximum Overcurrent Protection Device Size	60/60	60/60	60/60	30	30	30	20	20	25
<b>Compressor Motor</b>	No.	1	1	1	1	1	1	1	1	1
	Volts	200/230	200/230	200/230	460	460	460	575	575	575
	Phase	3	3	3	3	3	3	3	3	3
	RPM	3450	3450	3450	3450	3450	3450	3450	3450	3450
	HP, Compressor 1	10 1/4	10 1/4	10 1/4	10 1/4	10 1/4	10 1/4	10 1/4	10 1/4	10 1/4
	Amps (RLA), Comp. 1	25/25	25/25	25/25	12.2	12.2	12.2	9	9	9
	Amps (LRA), Comp. 1	164/164	164/164	164/164	100	100	100	78	78	78
	HP, Compressor 2	—	—	—	—	—	—	—	—	—
	Amps (RLA), Comp. 2	—	—	—	—	—	—	—	—	—
Amps (LRA), Comp. 2	—	—	—	—	—	—	—	—	—	
<b>Condenser Motor</b>	No.	2	2	2	2	2	2	2	2	2
	Volts	208/230	208/230	208/230	460	460	460	575	575	575
	Phase	1	1	1	1	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3
	Amps (FLA, each)	2.4/2.4	2.4/2.4	2.4/2.4	1.4	1.4	1.4	1	1	1
	Amps (LRA, each)	3.9/3.9	3.9/3.9	3.9/3.9	1.8	1.8	1.8	1.5	1.5	1.5
<b>Evaporator Fan</b>	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	460	575	575	575
	Phase	3	3	3	3	3	3	3	3	3
	HP	2	2	3	2	2	3	2	2	3
	Amps (FLA, each)	8/8	8/8	13/13	4	4	7	4	4	8
	Amps (LRA, each)	56/56	56/56	74.5/74.5	28	28	38.1	19	19	20

### ELECTRICAL DATA – RJNL- SERIES

		B120CL	B120CM	B120DL	B120DM	B120YL	B120YM
<b>Unit Information</b>	Unit Operating Voltage Range	187-253	187-253	414-506	414-506	517-632	517-632
	Volts	208/230	208/230	460	460	575	575
	Minimum Circuit Ampacity	50/50	52/52	28	29	20	21
	Minimum Overcurrent Protection Device Size	60/60	60/60	35	35	25	25
	Maximum Overcurrent Protection Device Size	70/70	80/80	40	45	30	30
<b>Compressor Motor</b>	No.	1	1	1	1	1	1
	Volts	200/230	200/230	460	460	575	575
	Phase	3	3	3	3	3	3
	RPM	3450	3450	3450	3450	3450	3450
	HP, Compressor 1	12 3/4	12 3/4	12 3/4	12 3/4	12 3/4	12 3/4
	Amps (RLA), Comp. 1	30.1/30.1	30.1/30.1	16.7	16.7	12.2	12.2
	Amps (LRA), Comp. 1	225/225	225/225	114	114	80	80
	HP, Compressor 2	—	—	—	—	—	—
	Amps (RLA), Comp. 2	—	—	—	—	—	—
Amps (LRA), Comp. 2	—	—	—	—	—	—	
<b>Condenser Motor</b>	No.	2	2	2	2	2	2
	Volts	208/230	208/230	460	460	575	575
	Phase	1	1	1	1	1	1
	HP	1/2	1/2	1/2	1/2	1/2	1/2
	Amps (FLA, each)	2.3/2.3	2.3/2.3	1.5	1.5	1	1
	Amps (LRA, each)	5.6/5.6	5.6/5.6	3.1	3.1	2.2	2.2
<b>Evaporator Fan</b>	No.	1	1	1	1	1	1
	Volts	208/230	208/230	460	460	575	575
	Phase	3	3	3	3	3	3
	HP	2	3	2	3	2	3
	Amps (FLA, each)	8/8	13/13	4	7	4	8
	Amps (LRA, each)	56/56	74.5/74.5	28	38.1	19	20



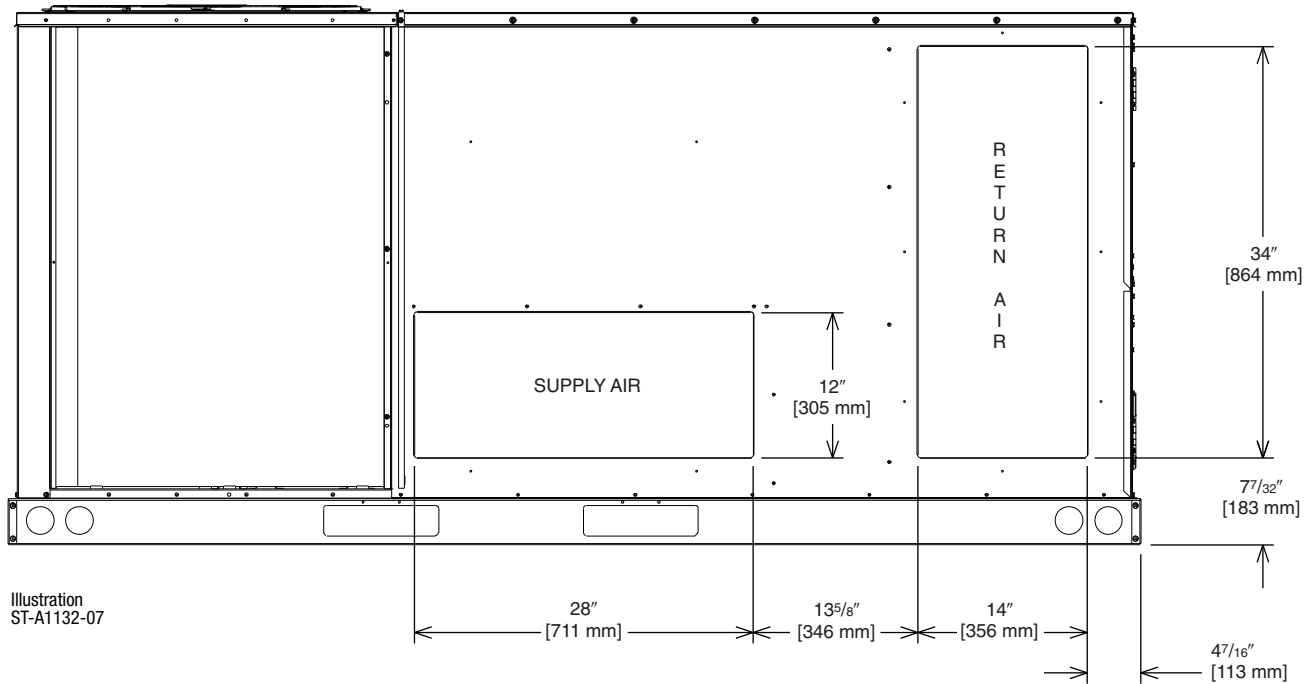
# UNIT DIMENSIONS PACKAGE HEAT PUMPS



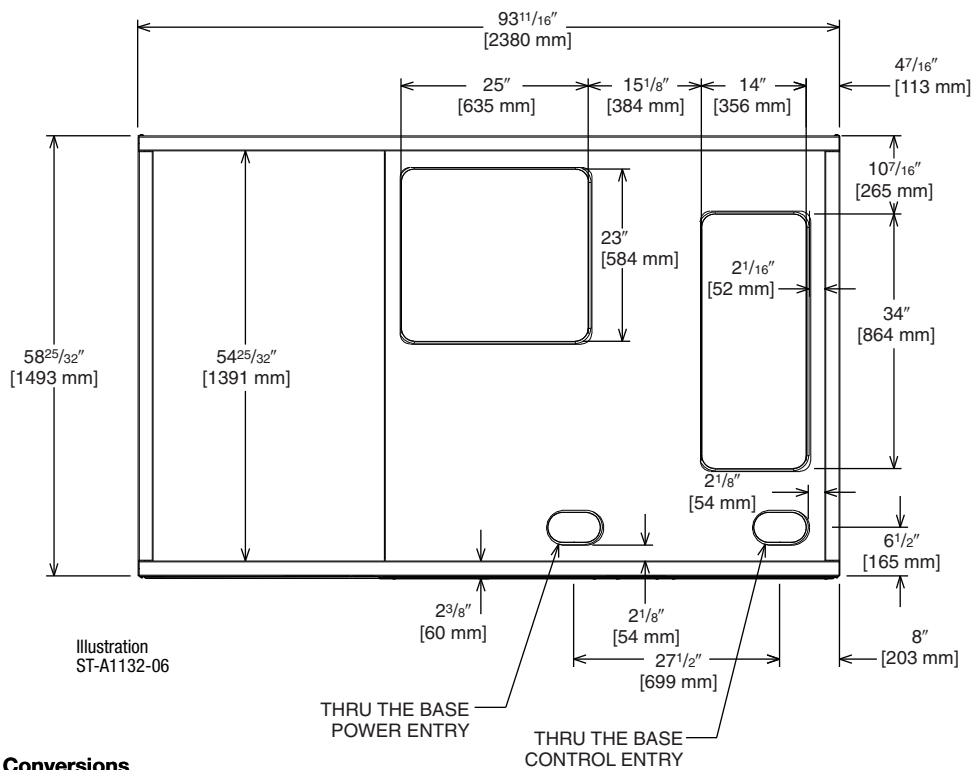
[ ] Designates Metric Conversions

# UNIT DIMENSIONS PACKAGE HEAT PUMPS

## SUPPLY AND RETURN DIMENSIONS FOR HORIZONTAL APPLICATION



## SUPPLY AND RETURN DIMENSIONS FOR DOWNFLOW APPLICATIONS

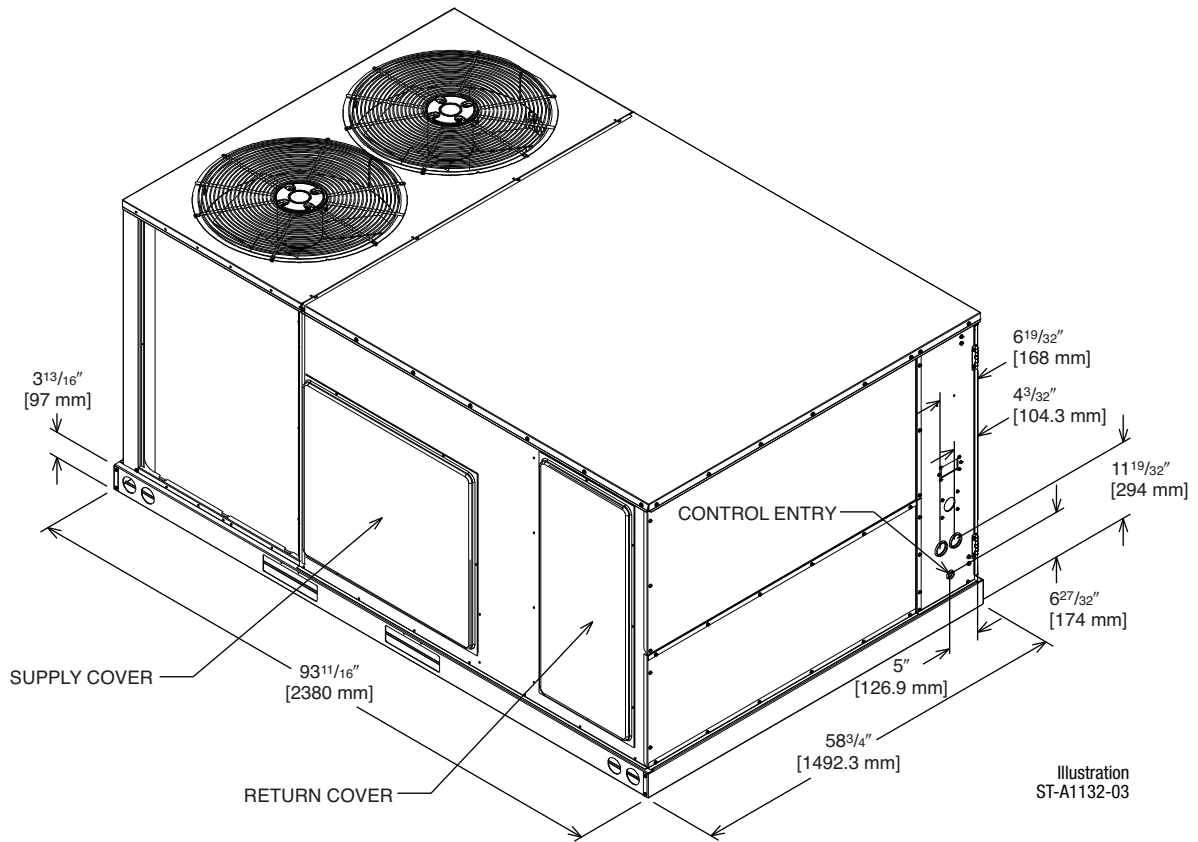


[ ] Designates Metric Conversions

# UNIT DIMENSIONS

## PACKAGE

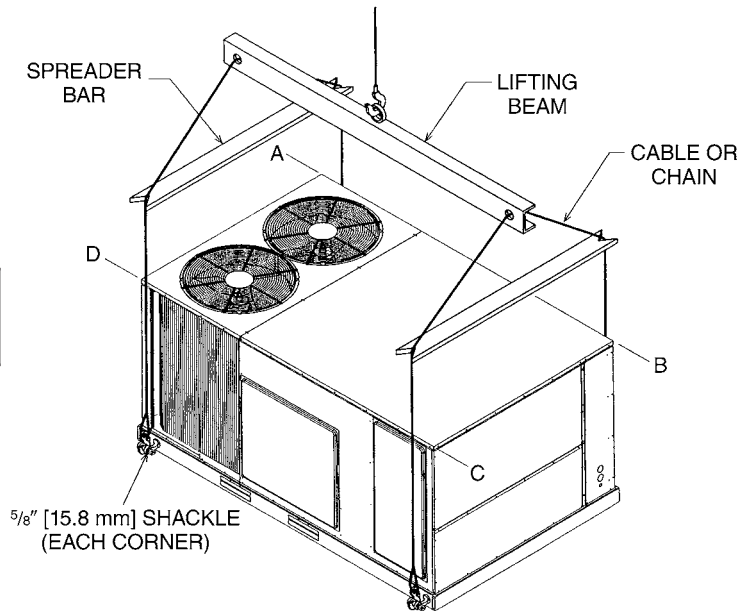
### HEAT PUMPS



[ ] Designates Metric Conversions

## CORNER WEIGHTS

Capacity Tons [kW]	Corner Weights by Percentage			
	A	B	C	D
7.5-10 [26.4-35.2]	32%	26%	20%	22%



## CLEARANCES

The following minimum clearances are recommended 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

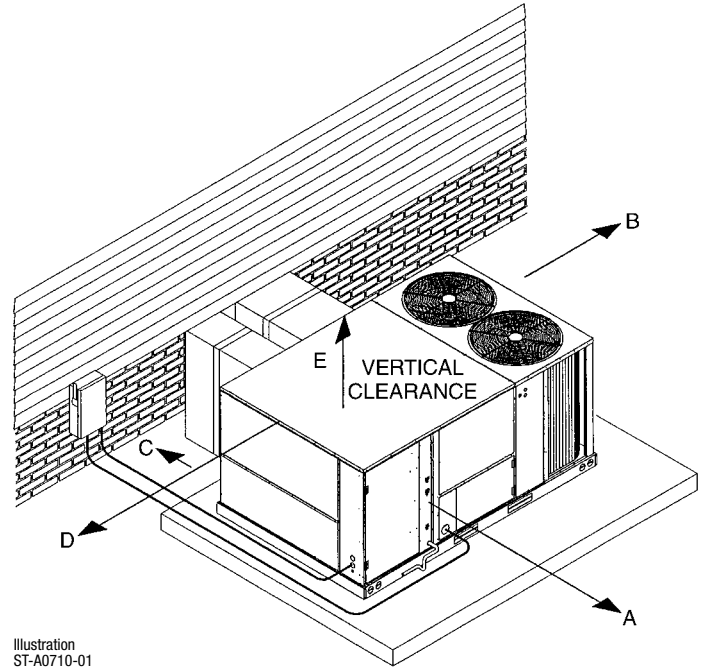


Illustration  
ST-A0710-01

## FIELD INSTALLED ACCESSORY EQUIPMENT

Accessory	Model Number	Shipping Weight Lbs. [kg]	Installed Weight Lbs. [kg]	Factory Installation Available?
Thermostats	See Thermostat Specification Sheet for Details (T11-001)			No
Electric Heaters	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-CC40 (C,D,Y)	49 [22.2]	39 [17.7]	Yes
Economizer w/Single Enthalpy	AXRD-PDCM3	90 [40.8]	81 [36.7]	Yes
Economizer w/Single Enthalpy and Smoke Detector	AXRD-SDCM3	91 [41.3]	82 [57.2]	Yes
Dual Enthalpy Kit	RXRX-AV02	3 [1.4]	1 [.5]	No
Horizontal Economizer w/Single Enthalpy	AXRD-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)	AXRF-KDA1	38 [17.2]	31 [14.0]	No
Manual Fresh Air (Return Panel)	AXRF-JDA1	26 [11.8]	21 [9.5]	No
Motorized Fresh Air (Return Panel)	AXRF-JDB1	43 [19.5]	38 [17.2]	No
Motor Kit for RXRF-KDA1	RXRX-AW02	35 [15.9]	27 [12.2]	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, 20" Round)	RXRN-FA65	139 [63.0]	60 [27.2]	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, 20" Round)	RXRN-FA75	54 [24.4]	42 [19.0]	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 Transition (Rect. to Round)	RXMC-CD04 ①	15 [6.8]	13 [5.9]	No
Downflow Transition (Rect. to Rect., 18 x 28)	RXMC-CE05 ②	18 [8.2]	16 [7.3]	No
Downflow Transition (Rect. to Rect., 18 x 32)	RXMC-CF06 ③	20 [9.1]	18 [8.2]	No
Low-Ambient Control Kit	RXRZ-A03	3 [1.4]	2 [1.0]	Yes
Freeze-Stat Kit	RXRX-AM05	1 [.5]	0.5 [.2]	Yes
Outdoor Coil Louver Kit (090)	AXRX-AAD01H	25 [11.3]	22 [10.0]	Yes
Outdoor Coil Louver Kit (120)	AXRX-AAD01J	29 [13.2]	26 [11.8]	Yes
Non-Powered Convenience Outlet	RXRX-AN01	2 [1.0]	1.5 [0.7]	Yes

NOTES: ① Used with RXRN-FA65 and RXRN-FA75 concentric diffusers.

② Used with RXRN-AA66 and RXRN-AA76 concentric diffusers.

③ Used with RXRN-AA66 and RXRN-AA76 concentric diffusers.

[ ] Designates Metric Conversions

## THERMOSTATS



**200-Series \***  
 Programmable



**300-Series \***  
 Deluxe Programmable

**400-Series \***  
 Special Applications/  
 Programmable



**500-Series \***  
 Communicating/  
 Programmable

Brand	Descriptor (3 Characters)	Series (3 Characters)	System (2 Characters)	Type (2 Characters)	
<b>RHC</b>	<b>-</b>	<b>TST</b>	<b>213</b>	<b>UN</b>	<b>MS</b>
RHC=Rheem	TST=Thermostat	200=Programmable 300=Deluxe Programmable 400=Special Applications/ Programmable 500=Communicating/ Programmable	GE=Gas/Electric UN=Universal (AC/HP/GE) MD=Modulating Furnace DF=Dual Fuel CM=Communicating	SS=Single-Stage MS=Multi-Stage	

\* Photos are representative. Actual models may vary.

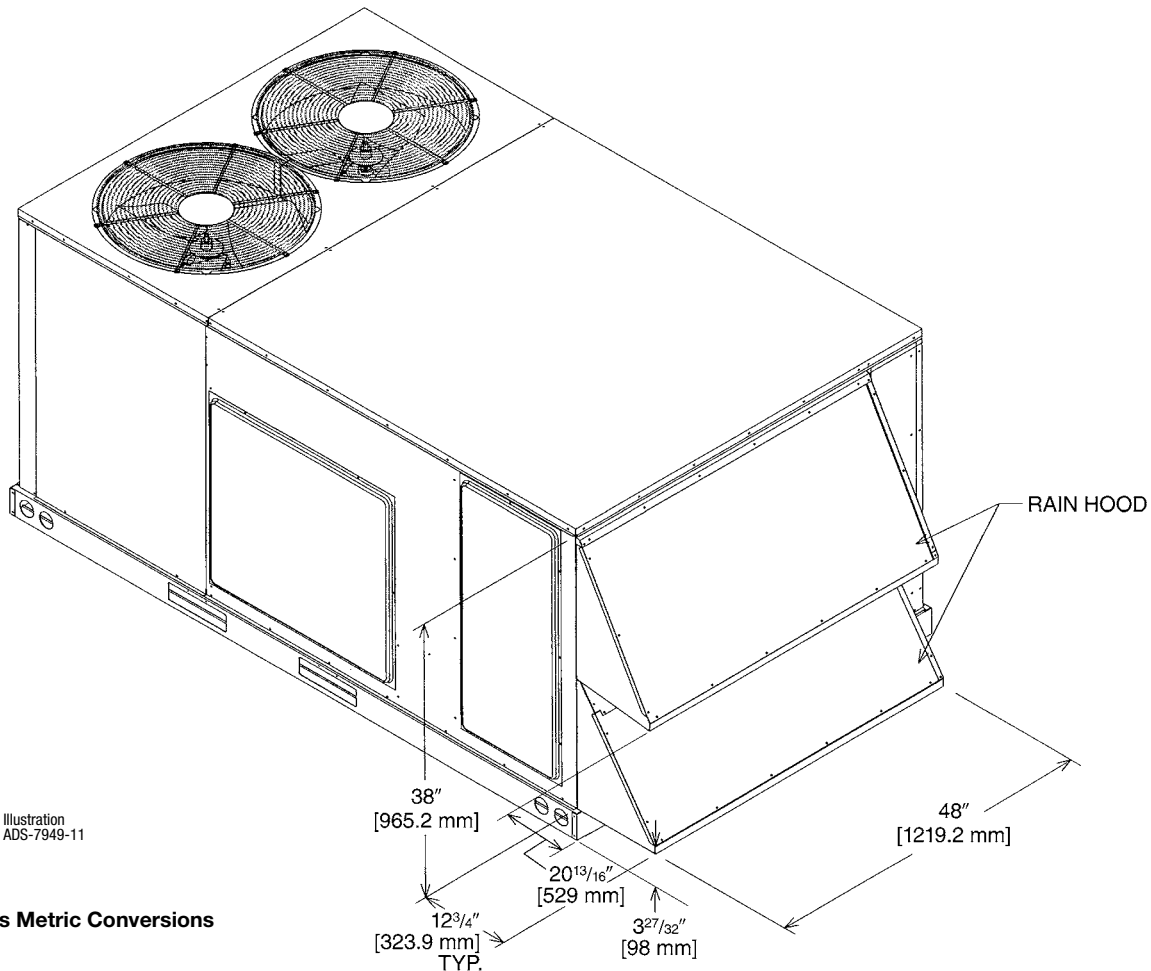
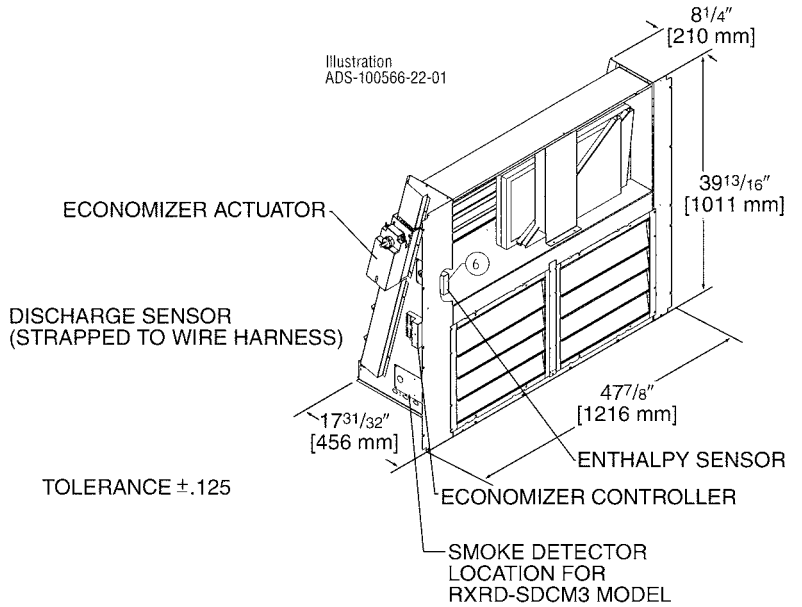
For detailed thermostat match-up information,  
 see specification sheet form number T11-001.

# ECONOMIZERS

## Use to Select Factory Installed Options Only

- AXRD-PDCM3—Single Enthalpy (Outdoor)**
- AXRD-SDCM3—Single Enthalpy w/Smoke Detector**
- RXXR-AV02—Dual Enthalpy Upgrade Kit**
- RXXR-AR02—Optional Wall-Mounted CO<sub>2</sub> 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
- CO<sub>2</sub> 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

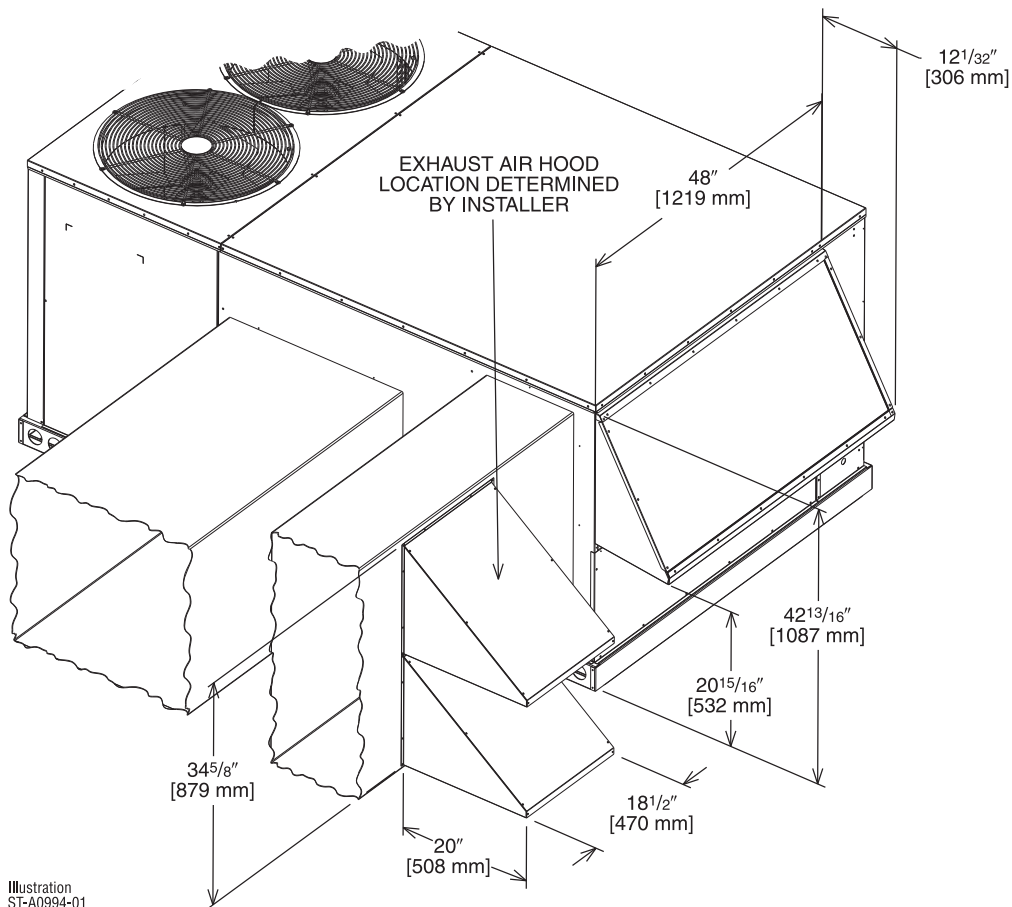
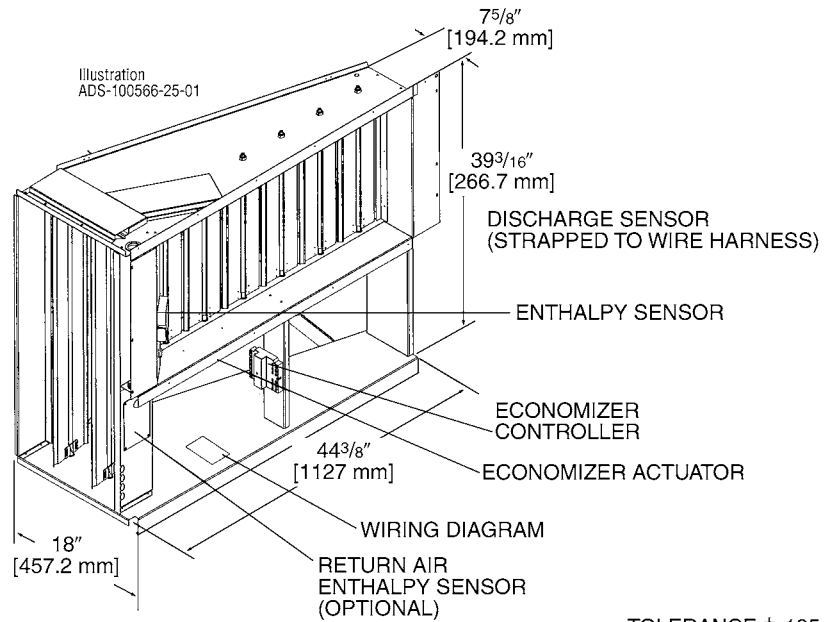
## Field Installed Only

**AXRD-RDCM3—Single Enthalpy (Outdoor)**

**RXXR-AV02—Dual Enthalpy Upgrade Kit**

**RXXR-AR02—Wall-mounted CO<sub>2</sub> 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
- CO<sub>2</sub> 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



[ ] Designates Metric Conversions



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

RXRX-BFF02 (C, D, or Y\*)

\*Voltage Code

## VERTICAL AIRFLOW

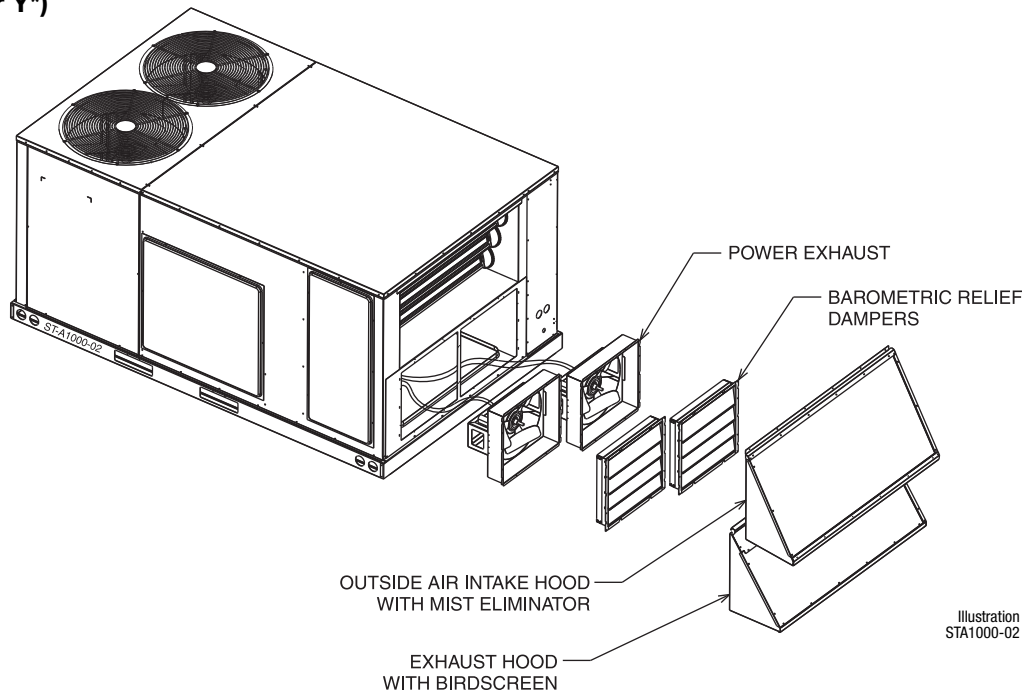


Illustration  
STA1000-02

## HORIZONTAL AIRFLOW

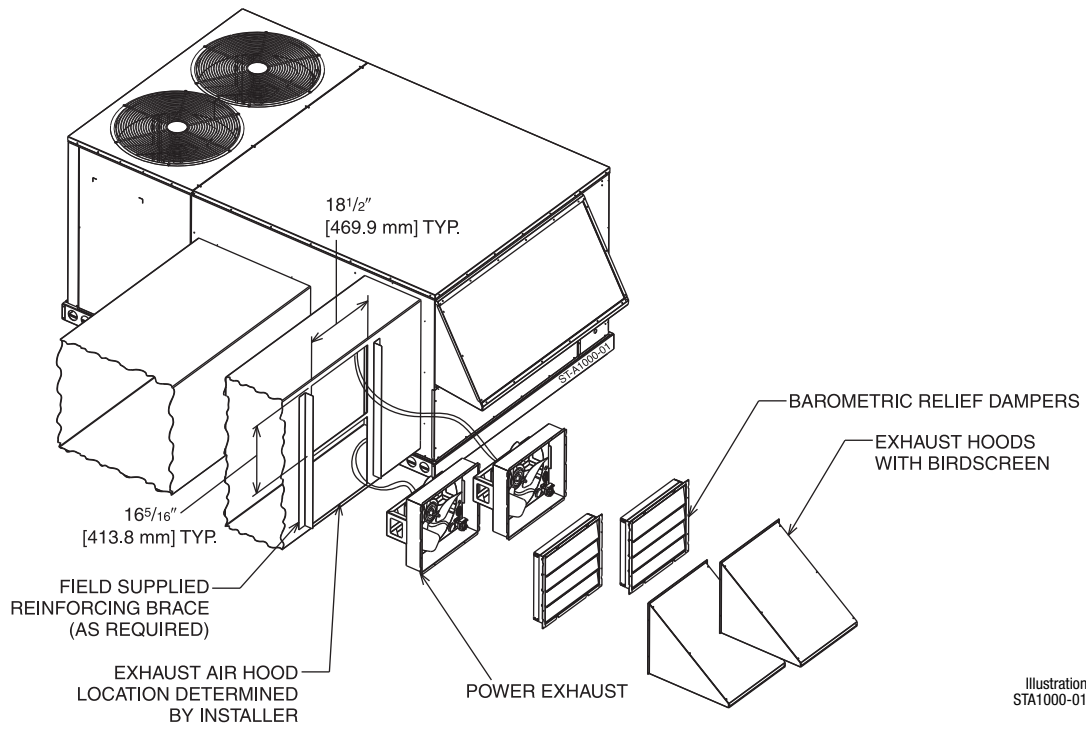


Illustration  
STA1000-01

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		
RXRX-BFF02C	2	208-230	1	0.33	2200 [1038]	1518	2500 [1179]	1670	1.48	3.6
RXRX-BFF02D	2	460	1	0.33	2200 [1038]	1518	2500 [1179]	1670	0.75	1.8
RXRX-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.

[ ] Designates Metric Conversions

# FRESH AIR DAMPER

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

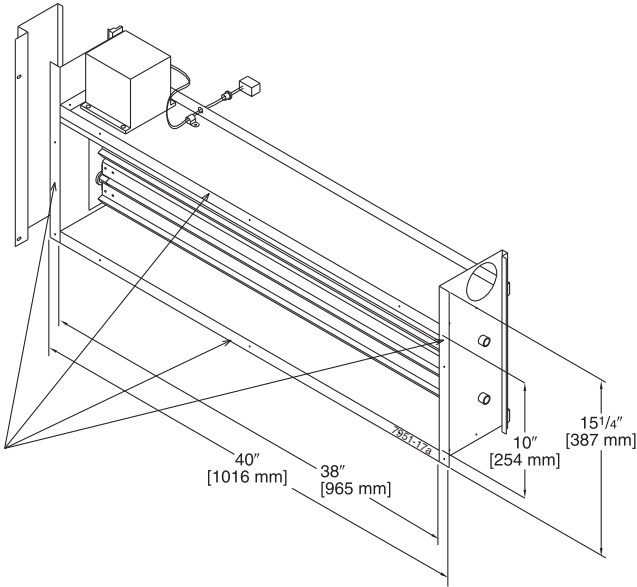


Illustration  
 ST-7951-17

[ ] Designates Metric Conversions

**AXRF-KDA1 (Manual)**  
**DOWNFLOW OR**  
**HORIZONTAL APPLICATION**

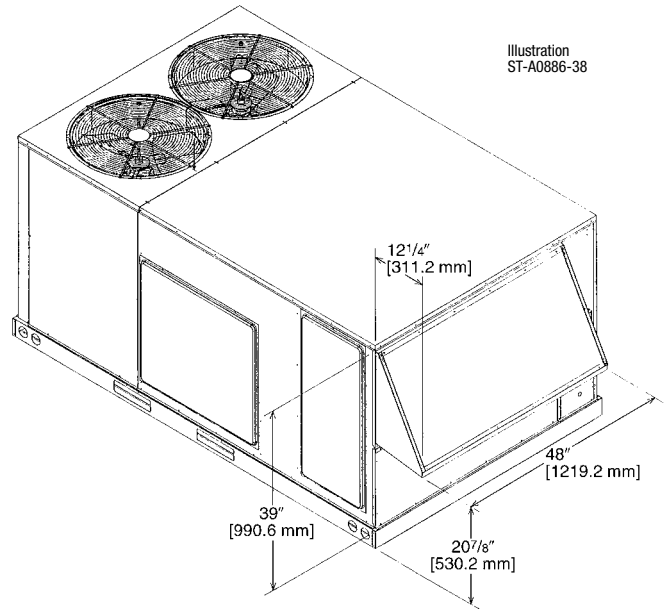
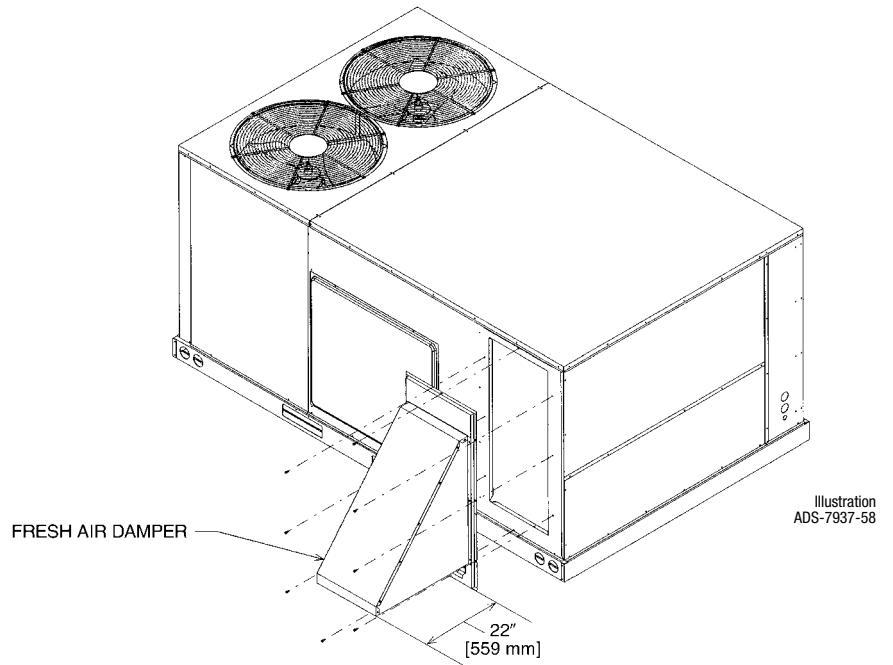


Illustration  
 ST-A0886-38

## FRESH AIR DAMPER (Cont.)

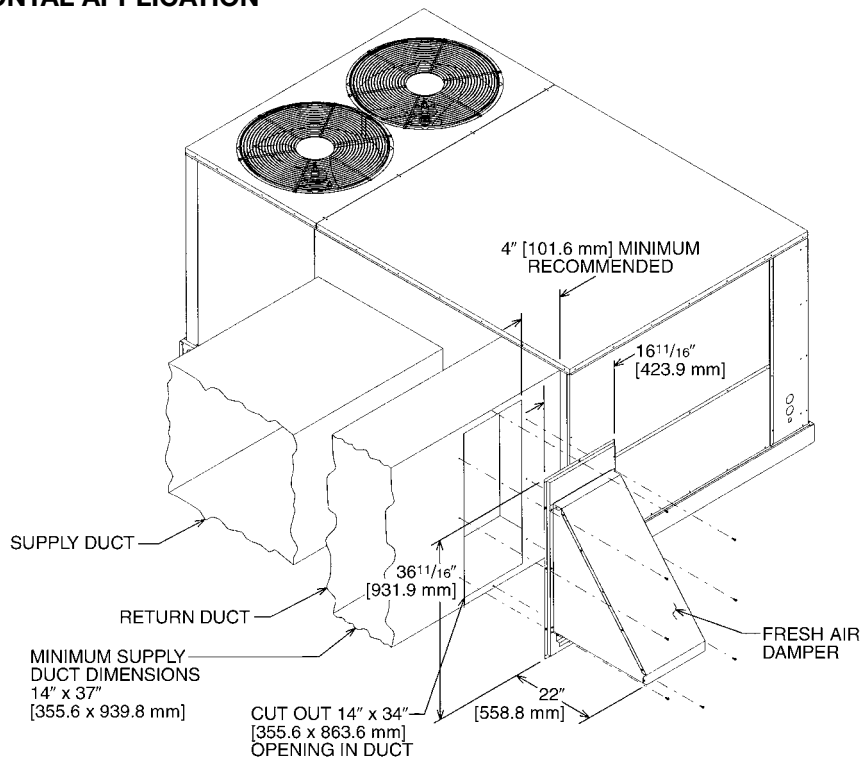
AXRF-JDA1 (Manual)  
 AXRF-JDB1 (Motorized)

### DOWNFLOW APPLICATION



### HORIZONTAL APPLICATION

Illustration  
ST-A0901-01



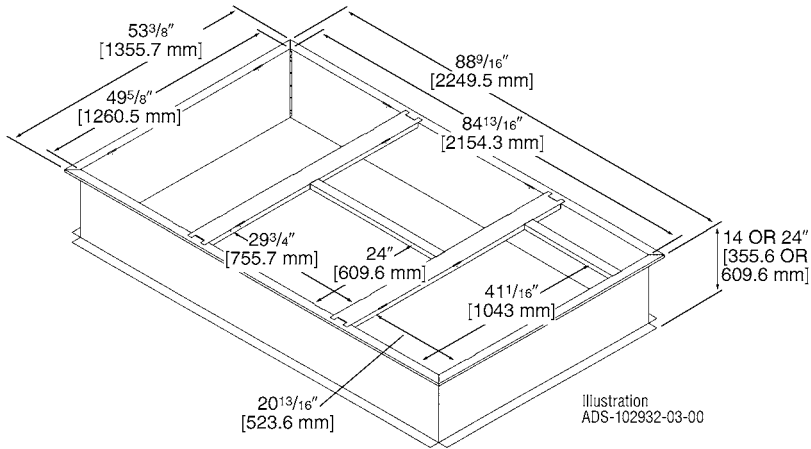
[ ] Designates Metric Conversions

## ROOFCURBS (Full Perimeter)

- Rheem's new roofcurb design can be utilized on 7.5 and 10 ton [26.4 and 35.2 kW] RJNL-B 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.
- 2" [51 mm] x 4" [102 mm] Nailers provided.
- Insulating panels not required because of insulated outdoor base pan.
- Sealing gasket (28" [711 mm]) provided with Roofcurb.
- Packaged for easy field assembly.

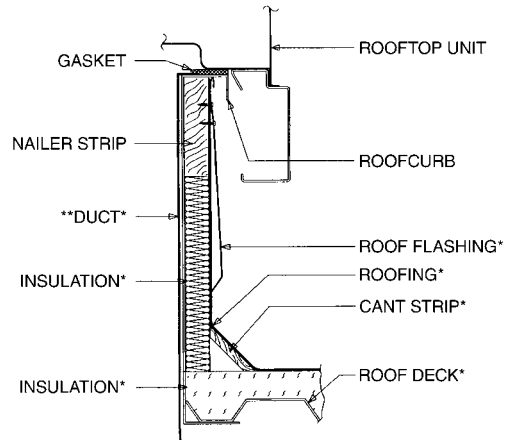
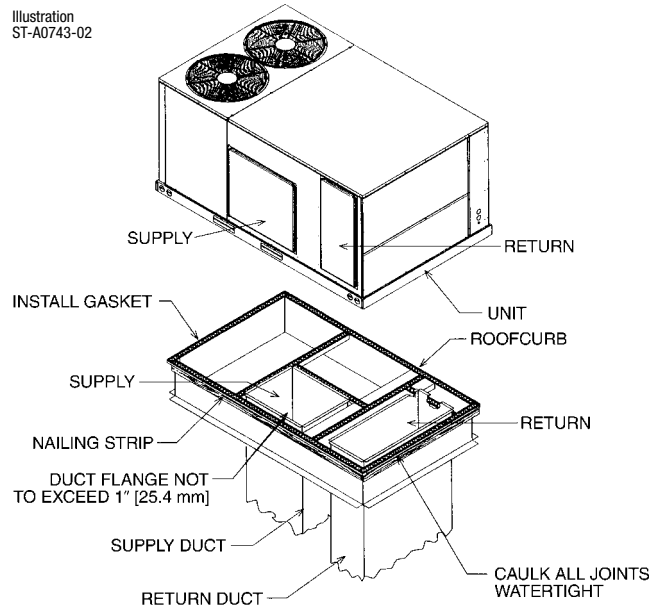
Roofcurb Model	Height of Curb
RXKG-CAE14	14" [356 mm]
RXKG-CAE24	24" [610 mm]

## ROOFCURB INSTALLATION



## TYPICAL INSTALLATION

Illustration ST-A0743-02



\*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

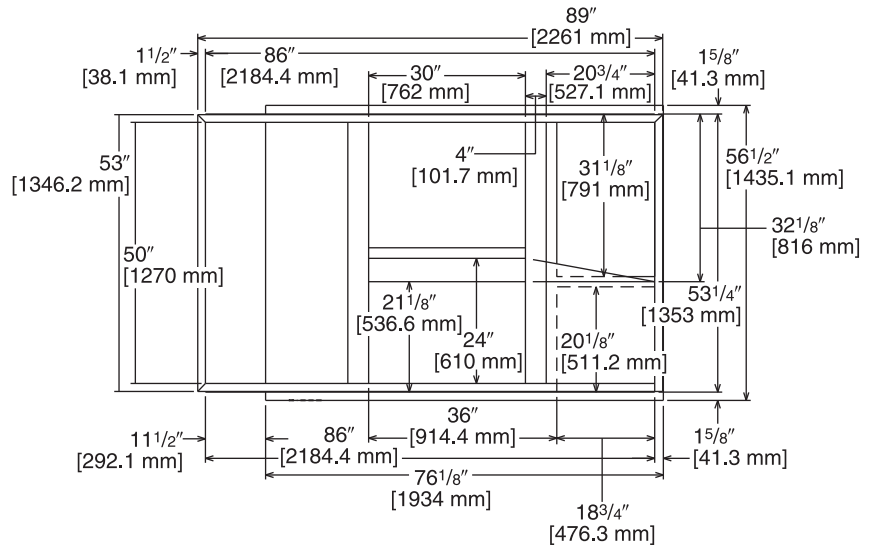
OLD MODELS	OLD ROOFCURB	ROOFCURB ADAPTER	NEW MODELS (All Share Common Footprint)
(-)RCF, (-)REF-075/076 (-)RGF-150075, (-)RGF-131076 (-)RGF-201076	RXRK-E50	RXRK-CDCE50	
(-)RGF-200075 (-)RGG, (-)REG, (-)RCG-075 (-)RGF, (-)REF, (-)RCF-085 (-)RGF, (-)REF, (-)RCF-100 (-)RGG, (-)REG, (-)RCG-100	RXRK-E54	RXRK-CFCE54	(-)JNL-B090 (-)JNL-B120
(-)RGF, (-)REF, (-)RCF-125	RXRK-E56	RXRK-CFCE56	
(-)PDC-075 (-)PDC-100/101	RXPK-C12	RXRK-CGCC12	

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.

# ROOFCURB ADAPTERS (Cont.)

RXRX-CDCE50

Illustration  
ADS-7952-02  
Sheet 2



**TOP VIEW**

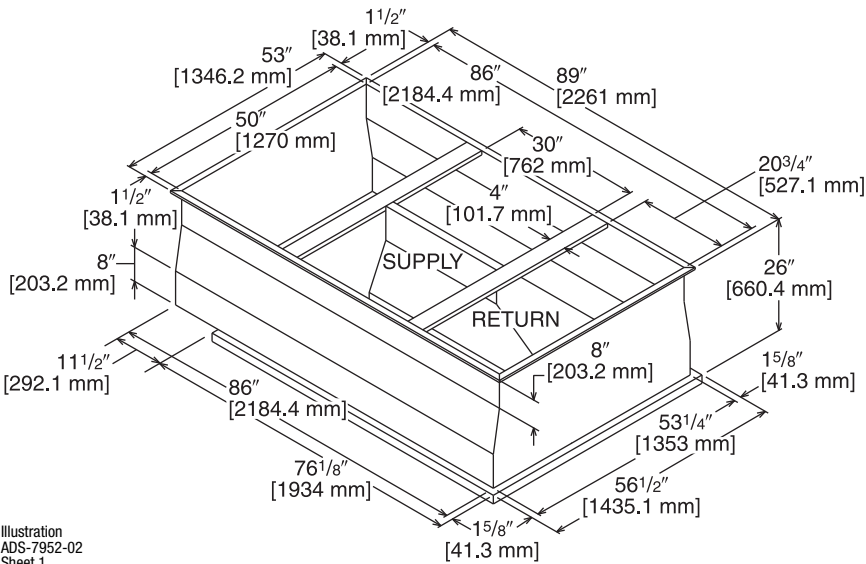


Illustration  
ADS-7952-02  
Sheet 1

[ ] Designates Metric Conversions

# ROOFCURB ADAPTERS (Cont.)

RXRX-CFCE54

Illustration  
ADS-7952-01  
Sheet 2

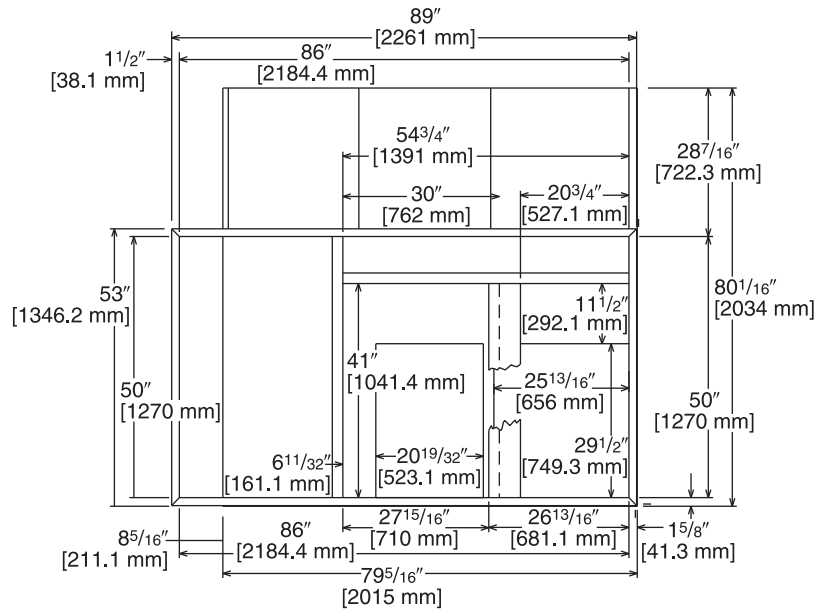
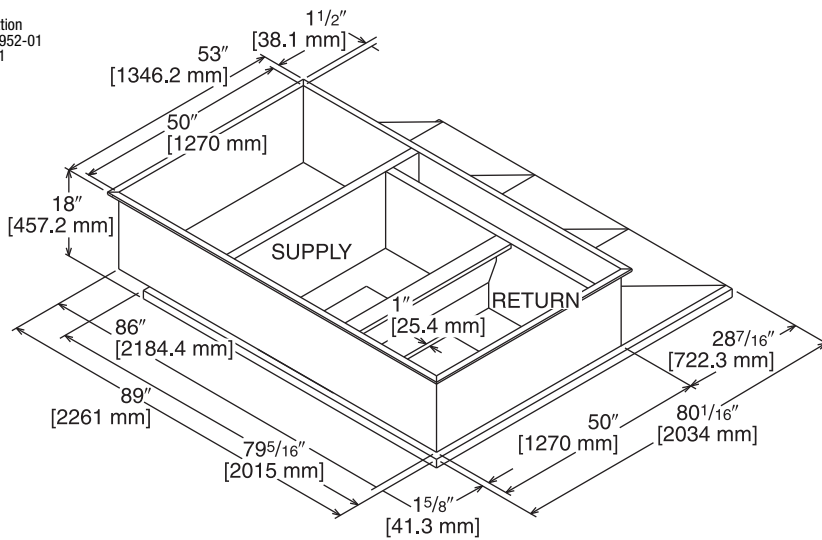


Illustration  
ADS-7952-01  
Sheet 1



[ ] Designates Metric Conversions

# ROOFCURB ADAPTERS (Cont.)

RXRX-CFCE56

Illustration  
 ADS-7952-03  
 Sheet 2

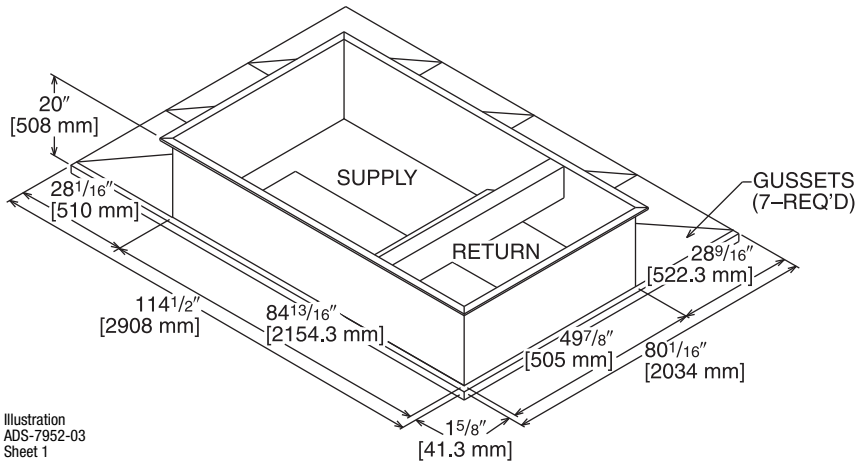
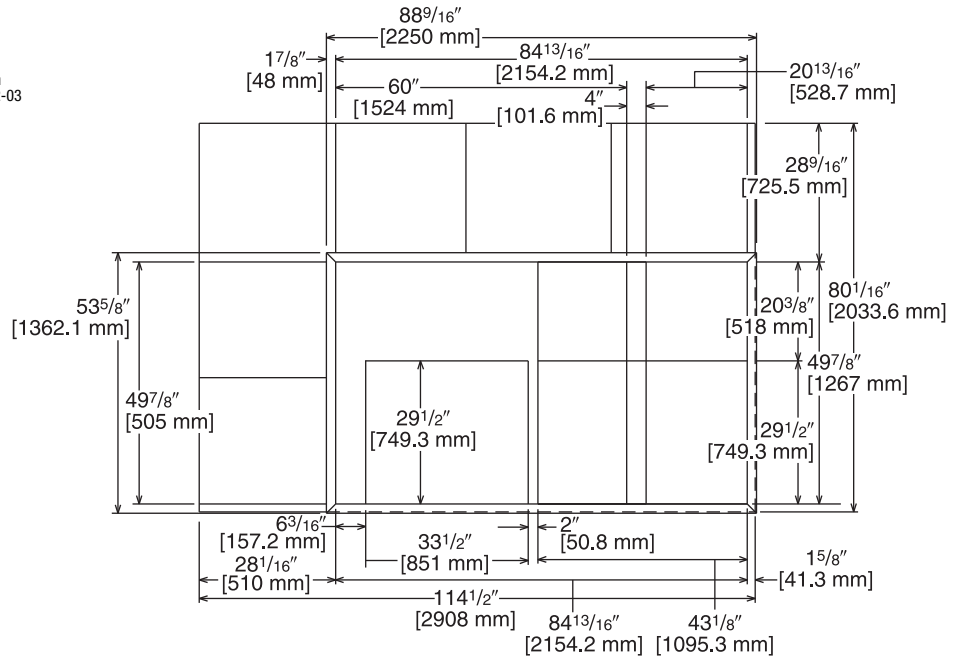


Illustration  
 ADS-7952-03  
 Sheet 1

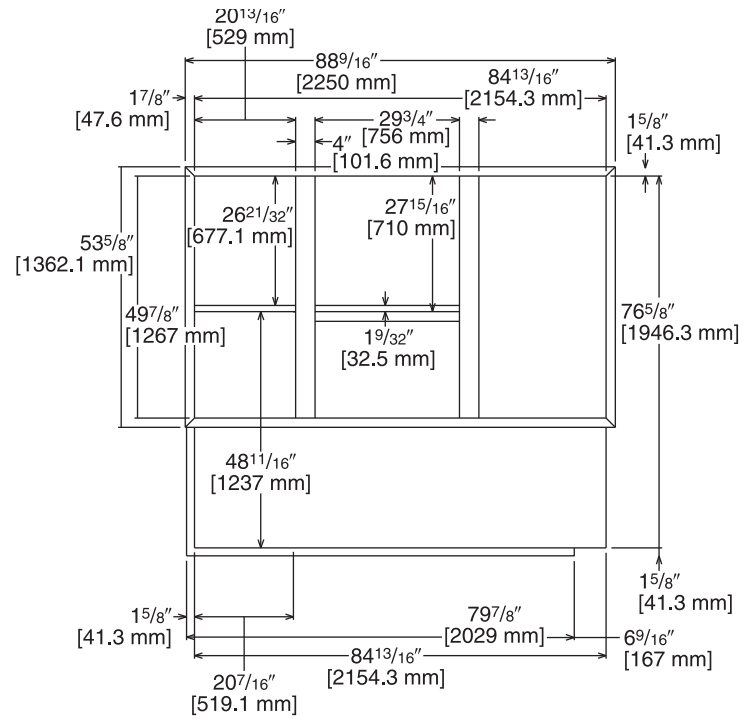
[ ] Designates Metric Conversions



# ROOFCURB ADAPTERS (Cont.)

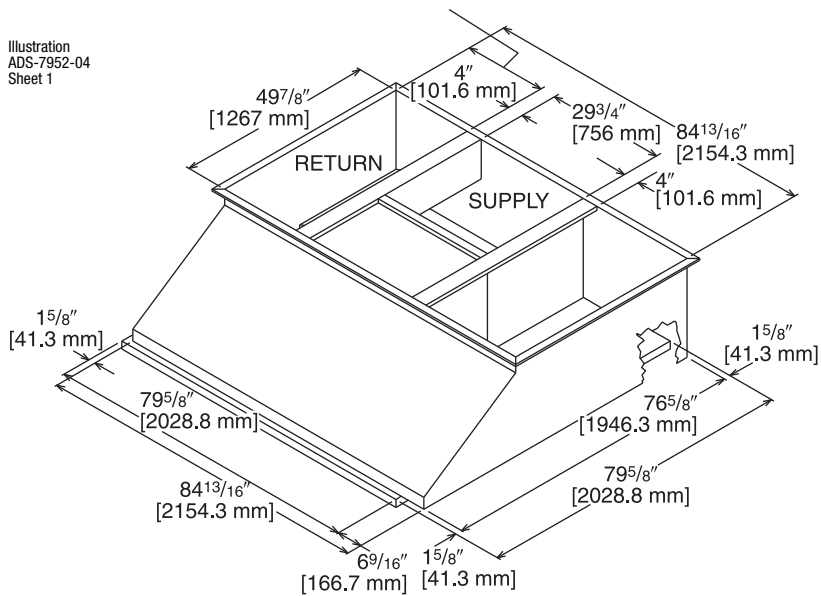
RXRX-CGCC12

Illustration  
ADS-7952-04  
Sheet 2



TOP VIEW

Illustration  
ADS-7952-04  
Sheet 1



[ ] Designates Metric Conversions

# CONCENTRIC DIFFUSER APPLICATION

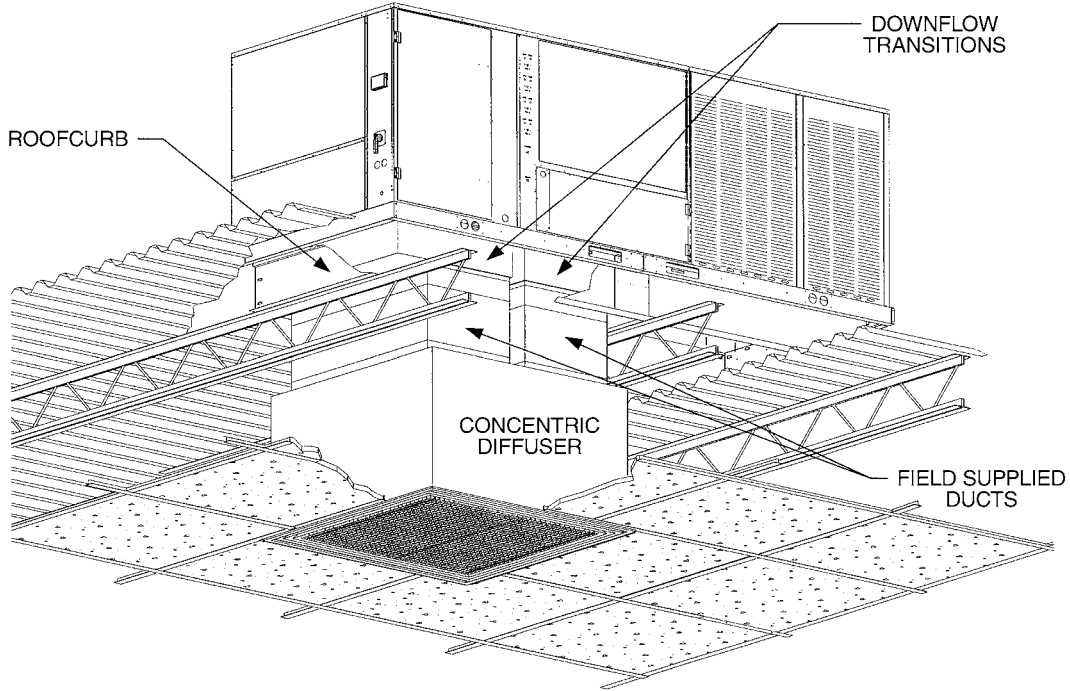


Illustration  
ST-A0840-02

## DOWNFLOW TRANSITION DRAWINGS

### RXMC-CE05

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

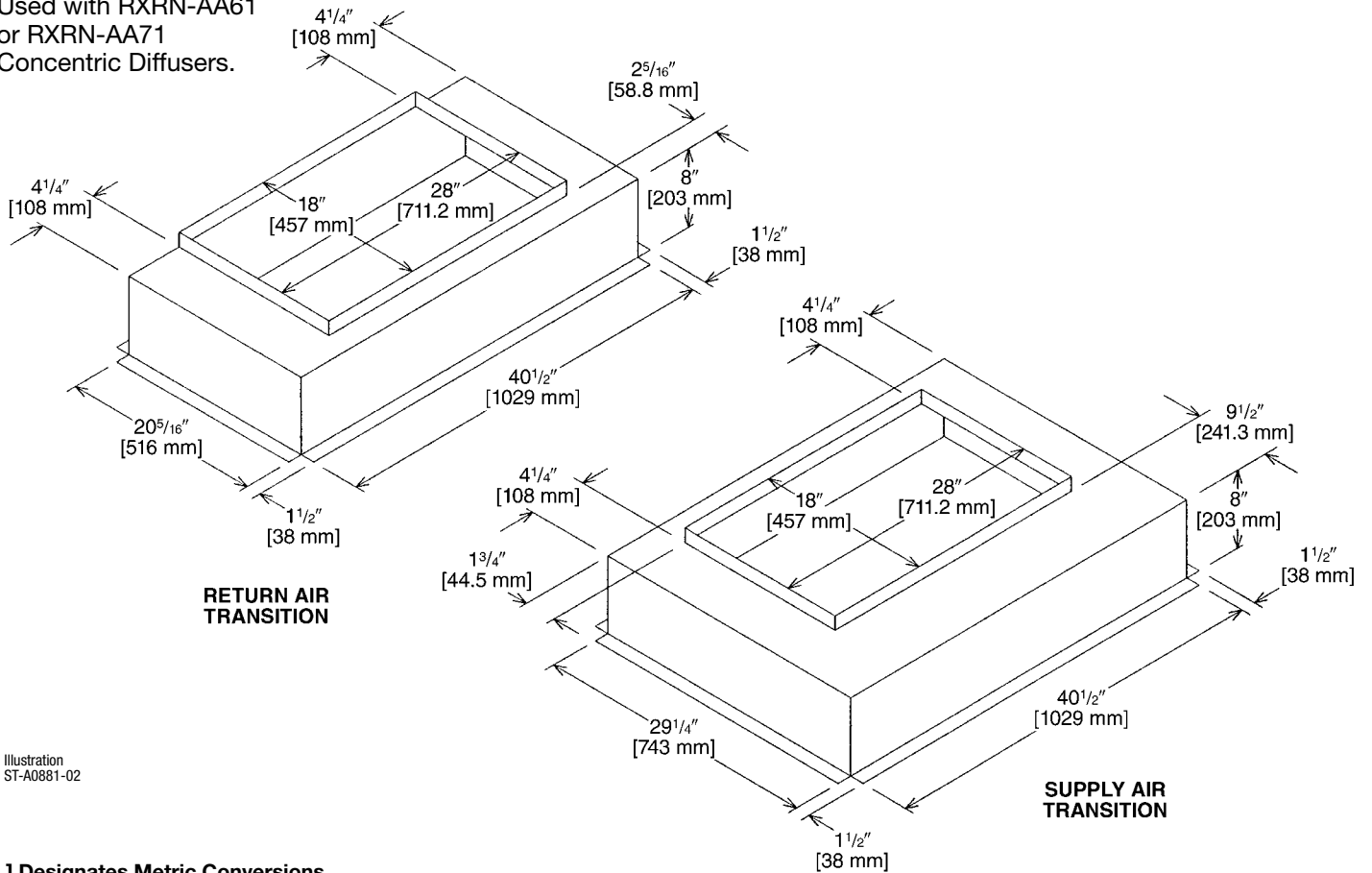


Illustration  
ST-A0881-02

[ ] Designates Metric Conversions

## DOWNFLOW TRANSITION DRAWINGS (Cont.)

### RXMC-CF06

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

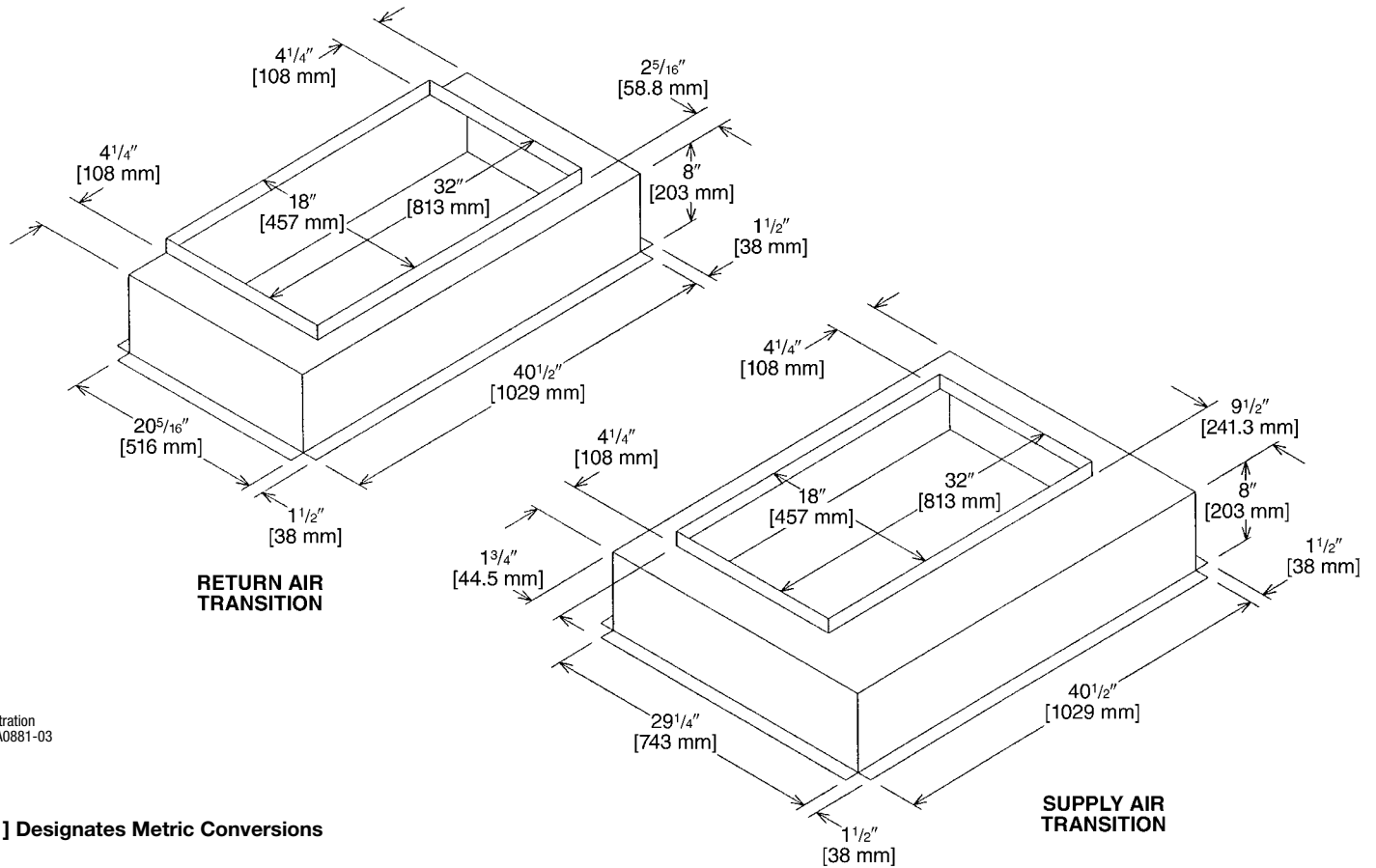


Illustration  
 ST-A0881-03

[ ] Designates Metric Conversions

# DOWNFLOW TRANSITION DRAWINGS (Cont.)

## RXMC-CD04

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

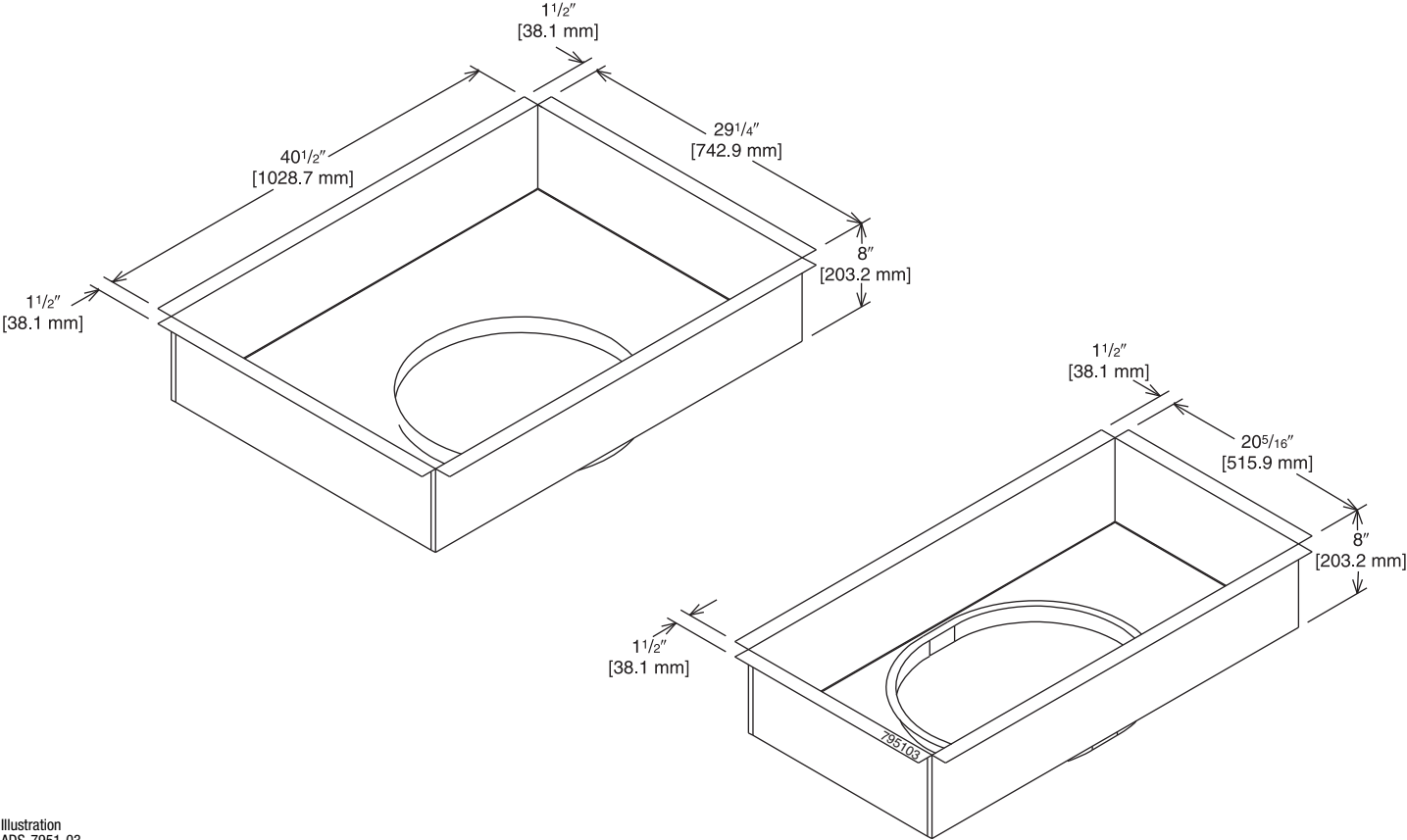


Illustration  
ADS-7951-03

[ ] Designates Metric Conversions

# CONCENTRIC DIFFUSER—STEP DOWN

RXRN-FA65 (7.5 Ton [26.4 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.

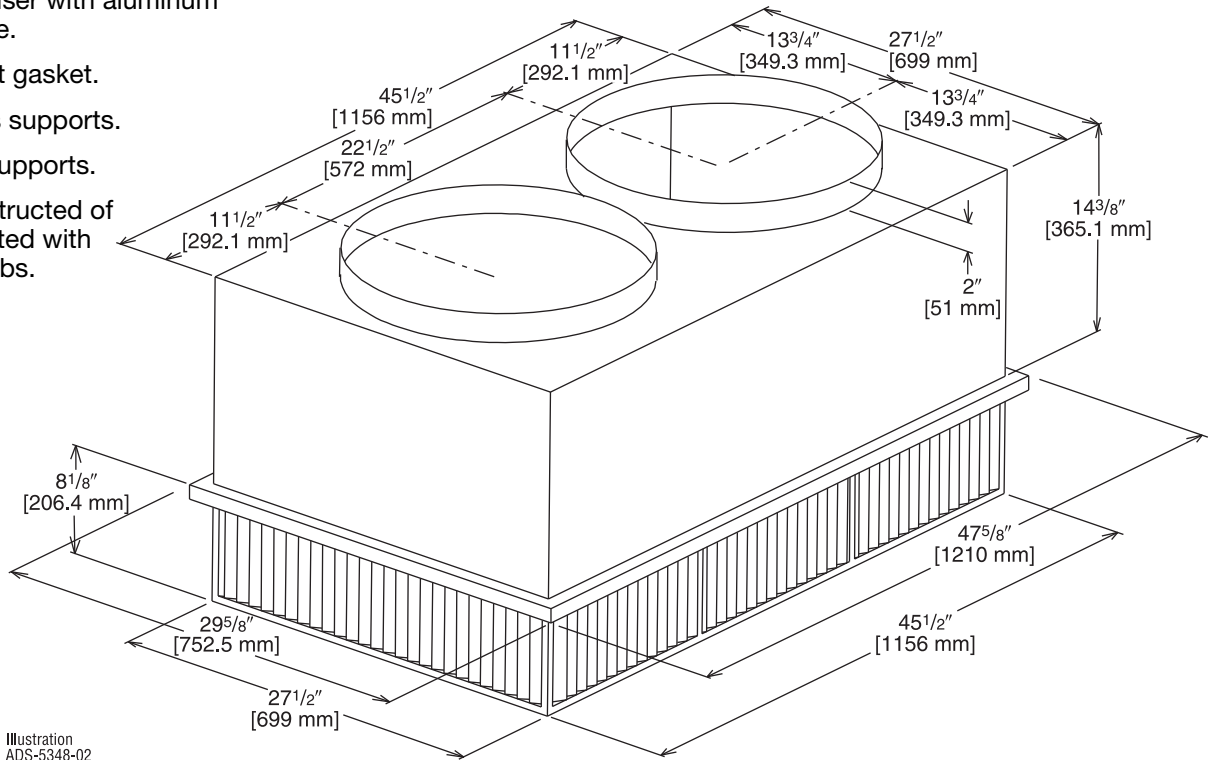


Illustration  
ADS-5348-02

## ENGINEERING DATA<sup>①</sup>

Model No.	Flow Rate CFM [L/s]	Static Pressure in. w.c. [kPa]	Throw <sup>② ③</sup> Feet [m]	Neck Velocity fpm [m/s]	Noise Level <sup>④</sup> (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

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

RXRN-AA61 (10 Ton [35.2 kW] 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.

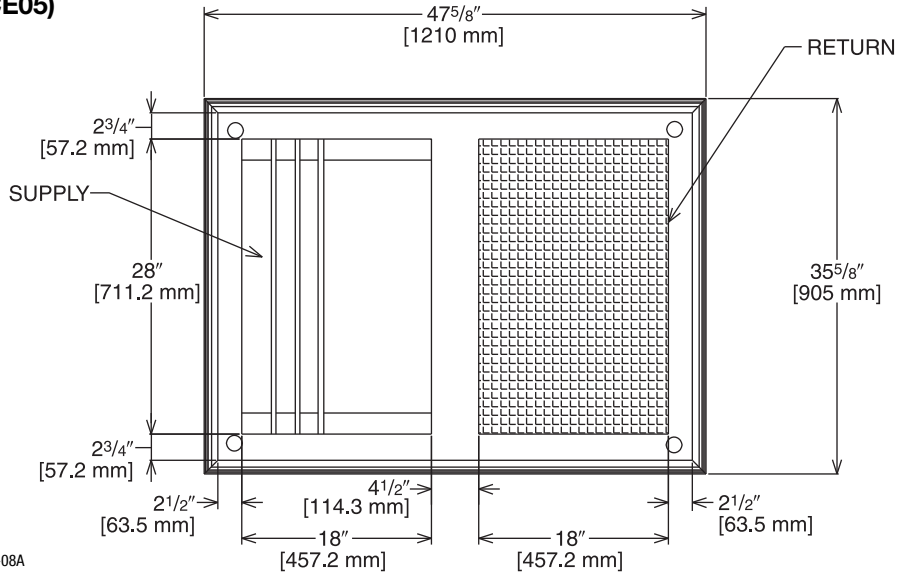


Illustration  
ADS-7951-08A

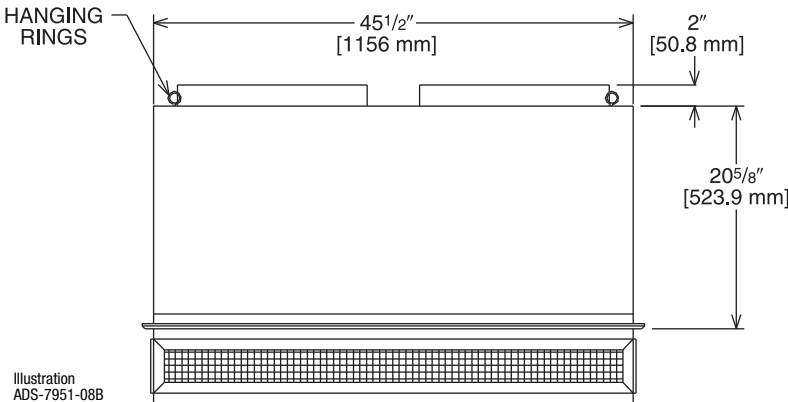


Illustration  
ADS-7951-08B

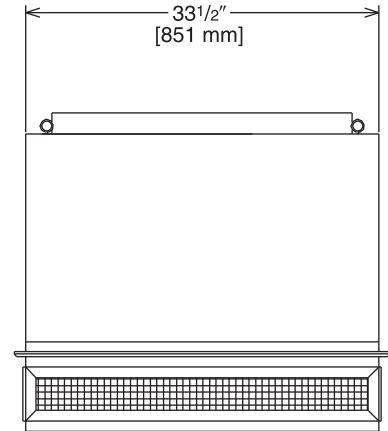


Illustration  
ADS-7951-08C

## ENGINEERING DATA<sup>①</sup>

Model No.	Flow Rate CFM [L/s]	Static Pressure in w.c. [kPa]	Throw <sup>② ③</sup> Feet [m]	Neck Velocity fpm [m/s]	Noise Level <sup>④</sup> (dbA)
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 (10 Ton [35.2 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.

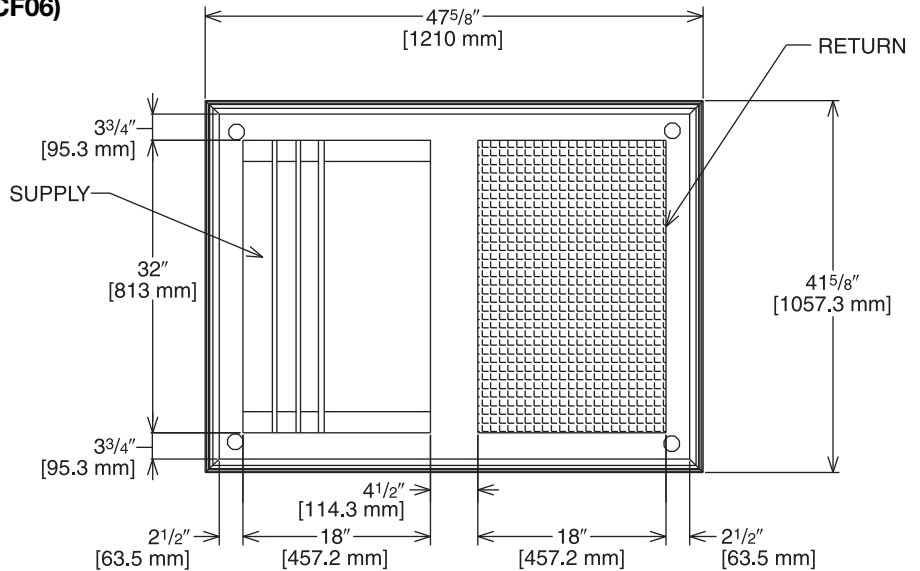


Illustration  
ADS-7951-09A

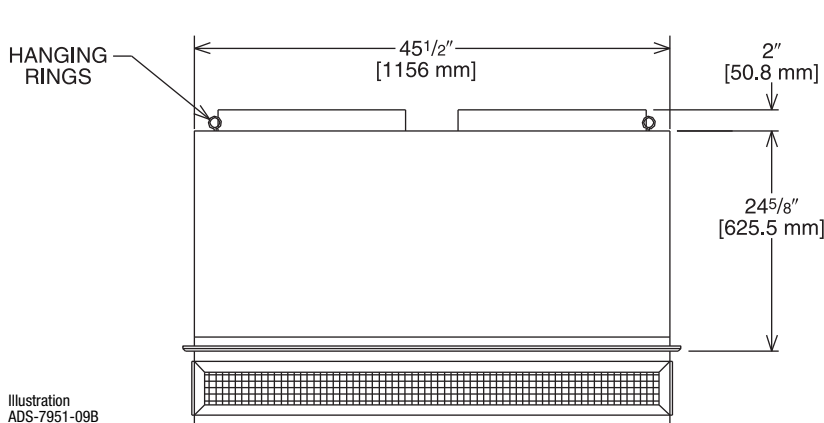


Illustration  
ADS-7951-09B

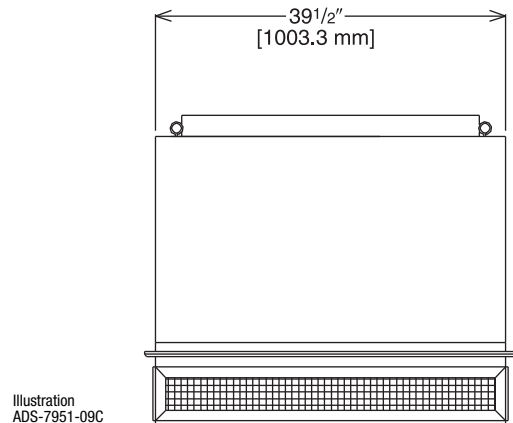


Illustration  
ADS-7951-09C

## ENGINEERING DATA<sup>①</sup>

Model No.	Flow Rate CFM [L/s]	Static Pressure in w.c. [kPa]	Throw <sup>② ③</sup> Feet [m]	Neck Velocity fpm [m/s]	Noise Level <sup>④</sup> (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

# FLUSH MOUNT CONCENTRIC DIFFUSER—FLUSH

RXRN-FA75 (7.5 Ton [26.4 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.

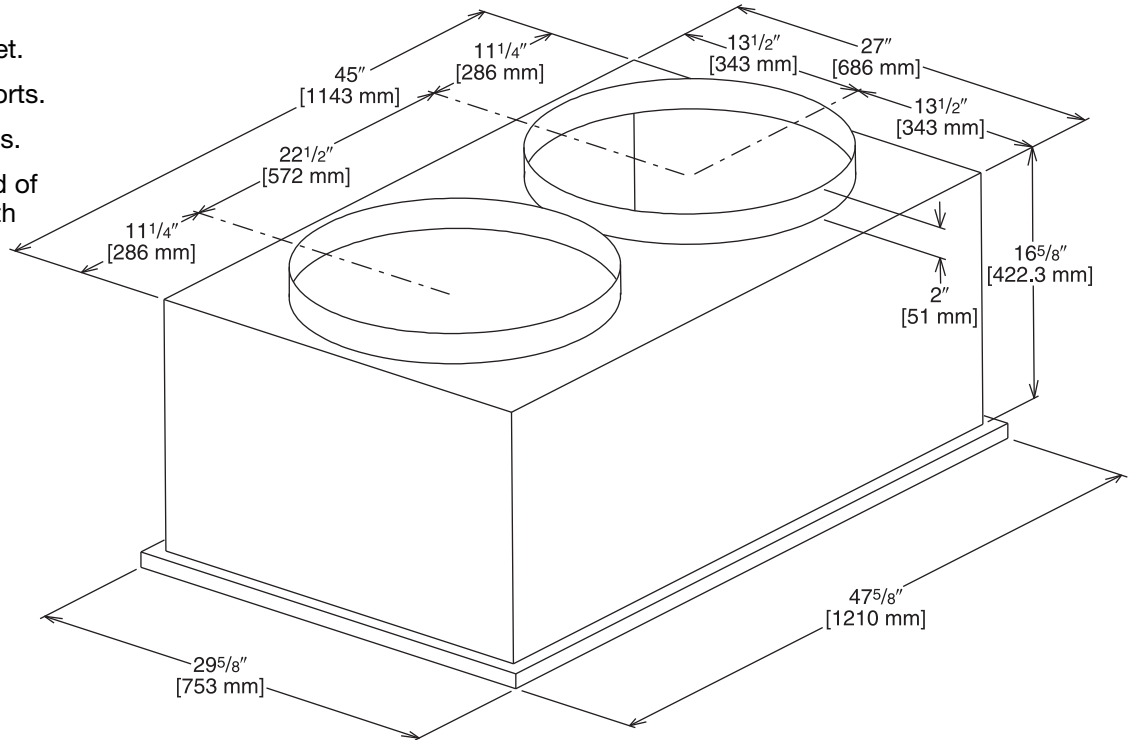


Illustration  
ADS-5348-04

## ENGINEERING DATA<sup>①</sup>

Model No.	Flow Rate CFM [L/s]	Static Pressure in. w.c. [kPa]	Throw <sup>② ③</sup> Feet [m]	Neck Velocity fpm [m/s]	Noise Level <sup>④</sup> (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 (10 Ton [35.2 kW] 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.

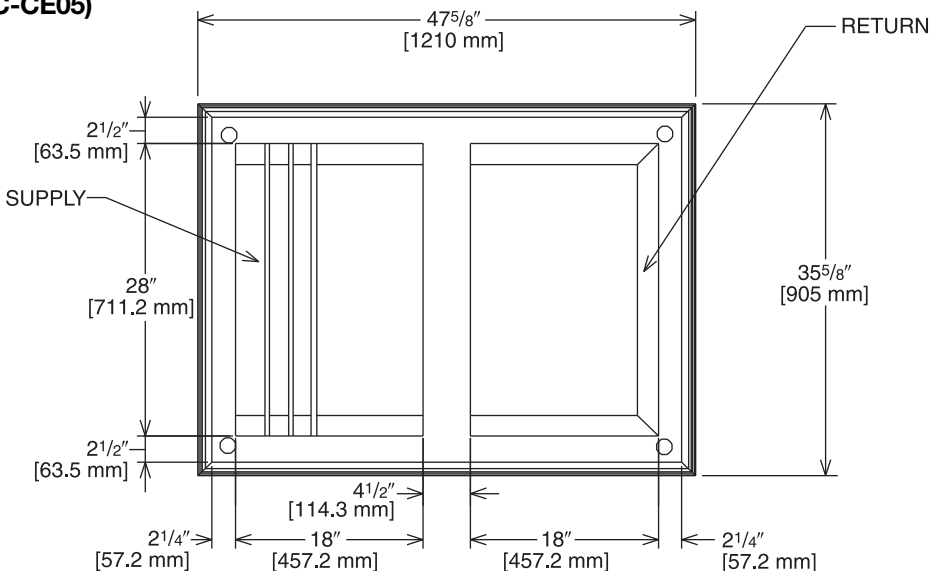


Illustration  
ADS-7951-06A

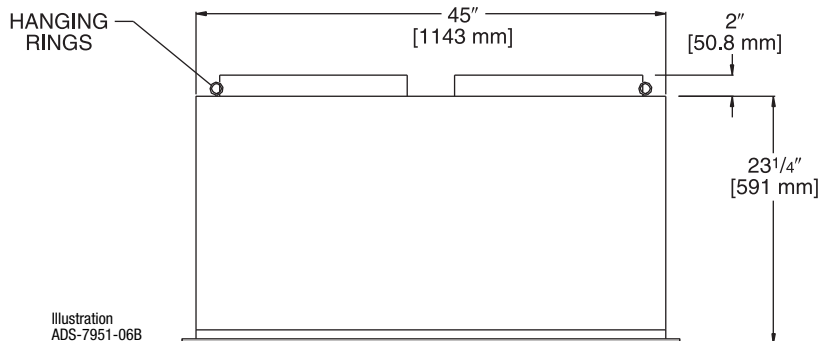


Illustration  
ADS-7951-06B

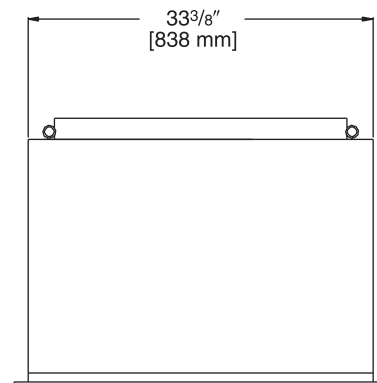


Illustration  
ADS-7951-06C

## ENGINEERING DATA<sup>①</sup>

Model No.	Flow Rate CFM [L/s]	Static Pressure in w.c. [kPa]	Throw <sup>② ③</sup> Feet [m]	Neck Velocity fpm [m/s]	Noise Level <sup>④</sup> (dba)
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

# CONCENTRIC DIFFUSER—FLUSH

## 18" x 32" [457.2 x 813 mm]

RXRN-AA76 (10 Ton [35.2 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.

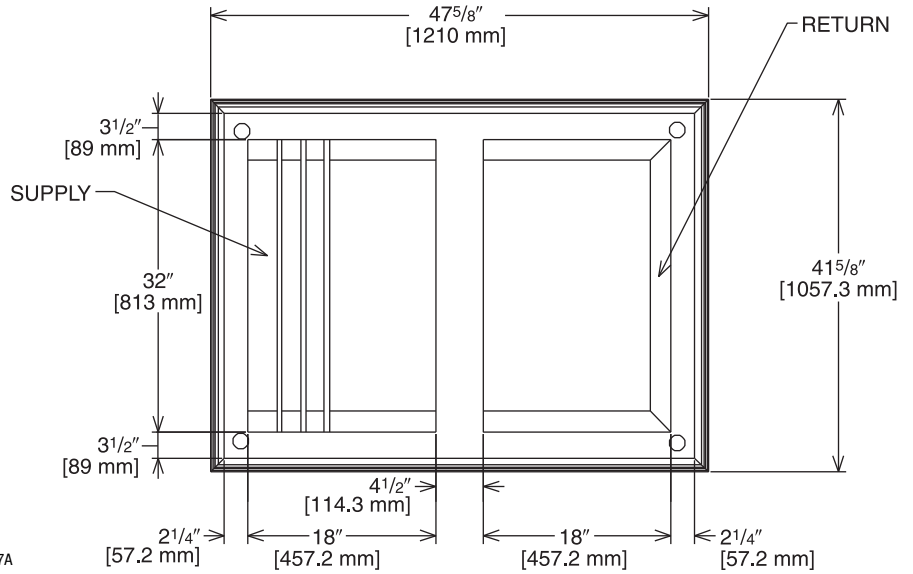


Illustration  
ADS-7951-07A

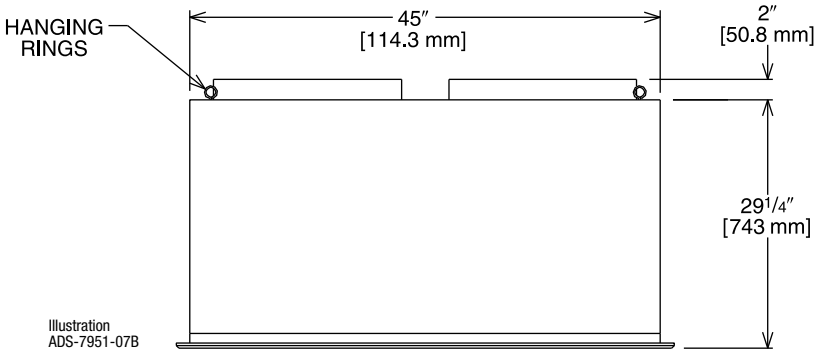


Illustration  
ADS-7951-07B

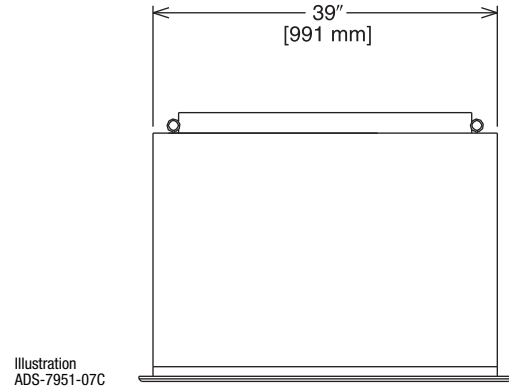


Illustration  
ADS-7951-07C

## ENGINEERING DATA<sup>①</sup>

Model No.	Flow Rate CFM [L/s]	Static Pressure in w.c. [kPa]	Throw <sup>② ③</sup> Feet [m]	Neck Velocity fpm [m/s]	Noise Level <sup>④</sup> (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. Cooling performance shall be rated in accordance with DOE and/or AHRI testing procedures. All units shall be factory assembled, internally wired, fully charged with 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.

## 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

Refrigerant circuit shall have a TXV control expansion device. External 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 250 psig and pressure tested to 550 psig. A sloped condensate drain pan shall be standard.

## 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 tool-less 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.

[ ] Designates Metric Conversions



**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.

**Unpowered Convenience Outlet**—This factory-installed option is a GFCI, 120v/15amp, 2 plug, and convenience outlet, unpowered. When the convenience outlet is powered, a service receptacle disconnect will be available. The convenience outlet is powered from the line side of the disconnect or circuit breaker, and therefore will not be affected by the position of the disconnect or circuit breaker. This option can only be ordered with the Disconnect Switch.

**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.

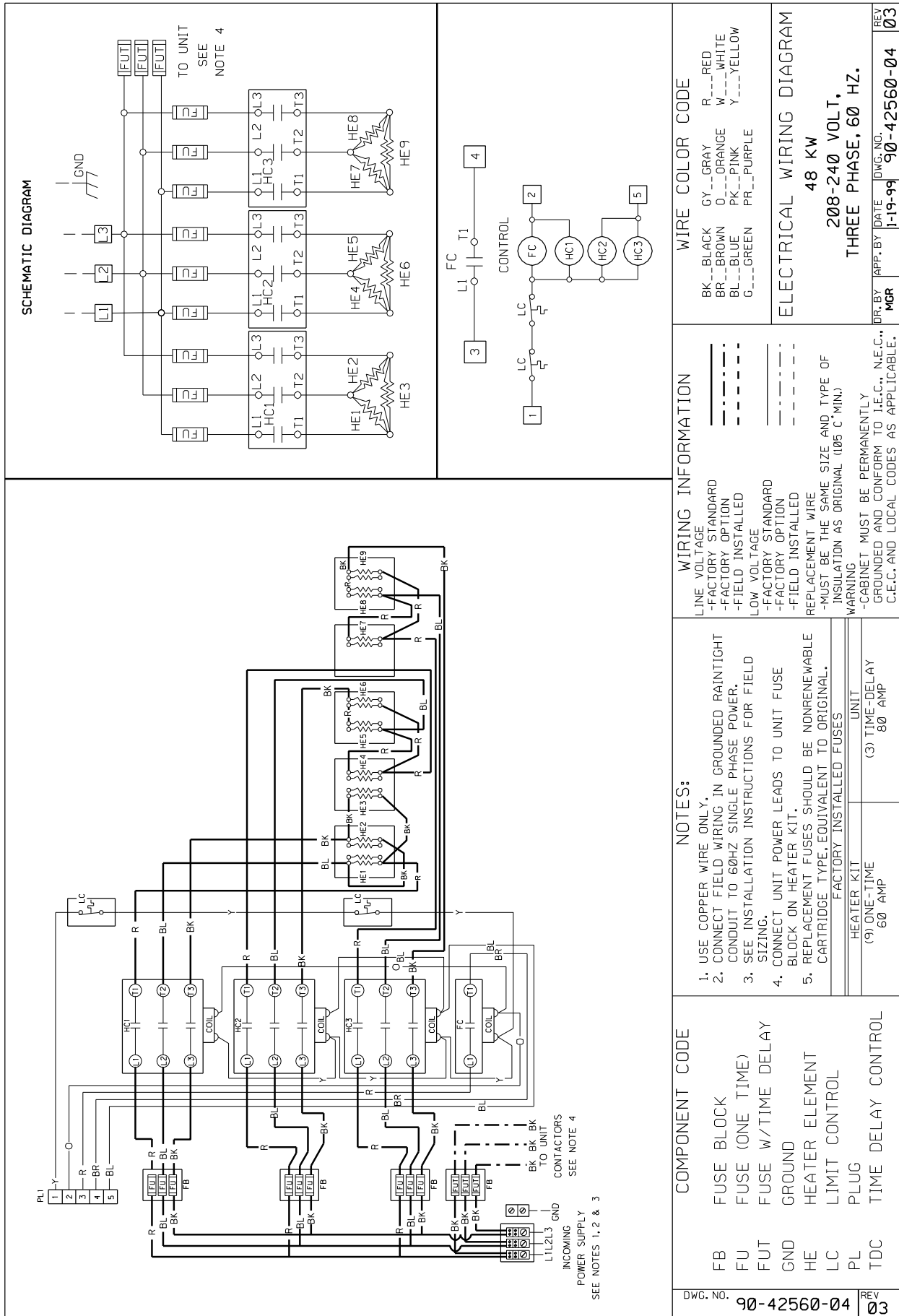
**High Pressure Cutout**—High pressure cutout shall be standard on all models. All scroll compressors shall include Internal Pressure Relief as standard.

**Low Pressure/Loss of Charge**—Low pressure switch shall be standard on all models.

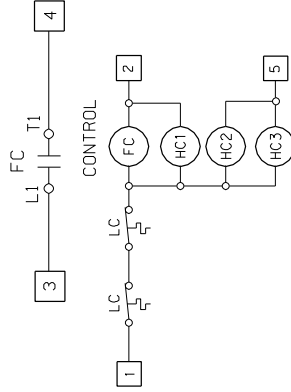
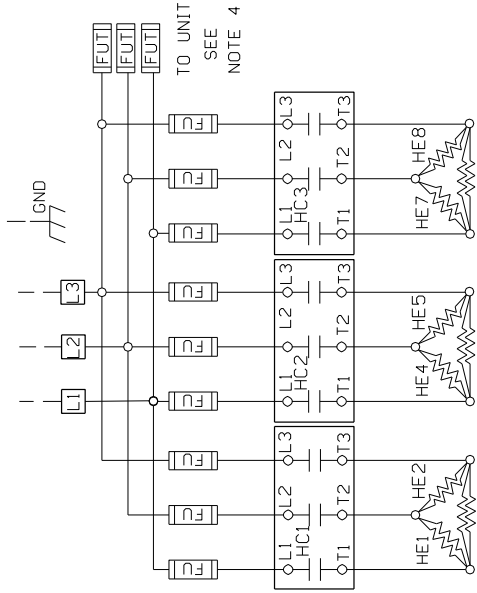
**Hinged Access Doors**—Stainless steel metal hinges and 1/4 turn fasteners are standard on the Filter/Electrical Access Door, Heat Exchanger Door and Blower Door.

**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 (frostat) control.



SCHEMATIC DIAGRAM



COMPONENT CODE

FB	FUSE BLOCK
FU	FUSE (ONE TIME)
FUT	FUSE W/TIME DELAY
GND	GROUND
HE	HEATER ELEMENT
LC	LIMIT CONTROL
PL	PLUG
TDC	TIME DELAY CONTROL

NOTES:

1. USE COPPER WIRE ONLY.
2. CONNECT FIELD WIRING IN GROUNDED RAINTIGHT CONDUIT TO 60HZ SINGLE PHASE POWER.
3. SEE INSTALLATION INSTRUCTIONS FOR FIELD SIZING.
4. CONNECT UNIT POWER LEADS TO UNIT FUSE BLOCK ON HEATER KIT.
5. REPLACEMENT FUSES SHOULD BE NONRENEWABLE CARTRIDGE TYPE, EQUIVALENT TO ORIGINAL, FACTORY INSTALLED FUSES.

HEATER KIT	UNIT
(9) ONE-TIME 60 AMP	(3) TIME-DELAY 80 AMP

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.

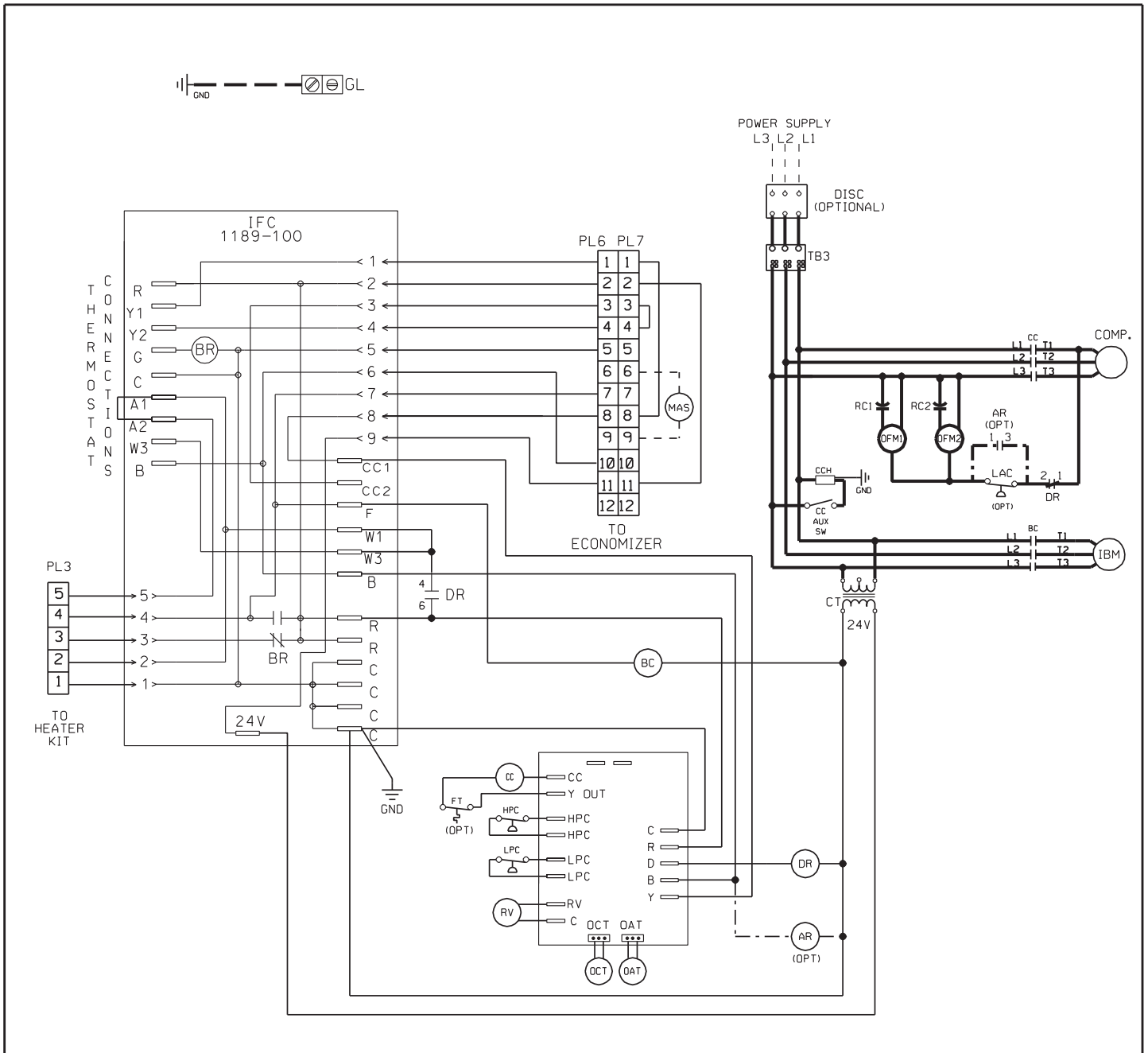
WIRE COLOR CODE

BK	BLACK	GY	GRAY	R	RED
BR	BROWN	O	ORANGE	W	WHITE
BL	BLUE	PK	PINK	Y	YELLOW
G	GREEN	PR	PURPLE		

ELECTRICAL WIRING DIAGRAM

48 KW  
208-240 VOLT,  
THREE PHASE, 60 HZ.

DR. BY	APP. BY	DATE	DWG. NO.	REV
	MGR	1-19-99	90-42560-04	03



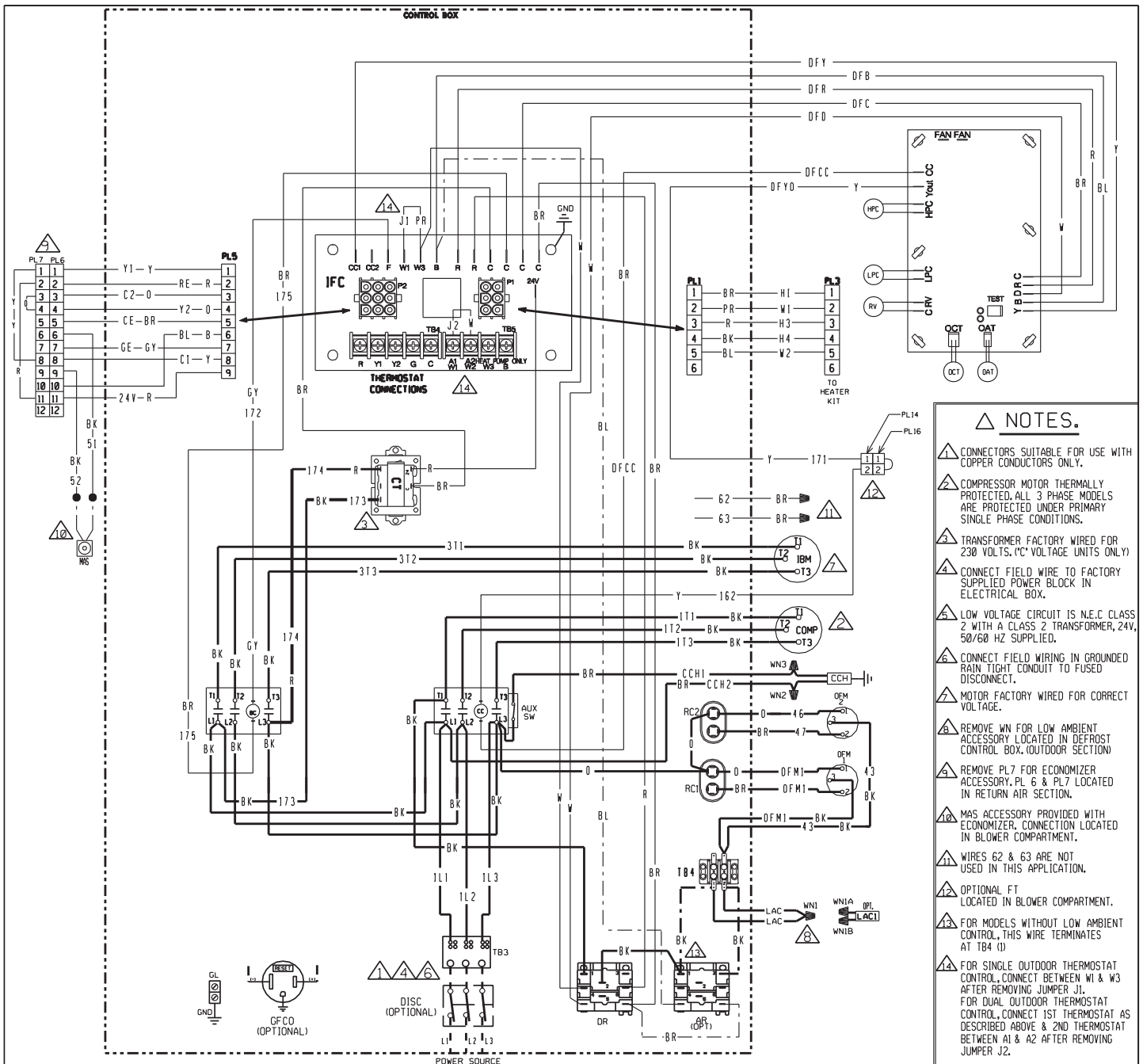
COMPONENT CODE		WIRING INFORMATION		WIRE COLOR CODE	
AUX SW	AUXILIARY SWITCH	FT	FREEZE STAT (OPT)	BK	BLACK
BC	BLOWER MOTOR CONTACTOR	HPC	HIGH PRESSURE CONTROL	BR	BROWN
BR	BLOWER RELAY	LPC	LOW PRESSURE CONTROL	BL	BLUE
CC	COMPRESSOR CONTACTOR	RV	REPLACEMENT WIRE	G	GREEN
CCH	CRANKCASE HEATER	RV	REPLACEMENT WIRE	GY	GRAY
COMP	COMPRESSOR			O	ORANGE
CT	CONTROL TRANSFORMER			PR	PURPLE
FT	FREEZE STAT			R	RED
GL	GROUND LUG			P	PURPLE
GND	GROUND			R	RED
HPC	HIGH PRESSURE CONTROL			W	WHITE
IBM	INDOOR BLOWER MOTOR			Y	YELLOW
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				

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.	

WIRING SCHEMATIC				
7-1/2 & 10 TON PACKAGED HEAT PUMP 208-230/460/575V 3 PH, 60 HZ 380-415V 3 PH, 50 HZ.				
DR. BY	APP. BY	DATE	DWG. NO.	REV
JRJ		02-10-09	90-23595-17	04



- 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. (V. VOLTAGE UNITS ONLY)
  - 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 WN FOR LOW AMBIENT ACCESSORY LOCATED IN DEFROST CONTROL BOX. (OUTDOOR SECTION)
  - 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. WIRES 62 & 63 ARE NOT USED IN THIS APPLICATION.
  - 12. OPTIONAL FT LOCATED IN BLOWER COMPARTMENT.
  - 13. FOR MODELS WITHOUT LOW AMBIENT CONTROL, THIS WIRE TERMINATES AT TB4 (1)
  - 14. FOR SINGLE OUTDOOR THERMOSTAT CONTROL, CONNECT BETWEEN W1 & W3 AFTER REMOVING JUMPER J1. FOR DUAL OUTDOOR THERMOSTAT CONTROL, CONNECT 1ST THERMOSTAT AS DESCRIBED ABOVE & 2ND THERMOSTAT BETWEEN A1 & A2 AFTER REMOVING JUMPER J2.

**COMPONENT CODE**

- |      |                                 |     |                             |
|------|---------------------------------|-----|-----------------------------|
| AR   | AUXILLIARY RELAY                | LAC | LOW AMBIENT COOLING CONTROL |
| BC   | BLOWER CONTACTOR                | LPC | LOW PRESSURE CONTROL        |
| CC   | COMPRESSOR CONTACTOR            | MAS | MIX AIR SENSOR              |
| CCH  | CRANKCASE HEATER                | OFM | OUTDOOR FAN MOTOR           |
| COMP | COMPRESSOR                      | PL  | PLUG                        |
| CT   | CONTROL TRANSFORMER             | RC  | RUN CAPACITOR               |
| DISC | DISCONNECT SWITCH               | TB  | TERMINAL BLOCK              |
| DR   | DEFROST RELAY                   | ▲   | WIRE NUT                    |
| EHR  | ELECTRIC HEAT RELAY             |     |                             |
| FT   | FREEZE STAT                     |     |                             |
| GFCO | GROUND FAULT CONVENIENCE OUTLET |     |                             |
| GL   | GROUND LUG                      |     |                             |
| GND  | GROUND                          |     |                             |
| HPC  | HIGH PRESSURE CONTROL           |     |                             |
| IBM  | INDOOR BLOWER MOTOR BELT DRIVE  |     |                             |
| 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 | PR | PURPLE |
| BL | BLUE  | R  | RED    |
| G  | GREEN | W  | WHITE  |
| GY | GRAY  | Y  | YELLOW |

**WIRING DIAGRAM**

7-1/2 & 10 TON PACKAGED HEAT PUMP  
 208-230/460/575V 3 PH, 60 HZ.  
 380-415V 3 PH, 50 HZ.

DR. BY	APP. BY	DATE	DWG. NO.	REV
JRJ		1-15-09	90-23595-16	04

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

**GENERAL TERMS OF LIMITED WARRANTY\***

Rheem 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.

<b>Compressor</b>	
3 Phase, Commercial Applications.....	Five (5) Years
<b>Parts</b>	
3 Phase, Commercial Applications.....	One (1) Year

**\*For complete details of the Limited and Conditional Warranties, including applicable terms and conditions, contact your local contractor or the Manufacturer for a copy of the product warranty certificate.**











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*In keeping with its policy of continuous progress and product improvement, Rheem reserves the right to make changes without notice.*

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