



FRIEDRICH

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Commercial Renaissance™ Line F-Series™ Packaged Air Conditioners



RACD Series

Cooling Efficiencies up to: 11.2 EER & 14.8 IEER

Nominal Sizes: 7.5, 8.5, 10 & 12.5 Tons [26.4, 29.9, 35.2 & 44.0 kW]

Cooling Capacities: 88k Btu/h [25.78 kW] to 148k Btu/h [43.36 kW]

Refrigerant Type: R-454B

ASHRAE 90.1 2022 Compliant Models



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RACDYB STANDARD FEATURES INCLUDE:

- Factory charged with R-454B refrigerant
- Wired and run tested
- Scroll compressors with internal line break overload and high pressure protection
- Models have two stages of cooling
- Convertible airflow – vertical down flow or horizontal side flow
- Forkable base rails for easy handling and lifting
- Cooling operation up to 125°F ambient
- MicroChannel evaporator and condenser coil
- PlusOne® ServiceSmart package includes:
 - Qwik-Change Flex-Fit Rack
 - Qwik-Slide Blower Assembly
 - Qwik-Clean Drain Pan
- Overflow condensate sensor
- PlusOne® Diagnostics with Dual 7-Segment LED Display to meet code compliance
- One-piece top cover and base pan with drawn supply and return opening
- Two-piece control door
- ¼ turn fasteners on filter access door
- Color-coded and labeled wiring
- External lockable gauge ports
- TXV refrigerant metering system
- Solid-core liquid line filter drier
- High pressure and low pressure/loss of charge protection with built in Smart Logic
- Insulation encapsulated throughout entire unit
- High performance belt drive motor with variable pitch pulleys and quick adjust belt system
- Blower with Variable Frequency Drive (VFD) control is standard
- Industry standard footprint and matching connections
- MERV 8 & MERV 13 filters are available as a field-installed option

Designing for Sustainability with Low GWP



For 2025, the Environmental Protection Agency (EPA) has set a global warming potential (GWP) limit of 700 for refrigerant used in most heating and cooling systems. This new requirement will result in a 78%¹ lower GWP than previous-generation refrigerants—with only minimal changes to system installation. For us, this is another step toward our ongoing sustainability goal of reducing greenhouse gas emissions, while still delivering an exceptional level of energy efficient, dependable comfort.

¹When comparing the GWP of R-454B to R-410A refrigerant.

FACTORY INSTALLED OPTIONS:

- Louvered panels
- Hinged access doors
- PlusOne® HumidiDry® Dehumidification System
- Low ambient/freeze stat
- Non-powered convenience outlet
- Downflow Economizer (Title 24 and ASHRAE 90.1 2022 Compliant)
- Supply and return smoke detector
- ElectroFin® E-Coat for MicroChannel Condenser Coil
- ClearControl™ Direct Digital Control (DDC)
- Comfort Alert®/Phase-monitor Protection

FIELD INSTALLED ACCESSORY EQUIPMENT:

Accessory	Model Number	Factory Installation Available?
Economizers		
Non-DDC Economizer with Single Enthalpy (Downflow) <i>MicroMetl Economizer with Siemens Controls</i>	RXRD-11MDDAM3	Yes
Non-DDC Economizer with Single Enthalpy (Downflow) <i>Ruskin Rooftop Systems Economizer with RRS Basic Controller</i>	RXRD-41MDDAM3	Yes
Non-DDC Economizer with Single Enthalpy (Downflow) <i>Ruskin Rooftop Systems Economizer with Siemens Controller</i>	RXRD-51MDDAM3	Yes
Non-DDC Economizer with Single Enthalpy (Horizontal) <i>MicroMetl Economizer with Siemens Controls</i>	RXRD-11MDHAM3	No
Non-DDC Economizer with Single Enthalpy (Horizontal) <i>Ruskin Rooftop Systems Economizer with RRS Basic Controller</i>	RXRD-41MDHAM3	No
Non-DDC Economizer with Single Enthalpy (Horizontal) <i>Ruskin Rooftop Systems Economizer with Siemens Controller</i>	RXRD-51MDHAM3	No
Non-DDC Economizer with No Controls (Downflow) <i>MicroMetl Economizer, Belimo Actuator</i>	RXRD-31MDDAM3	No
DDC Economizer with Single Enthalpy (Downflow) <i>MicroMetl Economizer with Honeywell Controller</i>	RXRD-01MDDBM3	Yes
DDC Economizer with Single Enthalpy (Horizontal) <i>MicroMetl Economizer with Honeywell Controller</i>	RXRD-01MDHBM3	No
Economizer Universal DDC Interface Kit	RXXR-DDC01	Yes

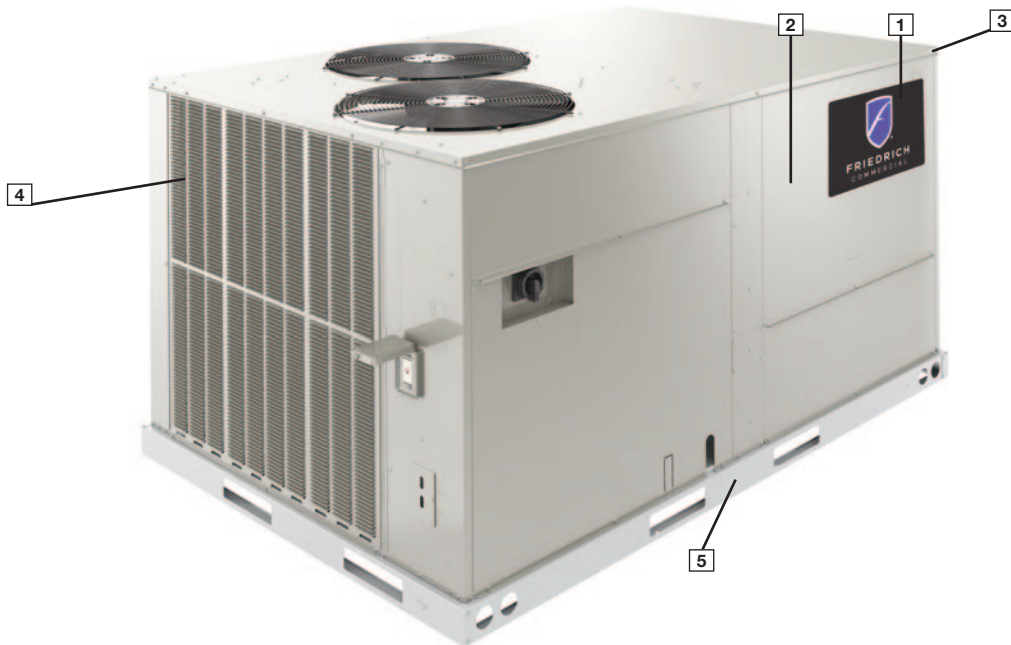
FIELD INSTALLED ACCESSORY EQUIPMENT (CONTINUED):

Accessory	Model Number	Factory Installation Available?
Comfort Alert ¹ (3 Phase) DDC	RXR-AX01	Yes
Comfort Alert ¹ (3 Phase) Non-DDC	RXR-AX02	Yes
Communication Card, BACnet	RXR-AY01	No
Communication Card, LonWorks	RXR-AY02	No
Concentric Adapter 7.5/8.5 Ton Drop	RXMC-DD01	No
Concentric Adapter 10 Ton Drop	RXMC-DD02	No
Concentric Adapter 12.5 Ton Drop	RXMC-DD03	No
Concentric Diffuser 7.5/8.5 Ton Drop	RXRN-AED2000	No
Concentric Diffuser 7.5/8.5 Ton Flush	RXRN-AEF2000	No
Concentric Diffuser 10.0 Ton Drop	RXRN-AED3415	No
Concentric Diffuser 10.0 Ton Flush	RXRN-AEF3415	No
Concentric Diffuser 12.5 Ton Drop	RXRN-AED3618	No
Concentric Diffuser 12.5 Ton Flush	RXRN-AEF3618	No
Convenience Outlet, Unwired	RXR-BN01	Yes
Dual Enthalpy Kit (for Honeywell JADE™)	RXR-BV01	No
Dual Enthalpy Kit DDC (for Honeywell DDC)	RXR-BV02	No
Dual Enthalpy, Temperature and Humidity Sensor (for Ruskin Basic Controller)	PD955977	No
Dual Enthalpy, Temperature and Humidity Sensor (for Siemens Controller)	PD555460	No
Electric Heater Kits	RXJJ-DD10CP	Yes
	RXJJ-DD20CP	Yes
	RXJJ-DD30CP	Yes
	RXJJ-DD40CP	Yes
	RXJJ-DD10DNV	Yes
	RXJJ-DD15DNV	Yes
	RXJJ-DD20DNV	Yes
	RXJJ-DD30DNV	Yes
	RXJJ-DD40DNV	Yes
	RXJJ-DD10Y	No
	RXJJ-DD15Y	No
	RXJJ-DD20Y	No
	RXJJ-DD30Y	No
	RXJJ-DD40Y	No
Flue Diverter	RXR-DFG04	No
Freeze Stat Kit	RXR-AM01	Yes
Fresh Air Damper, Manual	RXRF-ADA1	No
Fresh Air Damper, Motorized	RXRF-ADB1	No
Fresh Air Damper, Motorized (DDC)	RXRF-ADC1	No
Low-Ambient Control Kit	RXR-A04	Yes

Accessory	Model Number	Factory Installation Available?
MERV 8 Filter 7.5 & 8.5 Ton	RXMF-M08A22020	No
MERV 8 Filter 10 & 12.5 Ton	RXMF-M08A22520	No
MERV 13 Filter 7.5 & 8.5 Ton	RXMF-M13A22020	No
MERV 13 Filter 10 & 12.5 Ton	RXMF-M13A22520	No
Outdoor Coil Louver Kit – RACD 7.5 & 8.5 Ton	RXR-ADD04A	Yes
Outdoor Coil Louver Kit – RACD 10 & 12.5 Ton	RXR-ADD04B	Yes
Power Exhaust (230V) Kit, Convertible (MicroMetl)	RXR-CDF01C	No
Power Exhaust (460V) Kit, Convertible (MicroMetl)	RXR-CDF01D	No
Power Exhaust (230V) Kit for Downflow Economizer (RRS)	RXR-RDF01C	No
Power Exhaust (460V) Kit for Downflow Economizer (RRS)	RXR-RDF01D	No
Power Exhaust (575V) Kit for Downflow Economizer (RRS)	RXR-RDF01Y	No
Power Exhaust (230V) Kit for Horizontal Economizer (RRS)	RXR-RDF03C	No
Power Exhaust (460V) Kit for Horizontal Economizer (RRS)	RXR-RDF03D	No
Power Exhaust (575V) Kit for Horizontal Economizer (RRS)	RXR-RDF03Y	No
Roofcurb, 14"	RXKG-DDD14	No
Roofcurb, 14" Welded	RXKG-SD14	No
Roofcurb, 24"	RXKG-DDD24	No
Roofcurb, 24" Welded	RXKG-SD24	No
Roofcurb Adapter ²	RXR-DDCAE	No
Sensor, Carbon Dioxide (Wall Mount)	RXR-AR02	No
Sensor, Room Humidity	RHC-ZNS4	No
Sensor, Room Temperature and Relative Humidity	RHC-ZNS5	No
Single Point Wiring Kit	RXJX-AC0605	No
	RXJX-AC0805	No
	RXJX-AD0605	No
	RXJX-AC0909	No
	RXJX-AD0609	No
Smoke Detector Kit, Return	RXR-BS03	No
Smoke Detector Kit, Return/Supply	RXR-BS04	No
Unfused Service Disconnect	RXR-BP01	Yes

¹One (1) Comfort Alert required per compressor

²Compatible with roofcurbs RXKG-CAE14 or RXKG-CAE24



Cabinet and Foundation

Outwardly, the large Friedrich® *Commercial Series* label (1) identifies the brand to the customer. The sheet-metal cabinet (2) uses 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) as well as gasket-protected panels and screws. The Friedrich hail guard (optional) (4) sets the standard for coil protection in the industry. Electro deposition, baked-on enamel that is tested to withstand a rigorous 1000-hour salt spray test, per ASTM B117.

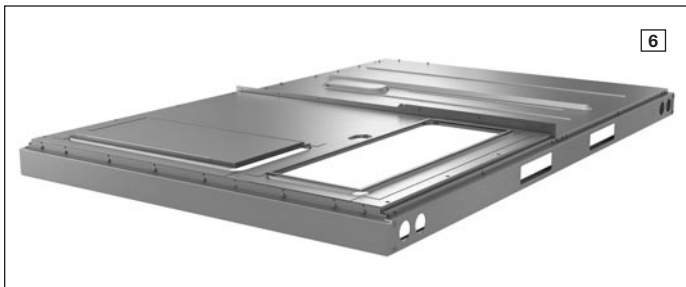
Anything built to last must start with the right foundation. Following that model, the foundation is comprised of 14-gauge, commercial-grade, full perimeter base rails (5) that integrate fork slots and rigging holes to save set-up time on the job site.

Easy Installation

The Renaissance line features a footprint that simplifies the replacement process by eliminating the need for a new curb adapter and being able to match inlet, outlet and electrical connections of the most common/industry-standard configurations.

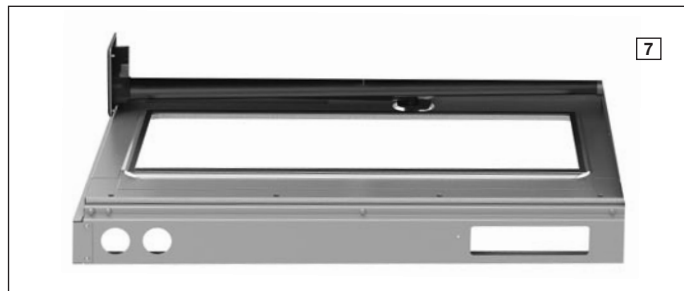
Base Pan

The base pan is stamped to form a 7/8" flange around the supply and return cover, which eliminates the worry of water entering the conditioned space (6). All insulation is secured with both adhesive and mechanical fasteners, and all edges are hidden.



Drain Pan

The Qwik-Clean Drain Pan (7) is made from a composite material that resists the growth of harmful bacteria. With both side and center drain options, the drain pan slides out completely for easy cleaning. It also features a standard overflow switch.



Test Standards

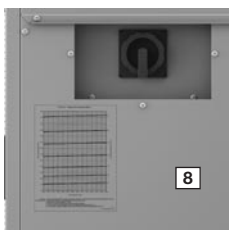
During development, each unit was tested to U.L. 60335-2-40, AHRI 340-360 as well as other Friedrich-required reliability tests. Friedrich adheres to stringent ISO 9002 quality procedures, and each unit bears the U.L. and AHRI certification labels located on the unit nameplate. Contractors can be assured that when a Friedrich package unit arrives at the job, it is ready to go with a factory charge and quality checks.

Easy Access

All major compartments are easily accessible from the front of the unit: the electrical compartment, blower compartment, heating section, and outdoor section. Each compartment has mechanical fasteners. Panels are permanently embossed with the compartment name (e.g. control/filter access, blower access, and electric heat access). The filter compartment is accessed through a large, mechanically fastened panel. Information is readily available on the outside of the panel, with a nameplate that contains the model and serial numbers, electrical data, and other important unit information. Hinged access is available as an option for the electrical, blower, and filter compartments.

Charging Charts, Wiring Diagrams, & Labels

The unit charging chart is located on the outside of the compressor access panel. Electrical wiring diagrams are found on the control box cover, which allows contractors to move them to more readable locations. The model and serial numbers are located on the right of the control box. Having this information on the inside means easier model identification for the life of the product. The production line quality test assurance label is also placed in this location ([8]).



Filter Rack

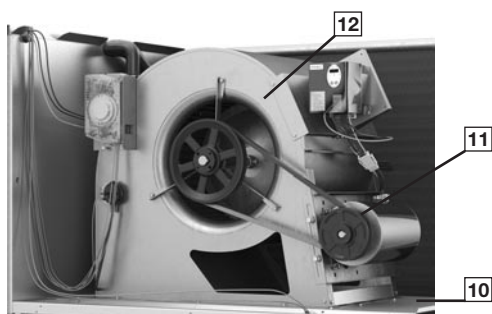
Located within the filter compartment, the Qwik-Change Flex-Fit Rack ([9]) allows easy changeover between 2" and 4" standard size and readily available filters.



Blower Assembly

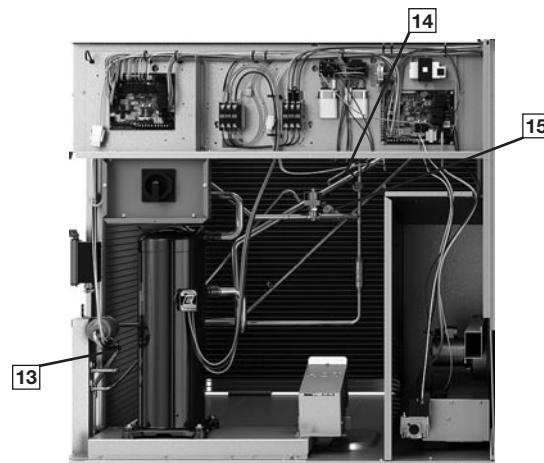
Removing three screws provides full access to the blower compartment. Inside, the Qwik-Slide Blower Assembly ([10]) is incredibly easy to access and remove. This makes servicing internal components such as blower motor, TXV, and microchannel coil much easier. The entire assembly slides out by removing the 3/8" screws from the blower retention bracket. The adjustable motor pulley ([11]) 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, Friedrich® offers drives 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 ([12]) and blower scroll provide quiet and efficient airflow. The blower sheave is secured by an "H" bushing that firmly secures the pulley to the blower shaft, resulting in years of trouble-free operation. The "H" bushing allows for easy removal of the blower pulley from the shaft. This is an improvement from a set screw, which can score the shaft and create burrs that make blower-pulley removal difficult.



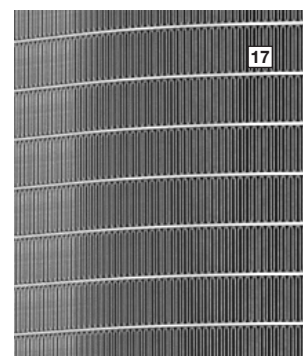
High and Low Pressure Switches & Freeze Stat

High pressure ([13]) and low pressure ([14]) switches are standard. They are located in the outdoor section along with the low-ambient control ([15]). The optional Freeze Stat ([16]) (standard on models with ClearControl), is clipped onto the suction line in the blower compartment. The low ambient control allows the compressor to operate down to 0 degrees ambient temperature by cycling the outdoor fans on high pressure. The high-pressure switch shuts off the compressors if pressures exceeding 610 PSIG are detected. The low-pressure switch shuts off the compressors if low pressure is detected due to loss of charge. Built-in Smart Logic reduces nuisance calls by only shutting off compressors after the third detection. The freeze stat protects the compressor if the evaporator coil gets too cold (below freezing) due to low airflow.



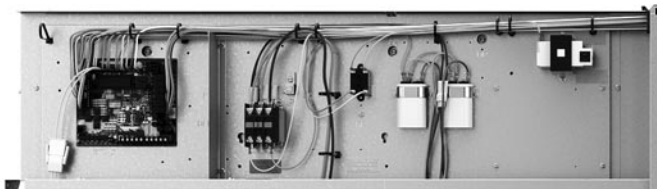
MicroChannel Evaporator & TXV

The MicroChannel Evaporator ([17]) is accessible through the blower compartment, and through the filter rack, to simplify cleaning. The evaporator uses microchannel technology for maximum heat transfer, light weight, fewer manually brazed connections and reduced refrigerant charge. The TXV metering device maintains superheat over a wide range of varying temperatures optimizing unit performance for all conditions.



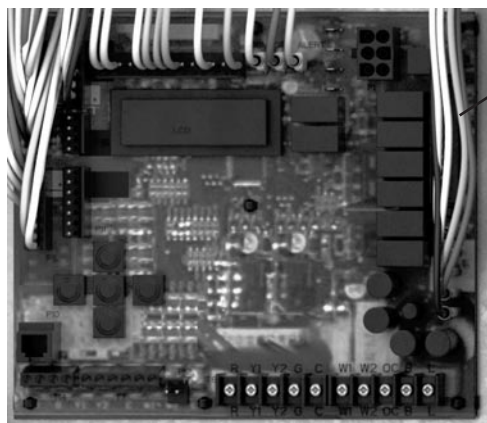
Control Box

Inside the control box ([18]), each electrical component is clearly labeled; that label matches the component to the wire diagram for ease of trouble shooting. All wiring is numbered on each end of the termination and is color-coded to match the wiring diagram. The control transformer has a low voltage circuit breaker that trips if an electrical short occurs. There is a blower contactor and compressor contactor for each compressor.



ClearControl

The optional ClearControl system consisting of a rooftop unit controller, temperature sensors, and pressure sensors, allows real-time monitoring and communication between rooftop units. The Rooftop Unit Controller (RTU-C) that is factory mounted and wired into the control panel. The RTU-C is a solid-state, micro-processor-based control board that provides flexible control and extensive diagnostics for all unit functions. The RTU-C, using proportional/integral control algorithms, performs specific unit functions that govern unit operation in response to zone conditions, system temperatures, system pressures, ambient conditions, and electrical inputs. The RTU-C features a 16 x 2 character LCD display and a five-button keypad for local configuration and direct diagnosis of the system ([20]). Features include a clogged filter switch (CFS), fan proving switch (FPS), return air temperature sensor (RAT), discharge air temperature sensor (DAT), and outdoor air temperature sensor (OAT). Freeze sensors (FS) are used in place of freeze stats to allow measurement of refrigerant suction line temperatures.



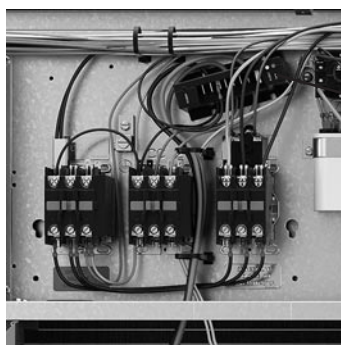
[20]

The RACD with the RTU-C is specifically designed to be applied in four distinct applications:

- 1. BACnet Communication** — The RACD is compatible with a third party building management system that supports the BACnet Application Specific Controller device profile, with the use of a field installed BACnet Communication Module. The BACnet Communication Module plugs onto the unit RTU-C controller and allows communication between the RTU-C and the BACnet MSTP network. A zone sensor, a BACnet network zone sensor, a BACnet thermostat, or DDC controller may be used to send the zone temperature or thermostat demands to the RTU-C. The BACnet Communication Module is compatible with MSTP EIA-485 daisy chain networks communicating at 38.4 bps. It is compatible with twisted pair, shielded cables.
- 2. LonWorks Communication** — The RACD is compatible with a third party building management system that supports the LonMark Space Comfort Controller (SCC) functional profile or LonMark Discharge Air Controller (DAC) functional profile. This is accomplished with a field installed LonMark communication module. The LonMark Communication Module plugs onto the RTU-C controller and allows communication between the RTU-C and a LonWorks network. A zone sensor, a LonTalk network zone sensor, or a LonTalk thermostat or DDC controller may be used to send the zone temperature or thermostat demands to the RTU-C. The LonMark Communication Module utilizes an FTT-10A free topology transceiver communicating at 78.8 kbps. It is compatible with Echelon qualified, twisted pair cable, Belden 8471, or NEMA Level 4 cables. The module can communicate up to 1640 feet with no repeater. The LonWorks limit of 64 nodes per segment applies to this device.
- 3. 24V Thermostat Compatibility** — The RACD is compatible with a programmable 24 volt thermostat. Connections are made via conventional thermostat screw terminals. Extensive unit status and diagnostics are displayed on the LCD screen of the RTU-C.
- 4. Zone Sensor Compatibility** — The RACD is compatible with a zone sensor and a mechanical or solid state time clock connected to the RTU-C. Extensive unit status and diagnostics are displayed on the LCD screen of the RTU-C.

Comfort Alert

A factory or field installed Comfort Alert ([21]) module is available for power phase-monitoring protection and additional compressor diagnostics. The alarms can be displayed on the RTU-C display, through the (BAS) network, or connected to the "L-Terminal" of a thermostat for notification.



[21]

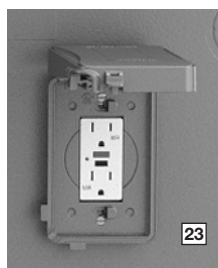
Variable Frequency Drive

The supply fan Variable Frequency Drive (VFD) (22) optimizes energy usage year round by providing a lower speed for first stage cooling operation, improving IEER over the conventional constant fan system. Operating in the constant fan mode at the reduced speed can use as little as $\frac{1}{5}$ of the energy of a conventional constant fan system. Also, by operating at a lower speed on first stage cooling, up to 126% more moisture is removed, improving comfort during low load operation. VFD comes standard. The VFD supply fan factory option meets California Title 24 and ASHRAE 90.1-2022 requirements for multi blower speed control. VFD also ramps up to the desired speed, reducing stress on the supply fan components and noise from a sudden inrush of air. Because the airflow is cut in half during first stage cooling and constant fan operation, noise is much less during these modes of operation.



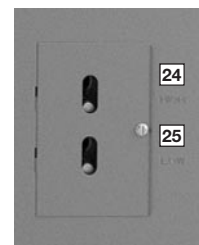
Convenience Outlet

For added convenience in the field, the factory-installed option of non-powered convenience (23) outlet is available. Low and high voltage can enter from the side or through the base. Low-voltage connections are made through the low-voltage terminal strip. For ease of access, the U.L.-required low voltage barrier can be temporarily removed for low-voltage termination and then reinstalled. The high-voltage connection is terminated at the number 1 compressor contactor. The suggested mounting for the field-installed disconnect or circuit breaker is on the exterior side of the electrical control box.



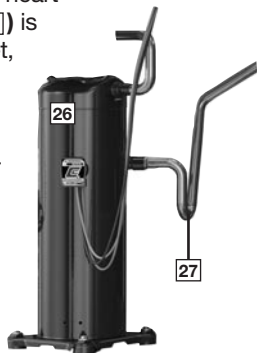
External Lockable Gauge Ports

To the right left of the compressor compartment are the externally mounted lockable gauge ports. They are permanently identified by embossed lettering that identifies the compressor circuit, high pressure connection, (24) and low pressure connection (25). Because the gauge ports are mounted externally, an accurate diagnostic of system operation can be performed without removing access panels. Brass caps on the Schrader fitting ensure the gauge parts are leak proof.



Compressor

The compressor compartment houses the heart-beat of the unit. The scroll compressor (26) is known for its long life and for reliable, quiet, and efficient operation. The suction and discharge lines are designed with shock loops (27) to absorb the strain and stress that the starting torque, steady state operation, and shut-down cycle impose on the refrigerant tubing. Units have two stages of efficient cooling operation. Each unit comes standard with a filter dryer.



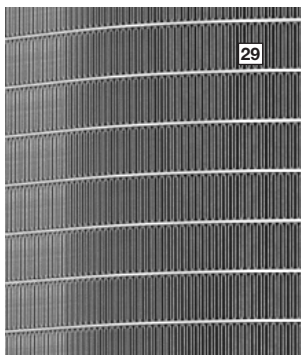
Condenser Fans

The condenser fan motors (28) can easily be accessed and maintained through the top of the unit. A down-mount fan provides corrosion protection and easy removal. The polarized plug connection allows the motor to be changed quickly and eliminates the need to snake wires through the unit.



MicroChannel Condenser Technology

The outdoor coil uses the latest MicroChannel technology (29) for the most effective method of heat transfer. The outdoor coil is protected by optional louvered panels, which allow unobstructed airflow while protecting the unit from both the environment and vandalism.



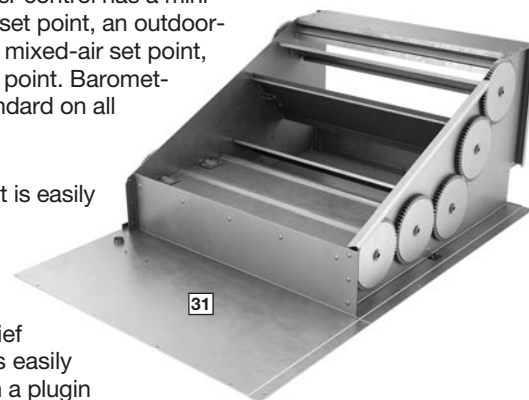
Coil Coating

Every unit offers the option of factory-applied ElectroFin E-Coat condenser coating (30) that delivers superior corrosion resistance for outdoor coils to operate in the harshest of environments.



Economizer and Dampers

Each unit is designed for both down flow or horizontal applications (31) for job configuration flexibility. The return air compartment can also contain an economizer. Each unit is pre-wired for the economizer to allow quick, plug-in installation. Available as a factory-installed option, the economizer provides free cooling when outdoor conditions are suitable and also provides fresh air to meet local requirements. It comes standard with single enthalpy controls, which can be upgraded to dual enthalpy easily in the field. The economizer control has a minimum position set point, an outdoor-air set point, a mixed-air set point, and a CO₂ set point. Barometric relief is standard on all economizers.



Power Exhaust is easily field-installed.

The power exhaust is housed in the barometric relief opening and is easily slipped in with a plugin assembly. The wire harness to the economizer also has accommodations for a smoke detector.

The damper minimum position, actual damper position, power exhaust on/off set point, mixed air temperature limit set point, and Demand Controlled Ventilation (DCV) set point can be read and adjusted at the unit controller display or remotely through a network connection. The Space CO₂ level, mixed air temperature, and Economizer Status (free cooling available, single or dual enthalpy) can be read at the unit controller display or remotely through a network connection. Economizer faults will trigger a network alarm and can be read at the unit controller display or remotely through a network connection.

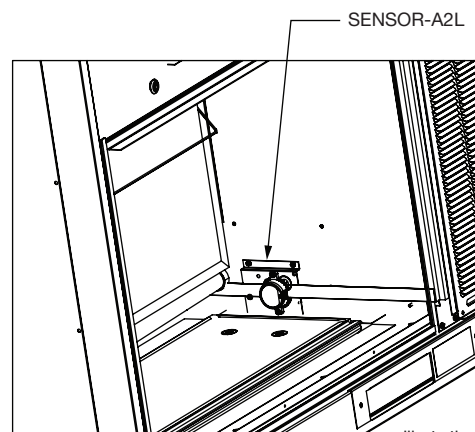
Roofcurb

The Friedrich® roofcurb (32) is made for tool-less assembly at the jobsite by engaging tabs in slots of adjacent curb sides, which makes the assembly process quick and easy.

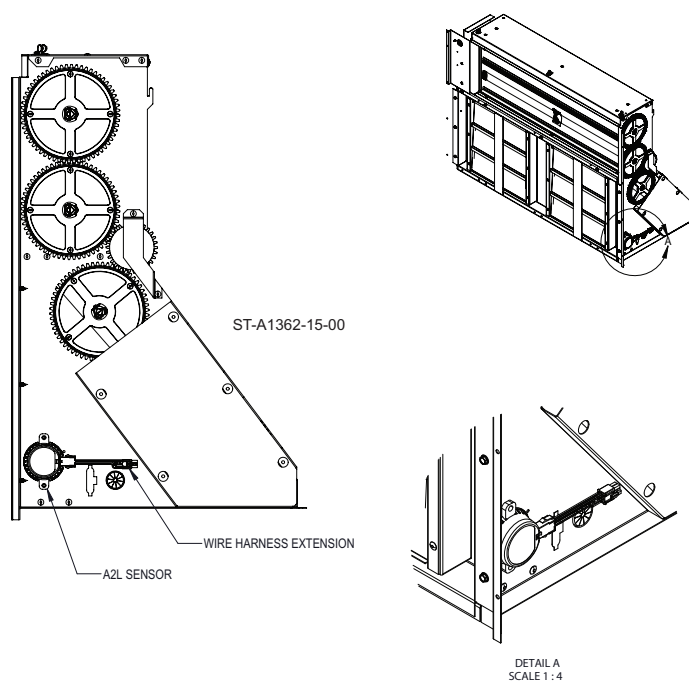


Refrigerant Leak Detection

In the event of a detected refrigerant leak, the refrigerant leak detection sensor will trigger the mitigation procedure that shuts off the compressor(s) and turns on the indoor blower motor.



If a field-installed vertical economizer will be installed during the unit installation, the A2L leak detection sensor must be relocated as shown below. For More information, refer to the unit installation and Operation Manual.



HUMIDIDRY SYSTEM FEATURES

HumidiDry is Friedrich®'s exclusive dehumidification package unit solution. It delivers maximum humidity control without compromising desired temperature set point for a high degree of comfort. HumidiDry maintains humidity levels at a desired set point when there's little or no demand for air conditioning. The HumidiDry rooftop unit is controlled by a thermostat and humidistat. The thermostat takes priority on single-stage system. When the thermostat is activated by temperatures that exceed it set point, HumidiDry operates like a standard rooftop unit. It can operate on first stage cooling when demand is low or at full capacity when air conditioning load is high. Unlike other rooftop or reheat units, HumidiDry is uniquely designed so the VFD will operate at a low speed, increasing moisture removal during first-stage cooling operation. This provides initial defense for controlling humidity. When temperature is desirable but humidity exceeds the humidistat set point, the HumidiDry rooftop unit initiates a dehumidification cycle using a combination of hot gas and sub-cooled liquid reheat and the VFD operates at low speed. During this cycle, the HumidiDry rooftop unit delivers dry, neutral air. On a two-stage system, it is possible for both a thermostat and humidistat to register readings above set point. Under this condition, the system runs in the high stage dehumidification cycle, and the VFD operates on high speed. This provides dry conditioned air.

Figure 1 shows the refrigerant path during the normal cooling mode. The liquid refrigerant leaves the TXV with the sudden pressure drop causing the liquid to expand to a vapor and absorbing the heat from the supply air going through the evaporator coil. The refrigerant vapor then travels to the compressor where it is elevated to a higher pressure and temperature. The superheated refrigerant vapor next carries the heat to the outside coil where the heat is then rejected and the refrigerant condenses into a subcooled liquid where the process repeats itself.

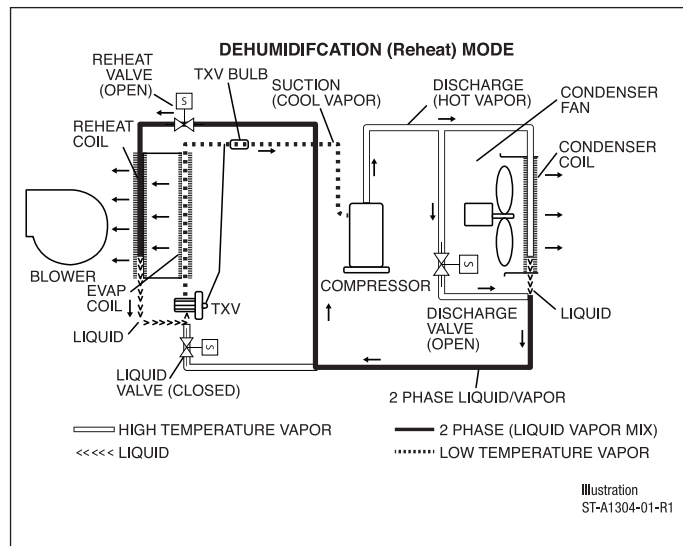
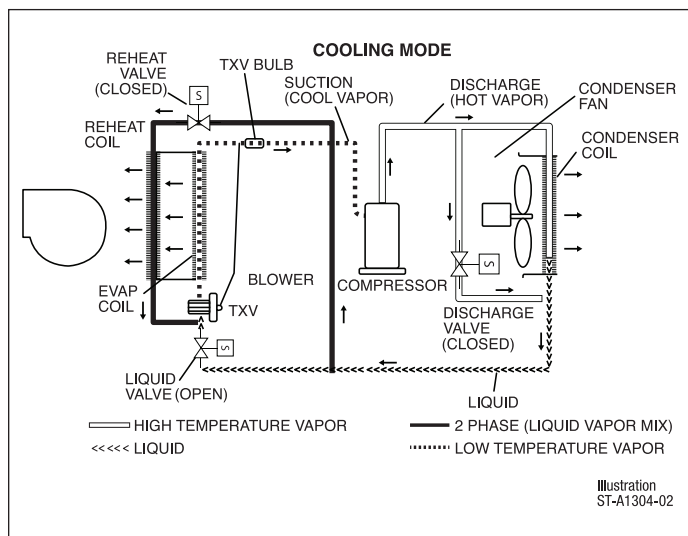


Figure 2 shows the refrigerant path during the reheat mode. When the reheat cycle is energized by the RTU-C, the reheat solenoid valve, upstream of the reheat coil opens. The liquid solenoid valve ahead of the TXV, closes. The discharge solenoid valve, in the compressor discharge line, opens. The liquid refrigerant leaves the TXV with the sudden pressure drop causing the liquid to expand to a vapor and absorbing the heat from the supply air going through the evaporator coil. The refrigerant vapor then travels to the compressor where it is elevated to a higher pressure and temperature. The refrigerant next carries the heat to a parallel path between the outside condenser coil and a bypass circuit. Some of the heat is rejected outdoors. The ratio of heat rejected outdoors versus indoors is controlled by an outdoor fan motor controller (OFMC) that monitors the two-phase temperature and varies the fan speed. This 2-phase refrigerant vapor is then sent to the reheat coil. As the refrigerant travels through the reheat coil it condenses into a subcooled liquid where the process repeats itself.

<u>R</u>	<u>AC</u>	<u>D</u>	<u>Y</u>	<u>B</u>	<u>090</u>	<u>A</u>	<u>C</u>	<u>F</u>	<u>15</u>	<u>2</u>	<u>A</u>	<u>A</u>	<u>***</u>		
1	23	4	5	6	789	10	11	12	13 14	15	16	17	18	19	20

1—Brand

R = Friedrich®

2, 3—Unit Type

AC = Packaged AC

4—Cabinet Type

D = Medium Commercial

5—Refrigerant

Y = R-454B

6—Efficiency Level

B = Standard Efficiency

7, 8, 9—Capacity

090 = 7.5 ton

102 = 8.5 ton

120 = 10 ton

150 = 12.5 ton

10—Major series

A = 1st Design

11—Voltage

C = 3 PH, 208-230V, 60 Hz

D = 3 PH, 460V, 60 Hz

Y = 3 PH, 575V, 60 Hz

12—Drive

F = Belt Drive – VFD Low

G = Belt Drive – VFD Medium

H = Belt Drive – VFD High

13, 14—Heat Capacity

00 = No Heat

10 = 10 kW

15 = 15 kW

20 = 20 kW

30 = 30 kW

40 = 40 kW

15—Number of stages

0 = No stages

1 = 1 stage

2 = 2 stage

16—Control

A = Core Command

B = Core Command &
Comfort Alert

C = ClearControl

D = ClearControl &
Comfort Alert

17—Minor series

A = 1st Design

18, 19, 20—Option Code

See next page

FACTORY INSTALLED OPTION CODES FOR RACD (7.5 TO 12.5 TON)

18					19			20			
LV = Louver protection					LF = Low Ambient / Freeze Stat			EC = Economizer			
RH ¹ = HumidiDry/HGRH (Hot Gas Reheat)					NP = Non-powered Convenience Outlet			SS = Supply Smoke			
								RS = Return Smoke			
HA = Hinged Access											
CC = Coil Coating											
Option code character highlighted below											
A	None				A	None		0	None		
B	LV				B	LF		1	EC		
C	HA				C	NP		2	RS		
D	LV	HA			D	LF	NP	3	EC	RS	
E	LV	CC						4	SS	RS	
F	LV	HA	CC					5	EC	SS	RS
N	RH										
P	LV	RH									
Q	RH	HA									
R	LV	RH	CC								
S	LV	RH	HA								
T	LV	RH	HA	CC							

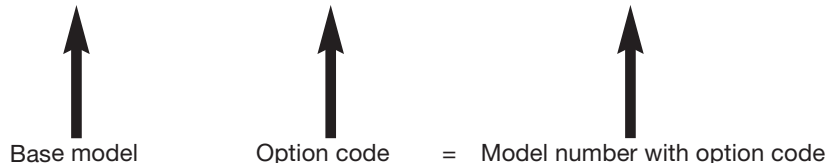
¹Only available with ClearControl.

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, "AAO" follows the model number.

- **Step 1:** In the table above, based on the desired features, choose option code character from highlighted options on the left side under the number 18. For example, the option code character "E" has Louver protection and Coil Coating.
- **Step 2:** In the table above, based on the desired features, choose option code character from highlighted options on the left side under the number 19. For example, the option code character "D" has Low Ambient / Freeze Stat and Non-powered convenience outlet.
- **Step 3:** In the table above, based on the desired features, choose option code character from highlighted options on the left side under the number 20. For example, the option code character "3" has Economizer and Return Smoke.
- The resulting option code from examples above is: "ED3"
- **Step 4:** Add your option code selection to the end of model number

◦ Example: RACDYB090ACF150AA ED3 = RACDYB090ACF150AAED3



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

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

Example:

Voltage—	230 V – 3 Phase – 60 Hz
Total Cooling Capacity—	118,000 Btu/h [34.57 kW]
Sensible Cooling Capacity—	79,600 Btu/h [23.32 kW]
Heating Capacity—	150,000 Btu/h [40 kW]
*Condenser Entering Air—	95°F [35.0°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—	0.40 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] WB and 67°F [19.4°C] to determine total and sensible capacity and power input for 65°F [18.3°C] WB evaporator inlet air at 3750 CFM [1770 L/s] indoor air flow (table basis):

Total Cooling Capacity = 118,900 Btu/h [34.82 kW]
Sensible Cooling Capacity = 99,950 Btu/h [29.27 kW]
Power Input (Compressor and Cond. Fans) = 8,950 watts

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

$99,950 + (1.10 \times 3,600 \times (1 - 0.03) \times (78 - 80))$
Sensible Cooling Capacity = 92,268 Btu/h [27.02 kW]

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

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

Total Capacity = $118,900 \times 0.98 = 116,522$ Btu/h [34.12 kW]
Sensible Capacity = $92,268 \times 0.95 = 87,655$ Btu/h [25.67 kW]
Power Input = $8,950 \times 0.99 = 8,861$ Watts

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

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

Enter Indoor Blower performance table at 3600 CFM [1699 L/s]. Total ESP (external static pressure) per the spec of 0.40 in. WG [.10 kPa] includes the system duct and grilles. Add from the table "Component Air Resistance," 0.076 in. WG [.02 kPa] for wet coil, 0 in. WG [.00 kPa] for downflow air flow for a total selection static pressure of 0.476 (0.5) in. WG [.12 kPa], and determine:

RPM = 771
WATTS = 1,494
DRIVE = F (Belt Drive, VFD Low Static)

5. CALCULATE INDOOR BLOWER Btu/h HEAT EFFECT FROM MOTOR WATTS, STEP 4.

$$1,576 \times 3.412 = 5,377 \text{ Btu/h [1.57 kW]}$$

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

$$\text{Net Total Capacity} = 116,522 - 5,377 = 111,145 \text{ Btu/h [32.54 kW]}$$

$$\text{Net Sensible Capacity} = 87,655 - 5,377 = 82,278 \text{ Btu/h [24.09 kW]}$$

7. CALCULATE UNIT INPUT AND JOB EER.

$$\text{Total Power Input} = 8,861 \text{ (step 3)} + 1,576 \text{ (step 4)} = 10,437 \text{ Watts}$$

$$\text{EER} = \frac{\text{Net Total Btu/h [kW] (step 6)}}{\text{Power Input, Watts (above)}} = \frac{111,145}{10,437} = 10.65$$

8. SELECT UNIT HEATING CAPACITY.

From Heater Kit Table select kW to meet heating capacity requirement; multiply kW x 3412 to convert to Btu/h.

Use 40 kW Heater Kit

Heater Kit Model:	Heater Kit Capacity:
RXJJ-DD40CP	135,120 Btu/h [39.6 kW]

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

$$135,120 + 5,377 = 140,497 \text{ Btu/h [41.1 kW]}$$

9. CHOOSE MODEL RACDYB120ACF402AA.

*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

NOM. SIZES 7.5-12.5 TONS [26.4-44.0 kW] ASHRAE 90.1-2022 COMPLIANT MODELS

Model RACDYB Series	090	102	120	150
Cooling Performance^A				
Gross Cooling Capacity Btu/h [kW]	88,000 [25.78]	99,000 [29.01]	118,000 [34.57]	148,000 [43.36]
EER	11.2	11.2	11.2	11.0
IEER ^B	14.8	14.8	14.8	14.2
Nominal CFM/AHRI Rated CFM [L/s]	3000/3400 [1416/1605]	3400/3300 [1604/1557]	4000/4000 [1888/1888]	5000/4025 [2360/1899]
AHRI Net Cooling Capacity Btu/h [kW]	85,000 [24.9]	96,000 [28.13]	114,000 [33.4]	142,000 [41.61]
Net Sensible Capacity Btu/h [kW]	63,750 [18.68]	72,000 [21.10]	85,500 [25.06]	106,500 [31.21]
Net Latent Capacity Btu/h [kW]	21,250 [6.23]	24,000 [7.03]	28,500 [8.35]	35,500 [10.40]
Net System Power kW	7.73	8.73	10.36	13.15
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	2/Tandem Scroll
No. Stages	2	2	2	2
Outdoor Sound Rating (dB)^C				
	83	81	88	87
Outdoor Coil - Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	0.71 [18]	0.81 [20.6]	1 [25.4]	1 [25.4]
Rows / FPI [FPcm]	25.4 [2.36]	25.6 [2.38]	31.5 [2.93]	31.5 [2.93]
	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	1 [25.4]	1.26 [32]	1 [25.4]	1 [25.4]
Rows / FPI [FPcm]	11 [1.02]	10.9 [1.01]	13.8 [1.28]	13.8 [1.28]
	1 / 20 [8]	1 / 20 [8]	2 / 18 [7]	2 / 18 [7]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type				
No. Used/Diameter in. [mm]	Propeller	Propeller	Propeller	Propeller
Drive Type/No. Speeds	2/24 [609.6]	2/24 [609.6]	2/24 [609.6]	2/24 [609.6]
CFM [L/s]	Direct/1	Direct/1	Direct/1	Direct/1
No. Motors/HP	8000 [3775]	8000 [3775]	8500 [4011]	9000 [4247]
Motor RPM	2 at 1/5 HP	2 at 1/5 HP	2 at 1/3 HP	2 at 3/4 HP
	820	820	1075	1100
Indoor Fan - Type				
No. Used/Diameter in. [mm]	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Drive Type	1/15x15 [381x381]	1/15x15 [381x381]	1/15x15 [381x381]	1/15x15 [381x381]
No. Speeds	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)
No. Motors	2	2	2	2
Motor RPM	1	1	1	1
Motor Frame Size	1725	1725	1725	1725
	56	56	56	184
Filter - Type				
Furnished	Disposable	Disposable	Disposable	Disposable
(NO.) Size Recommended in. [mm x mm x mm]	Yes	Yes	Yes	Yes
	(4)2x20x20 [51x508x508]	(4)2x20x20 [51x508x508]	(4)2x20x20 [51x508x508]	(4)2x20x25 [51x508x635]
Refrigerant Charge Oz. [g]				
	88 [2495]	114 [3232]	171 [4848]	168 [4763]
Weights				
Net Weight lbs. [kg]	767 [348]	803 [365]	897 [407]	987 [448]
Ship Weight lbs. [kg]	806 [366]	842 [382]	936 [425]	1026 [466]

See Page 17 for Notes.

[] Designates Metric Conversions

NOTES:

- A. 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 340/360.
- B. EER is rated at AHRI conditions and in accordance with DOE test procedures. Integrated Energy Efficiency Ratio (IEER) is rated in accordance with AHRI Standard 340/360.
- C. Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

[] Designates Metric Conversions

COOLING PERFORMANCE DATA—RACDYB090

ENTERING INDOOR AIR @ 80°F [26.7°C] dbE ①										
wbE		71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]		
CFM [L/s]		3550 [1675]	3400 [1605]	2375 [1121]	3550 [1675]	3400 [1605]	2375 [1121]	3550 [1675]	3400 [1605]	2375 [1121]
DR ①		.05	.09	.12	.05	.09	.12	.05	.09	.12
OUTDOOR DRY BULB TEMPERATURE °F [°C]	75 [23.9]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	105.0 [30.8] 60.0 [17.6] 6.4	104.1 [30.5] 58.8 [17.2] 6.4	98.4 [28.8] 50.5 [14.8] 6.2	99.4 [29.1] 70.9 [20.8] 6.4	98.6 [28.9] 69.4 [20.3] 6.4	93.2 [27.3] 59.7 [17.5] 6.2	93.8 [27.5] 81.7 [23.9] 6.4	87.9 [25.8] 68.8 [20.2] 6.2
	80 [26.7]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	102.5 [30.0] 59.0 [17.3] 6.7	101.7 [29.8] 57.8 [16.9] 6.7	96.1 [28.2] 49.7 [14.6] 6.5	96.9 [28.4] 69.9 [20.5] 6.7	96.1 [28.2] 68.5 [20.1] 6.6	90.9 [26.6] 58.8 [17.2] 6.5	91.3 [26.8] 80.7 [23.7] 6.6	85.6 [25.1] 68.0 [19.9] 6.4
	85 [29.4]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	100.0 [29.3] 58.0 [17.0] 7.0	99.2 [29.1] 56.8 [16.6] 7.0	93.8 [27.5] 48.8 [14.3] 6.8	94.4 [27.7] 68.9 [20.2] 7.0	93.7 [27.5] 67.5 [19.8] 6.9	88.6 [26.0] 58.0 [17.0] 6.7	88.8 [26.0] 79.8 [23.4] 6.9	83.3 [24.4] 67.2 [19.7] 6.7
	90 [32.2]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	97.6 [28.6] 57.0 [16.7] 7.3	96.8 [28.4] 55.9 [16.4] 7.3	91.5 [26.8] 48.0 [14.1] 7.1	92.0 [27.0] 67.9 [19.9] 7.3	91.3 [26.8] 66.5 [19.5] 7.2	86.2 [25.3] 57.2 [16.8] 7.1	86.4 [25.3] 78.8 [23.1] 7.2	81.0 [23.7] 66.3 [19.4] 7.0
	95 [35]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	95.1 [27.9] 56.0 [16.4] 7.6	94.4 [27.7] 54.9 [16.1] 7.6	89.2 [26.1] 47.2 [13.8] 7.4	89.5 [26.2] 66.9 [19.6] 7.6	88.8 [26.0] 65.6 [19.2] 7.6	83.9 [24.6] 56.3 [16.5] 7.4	83.9 [24.6] 77.8 [22.8] 7.6	78.7 [23.1] 65.5 [19.2] 7.3
	100 [37.8]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	92.7 [27.2] 55.1 [16.1] 8.0	91.9 [26.9] 54.0 [15.8] 8.0	86.9 [25.5] 46.4 [13.6] 7.8	87.1 [25.5] 65.9 [19.3] 8.0	86.4 [25.3] 64.6 [18.9] 7.9	81.6 [23.9] 55.5 [16.3] 7.7	81.5 [23.9] 76.8 [22.5] 7.9	76.4 [22.4] 64.7 [19.0] 7.7
	105 [40.6]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	90.2 [26.4] 54.1 [15.9] 8.4	89.5 [26.2] 53.0 [15.5] 8.4	84.6 [24.8] 45.5 [13.3] 8.1	84.6 [24.8] 65.0 [19.1] 8.3	83.9 [24.6] 63.6 [18.6] 8.3	79.3 [23.2] 54.7 [16.0] 8.1	79.0 [23.2] 75.8 [22.2] 8.3	74.1 [21.7] 63.8 [18.7] 8.1
	110 [43.3]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	87.8 [25.7] 53.1 [15.6] 8.8	87.1 [25.5] 52.0 [15.2] 8.8	82.3 [24.1] 44.7 [13.1] 8.5	82.2 [24.1] 64.0 [18.8] 8.7	81.5 [23.9] 62.7 [18.4] 8.7	77.0 [22.6] 53.9 [15.8] 8.5	76.6 [22.5] 74.8 [21.9] 8.7	71.8 [21.0] 63.0 [18.5] 8.4
	115 [46.1]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	85.3 [25.0] 52.1 [15.3] 9.2	84.6 [24.8] 51.1 [15.0] 9.2	80.0 [23.4] 43.9 [12.9] 8.9	79.7 [23.4] 63.0 [18.5] 9.2	79.1 [23.2] 61.7 [18.1] 9.1	74.7 [21.9] 53.0 [15.5] 8.9	74.1 [21.7] 73.9 [21.7] 9.1	69.5 [20.4] 62.2 [18.2] 8.9
	120 [48.9]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	82.8 [24.3] 51.1 [15.0] 9.7	82.2 [24.1] 50.1 [14.7] 9.6	77.7 [22.8] 43.1 [12.6] 9.4	77.2 [22.6] 62.0 [18.2] 9.6	76.6 [22.5] 60.8 [17.8] 9.6	72.4 [21.2] 52.2 [15.3] 9.3	71.6 [21.0] 71.6 [21.0] 9.6	67.2 [19.7] 61.4 [18.0] 9.3
	125 [51.7]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	80.4 [23.6] 50.1 [14.7] 10.1	79.7 [23.4] 49.1 [14.4] 10.1	75.4 [22.1] 42.2 [12.4] 9.8	74.8 [21.9] 61.0 [17.9] 10.1	74.2 [21.7] 59.8 [17.5] 10.0	70.1 [20.5] 51.4 [15.1] 9.8	69.2 [20.3] 69.2 [20.3] 10.0	64.9 [19.0] 60.5 [17.7] 9.7

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

Total —Total capacity x 1000 Btu/h
Sens —Sensible capacity x 1000 Btu/h
Power—kW input

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

[] Designates Metric Conversions

COOLING PERFORMANCE DATA—RACDYB102

ENTERING INDOOR AIR @ 80°F [26.7°C] dbE ①											
wbE		71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]			
CFM [L/s]		3900 [1841]	3300 [1557]	2600 [1227]	3900 [1841]	3300 [1557]	2600 [1227]	3900 [1841]	3300 [1557]	2600 [1227]	
DR ①		.05	.09	.12	.05	.09	.12	.05	.09	.12	
OUTDOOR DRY BULB TEMPERATURE °F [°C]	75 [23.9]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	119.4 [35.0] 69.7 [20.4] 7.3	115.6 [33.9] 64.3 [18.8] 7.2	111.1 [32.6] 57.9 [17.0] 7.1	112.3 [32.9] 83.0 [24.3] 7.3	108.7 [31.9] 76.5 [22.4] 7.2	104.6 [30.7] 68.9 [20.2] 7.1	106.0 [31.1] 95.9 [28.1] 7.2	102.6 [30.1] 88.4 [25.9] 7.1	98.6 [28.9] 79.7 [23.4] 6.9
	80 [26.7]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	116.8 [34.2] 68.4 [20.0] 7.7	113.0 [33.1] 63.0 [18.5] 7.6	108.7 [31.9] 56.8 [16.6] 7.5	109.7 [32.2] 81.6 [23.9] 7.7	106.2 [31.1] 75.3 [22.1] 7.6	102.1 [29.9] 67.8 [19.9] 7.4	103.3 [30.3] 94.6 [27.7] 7.5	100.0 [29.3] 87.2 [25.6] 7.4	96.2 [28.2] 78.5 [23] 7.3
	85 [29.4]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	114.0 [33.4] 66.9 [19.6] 8.1	110.3 [32.3] 61.7 [18.1] 8.0	106.1 [31.1] 55.6 [16.3] 7.8	106.9 [31.3] 80.2 [23.5] 8.1	103.5 [30.3] 73.9 [21.7] 7.9	99.5 [29.2] 66.6 [19.5] 7.8	100.5 [29.5] 93.1 [27.3] 7.9	97.3 [28.5] 85.8 [25.1] 7.8	93.6 [27.4] 77.3 [22.7] 7.7
	90 [32.2]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	111.0 [32.5] 65.4 [19.2] 8.5	107.5 [31.5] 60.3 [17.7] 8.3	103.3 [30.3] 54.3 [15.9] 8.2	103.9 [30.5] 78.6 [23.0] 8.4	100.6 [29.5] 72.5 [21.2] 8.3	96.7 [28.3] 65.3 [19.1] 8.1	97.6 [28.6] 91.6 [26.8] 8.3	94.5 [27.7] 84.4 [24.7] 8.2	90.8 [26.6] 76.1 [22.3] 8.0
	95 [35]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	107.9 [31.6] 63.7 [18.7] 8.9	104.5 [30.6] 58.7 [17.2] 8.7	100.4 [29.4] 52.9 [15.5] 8.6	100.8 [29.5] 77.0 [22.6] 8.8	97.6 [28.6] 71.0 [20.8] 8.7	93.8 [27.5] 63.9 [18.7] 8.5	94.5 [27.7] 89.9 [26.3] 8.7	91.4 [26.8] 82.9 [24.3] 8.5	87.9 [25.8] 74.7 [21.9] 8.4
	100 [37.8]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	104.6 [30.7] 62.0 [18.2] 9.2	101.3 [29.7] 57.1 [16.7] 9.1	97.4 [28.5] 51.5 [15.1] 8.9	97.6 [28.6] 75.2 [22.0] 9.2	94.4 [27.7] 69.4 [20.3] 9.0	90.8 [26.6] 62.5 [18.3] 8.9	91.2 [26.7] 88.2 [25.8] 9.1	88.3 [25.9] 81.3 [23.8] 8.9	84.9 [24.9] 73.2 [21.5] 8.7
	105 [40.6]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	101.2 [29.7] 60.1 [17.6] 9.6	98.0 [28.7] 55.4 [16.2] 9.5	94.2 [27.6] 49.9 [14.6] 9.3	94.1 [27.6] 73.4 [21.5] 9.6	91.1 [26.7] 67.6 [19.8] 9.4	87.6 [25.7] 60.9 [17.8] 9.2	87.8 [25.7] 86.3 [25.3] 9.4	85.0 [24.9] 79.5 [23.3] 9.3	81.7 [23.9] 71.7 [21.0] 9.1
	110 [43.3]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	97.6 [28.6] 58.1 [17.0] 10.0	94.5 [27.7] 53.6 [15.7] 9.8	90.9 [26.6] 48.3 [14.2] 9.6	90.6 [26.6] 71.4 [20.9] 9.9	87.7 [25.7] 65.8 [19.3] 9.8	84.3 [24.7] 59.3 [17.4] 9.6	84.2 [24.7] 84.2 [24.7] 9.8	81.5 [23.9] 77.7 [22.8] 9.7	78.4 [23.0] 70.0 [20.5] 9.5
	115 [46.1]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	93.9 [27.5] 56.1 [16.4] 10.4	90.9 [26.6] 51.7 [15.2] 10.2	87.4 [25.6] 46.6 [13.7] 10.0	86.8 [25.4] 69.3 [20.3] 10.3	84.1 [24.6] 63.9 [18.7] 10.2	80.8 [23.7] 57.6 [16.9] 10.0	80.5 [23.6] 80.5 [23.6] 10.2	77.9 [22.8] 75.8 [22.2] 10.0	74.9 [22.0] 68.3 [20.0] 9.8
	120 [48.9]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	90.0 [26.4] 53.9 [15.8] 10.7	87.2 [25.6] 49.7 [14.6] 10.6	83.8 [24.6] 44.8 [13.1] 10.4	83.0 [24.3] 67.2 [19.7] 10.7	80.3 [23.5] 61.9 [18.1] 10.5	77.2 [22.6] 55.8 [16.4] 10.3	76.6 [22.5] 76.6 [22.5] 10.6	74.1 [21.7] 73.8 [21.6] 10.4	71.3 [20.9] 66.5 [19.5] 10.2
	125 [51.7]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	86.0 [25.2] 51.6 [15.1] 11.1	83.2 [24.4] 47.6 [14.0] 10.9	80.0 [23.4] 42.9 [12.6] 10.7	78.9 [23.1] 64.9 [19.0] 11.1	76.4 [22.4] 59.8 [17.5] 10.9	73.4 [21.5] 53.9 [15.8] 10.7	72.6 [21.3] 72.6 [21.3] 10.9	70.2 [20.6] 70.2 [20.6] 10.8	67.5 [19.8] 64.6 [18.9] 10.6

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

Total —Total capacity x 1000 Btu/h
Sens —Sensible capacity x 1000 Btu/h
Power —kW input

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

[] Designates Metric Conversions

COOLING PERFORMANCE DATA—RACDYB120

ENTERING INDOOR AIR @ 80°F [26.7°C] dbE ①											
wbE		71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]			
CFM [L/s]		4925 [2324]	4000 [1888]	3275 [1546]	4925 [2324]	4000 [1888]	3275 [1546]	4925 [2324]	4000 [1888]	3275 [1546]	
DR ①		.05	.09	.12	.05	.09	.12	.05	.09	.12	
OUTDOOR DRY BULB TEMPERATURE °F [°C]	75 [23.9]	Total kBtu/h [kW]	151.0 [44.3]	144.9 [42.5]	140.1 [41.1]	141.7 [41.5]	136.0 [39.9]	131.5 [38.5]	134.0 [39.3]	128.5 [37.7]	124.3 [36.4]
		Sens kBtu/h [kW]	89.7 [26.3]	80.9 [23.7]	74.1 [21.7]	109.5 [32.1]	98.8 [29]	90.4 [26.5]	130.8 [38.3]	118.1 [34.6]	108.1 [31.7]
		Power	9.3	9.1	9.0	9.2	9.0	8.9	9.1	8.9	8.7
	80 [26.7]	Total kBtu/h [kW]	147.9 [43.3]	141.9 [41.6]	137.3 [40.2]	138.6 [40.6]	133.0 [39.0]	128.6 [37.7]	130.9 [38.4]	125.6 [36.8]	121.4 [35.6]
		Sens kBtu/h [kW]	88.4 [25.9]	79.8 [23.4]	73.0 [21.4]	108.2 [31.7]	97.6 [28.6]	89.4 [26.2]	129.5 [38.0]	116.9 [34.3]	107.0 [31.4]
		Power	9.7	9.5	9.3	9.6	9.4	9.2	9.5	9.3	9.1
	85 [29.4]	Total kBtu/h [kW]	144.6 [42.4]	138.8 [40.7]	134.2 [39.3]	135.3 [39.7]	129.8 [38.0]	125.6 [36.8]	127.6 [37.4]	122.4 [35.9]	118.4 [34.7]
		Sens kBtu/h [kW]	86.9 [25.5]	78.5 [23.0]	71.8 [21.0]	106.7 [31.3]	96.3 [28.2]	88.2 [25.8]	127.6 [37.4]	115.6 [33.9]	105.8 [31.0]
		Power	10.1	9.9	9.7	10.0	9.8	9.6	9.8	9.6	9.5
	90 [32.2]	Total kBtu/h [kW]	141.1 [41.4]	135.4 [39.7]	130.9 [38.4]	131.8 [38.6]	126.5 [37.1]	122.3 [35.8]	124.1 [36.4]	119.1 [34.9]	115.1 [33.7]
		Sens kBtu/h [kW]	85.4 [25.0]	77.0 [22.6]	70.5 [20.7]	105.1 [30.8]	94.9 [27.8]	86.9 [25.5]	124.1 [36.4]	114.2 [33.5]	104.5 [30.6]
Power		10.4	10.2	10.1	10.4	10.1	10.0	10.2	10.0	9.8	
95 [35]	Total kBtu/h [kW]	137.4 [40.3]	131.8 [38.6]	127.5 [37.4]	128.1 [37.5]	122.9 [36.0]	118.8 [34.8]	120.3 [35.3]	115.5 [33.9]	111.7 [32.7]	
	Sens kBtu/h [kW]	83.6 [24.5]	75.5 [22.1]	69.1 [20.3]	103.4 [30.3]	93.3 [27.3]	85.4 [25.0]	120.3 [35.3]	112.6 [33.0]	103.1 [30.2]	
	Power	10.8	10.6	10.4	10.7	10.5	10.3	10.6	10.4	10.2	
100 [37.8]	Total kBtu/h [kW]	133.4 [39.1]	128.1 [37.5]	123.8 [36.3]	124.1 [36.4]	119.1 [34.9]	115.2 [33.8]	116.4 [34.1]	111.7 [32.7]	108.0 [31.7]	
	Sens kBtu/h [kW]	81.7 [23.9]	73.8 [21.6]	67.5 [19.8]	101.5 [29.7]	91.6 [26.8]	83.9 [24.6]	116.4 [34.1]	110.9 [32.5]	101.5 [29.7]	
	Power	11.2	11.0	10.8	11.1	10.9	10.7	11.0	10.8	10.6	
105 [40.6]	Total kBtu/h [kW]	129.3 [37.9]	124.1 [36.4]	120.0 [35.2]	120.0 [35.2]	115.1 [33.7]	111.3 [32.6]	112.3 [32.9]	107.7 [31.6]	104.2 [30.5]	
	Sens kBtu/h [kW]	79.7 [23.4]	72.0 [21.1]	65.9 [19.3]	99.5 [29.2]	89.8 [26.3]	82.2 [24.1]	112.3 [32.9]	107.7 [31.6]	99.8 [29.2]	
	Power	11.6	11.3	11.2	11.5	11.3	11.1	11.3	11.1	10.9	
110 [43.3]	Total kBtu/h [kW]	124.9 [36.6]	119.9 [35.1]	115.9 [34.0]	115.6 [33.9]	111.0 [32.5]	107.3 [31.4]	107.9 [31.6]	103.5 [30.3]	100.1 [29.3]	
	Sens kBtu/h [kW]	77.6 [22.7]	70.0 [20.5]	64.1 [18.8]	97.3 [28.5]	87.9 [25.8]	80.4 [23.6]	107.9 [31.6]	103.5 [30.3]	98.1 [28.8]	
	Power	12.0	11.7	11.5	11.9	11.6	11.4	11.7	11.5	11.3	
115 [46.1]	Total kBtu/h [kW]	120.4 [35.3]	115.5 [33.9]	111.7 [32.7]	111.1 [32.6]	106.6 [31.2]	103.1 [30.2]	103.3 [30.3]	99.2 [29.1]	95.9 [28.1]	
	Sens kBtu/h [kW]	75.2 [22.0]	67.9 [19.9]	62.2 [18.2]	95.0 [27.8]	85.8 [25.1]	78.5 [23.0]	103.3 [30.3]	99.2 [29.1]	95.9 [28.1]	
	Power	12.3	12.1	11.9	12.2	12.0	11.8	12.1	11.9	11.7	
120 [48.9]	Total kBtu/h [kW]	115.6 [33.9]	110.9 [32.5]	107.3 [31.4]	106.3 [31.2]	102.0 [29.9]	98.6 [28.9]	98.5 [28.9]	94.6 [27.7]	91.5 [26.8]	
	Sens kBtu/h [kW]	72.8 [21.3]	65.7 [19.3]	60.1 [17.6]	92.6 [27.1]	83.5 [24.5]	76.5 [22.4]	98.5 [28.9]	94.6 [27.7]	91.5 [26.8]	
	Power	12.7	12.5	12.3	12.6	12.4	12.2	12.5	12.2	12.0	
125 [51.7]	Total kBtu/h [kW]	110.6 [32.4]	106.1 [31.1]	102.6 [30.1]	101.3 [29.7]	97.2 [28.5]	94.0 [27.5]	93.5 [27.4]	89.8 [26.3]	86.8 [25.4]	
	Sens kBtu/h [kW]	70.2 [20.6]	63.3 [18.6]	58.0 [17.0]	90.0 [26.4]	81.2 [23.8]	74.3 [21.8]	93.5 [27.4]	89.8 [26.3]	86.8 [25.4]	
	Power	13.1	12.8	12.6	13.0	12.7	12.5	12.9	12.6	12.4	

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

Total —Total capacity x 1000 Btu/h
Sens —Sensible capacity x 1000 Btu/h
Power—kW input

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

[] Designates Metric Conversions

COOLING PERFORMANCE DATA—RACDYB150

ENTERING INDOOR AIR @ 80°F [26.7°C] dbE ①											
wbE			71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]		
CFM [L/s]			6000 [2832]	4025 [1900]	4000 [1888]	6000 [2832]	4025 [1900]	4000 [1888]	6000 [2832]	4025 [1900]	4000 [1888]
DR ①			.05	.09	.12	.05	.09	.12	.05	.09	.12
OUTDOOR DRY BULB TEMPERATURE °F [°C]	75 [23.9]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	193.6 [56.7] 116.5 [34.1] 7.5	177.8 [52.1] 94.8 [27.8] 7.2	177.6 [52.1] 94.5 [27.7] 7.2	181.3 [53.1] 136.8 [40.1] 7.8	166.5 [48.8] 111.3 [32.6] 7.5	166.3 [48.7] 111.0 [32.5] 7.5	170.3 [49.9] 155.5 [45.6] 7.3	156.3 [45.8] 126.6 [37.1] 7.0	156.1 [45.8] 126.2 [37.0] 7.0
	80 [26.7]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	189.3 [55.5] 114.1 [33.4] 7.9	173.8 [50.9] 92.9 [27.2] 7.6	173.6 [50.9] 92.6 [27.1] 7.6	177.0 [51.9] 134.4 [39.4] 8.3	162.5 [47.6] 109.4 [32.1] 7.9	162.3 [47.6] 109.0 [31.9] 7.9	165.9 [48.6] 153.2 [44.9] 7.7	152.3 [44.6] 124.6 [36.5] 7.4	152.2 [44.6] 124.3 [36.4] 7.4
	85 [29.4]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	184.9 [54.2] 111.6 [32.7] 8.4	169.8 [49.8] 90.8 [26.6] 8.0	169.6 [49.7] 90.6 [26.6] 8.0	172.6 [50.6] 131.9 [38.7] 8.7	158.5 [46.5] 107.3 [31.4] 8.3	158.3 [46.4] 107.0 [31.4] 8.3	161.5 [47.3] 150.7 [44.2] 8.2	148.3 [43.5] 122.6 [35.9] 7.8	148.2 [43.4] 122.3 [35.8] 7.8
	90 [32.2]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	180.5 [52.9] 109.1 [32.0] 8.8	165.7 [48.6] 88.7 [26.0] 8.4	165.5 [48.5] 88.5 [25.9] 8.4	168.1 [49.3] 129.3 [37.9] 9.1	154.4 [45.3] 105.2 [30.8] 8.8	154.2 [45.2] 104.9 [30.7] 8.8	157.1 [46.0] 148.1 [43.4] 8.6	144.2 [42.3] 120.5 [35.3] 8.2	144.1 [42.2] 120.2 [35.2] 8.2
	95 [35]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	175.9 [51.6] 106.4 [31.2] 9.2	161.5 [47.3] 86.6 [25.4] 8.8	161.4 [47.3] 86.3 [25.3] 8.8	163.6 [47.9] 126.6 [37.1] 9.6	150.2 [44.0] 103.0 [30.2] 9.2	150.0 [44.0] 102.8 [30.1] 9.2	152.6 [44.7] 145.4 [42.6] 9.0	140.1 [41.1] 118.3 [34.7] 8.7	139.9 [41.0] 118.0 [34.6] 8.7
	100 [37.8]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	171.3 [50.2] 103.6 [30.4] 9.7	157.3 [46.1] 84.3 [24.7] 9.3	157.1 [46.0] 84.0 [24.6] 9.3	159.0 [46.6] 123.8 [36.3] 10.0	146.0 [42.8] 100.8 [29.5] 9.6	145.8 [42.7] 100.5 [29.5] 9.6	148.0 [43.4] 142.6 [41.8] 9.5	135.8 [39.8] 116.0 [34.0] 9.1	135.7 [39.8] 115.7 [33.9] 9.1
	105 [40.6]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	166.7 [48.9] 100.7 [29.5] 10.1	153.0 [44.8] 81.9 [24.0] 9.7	152.9 [44.8] 81.7 [23.9] 9.7	154.4 [45.3] 120.9 [35.4] 10.4	141.7 [41.5] 98.4 [28.8] 10.0	141.6 [41.5] 98.1 [28.8] 10.0	143.3 [42.0] 139.7 [40.9] 9.9	131.6 [38.6] 113.7 [33.3] 9.5	131.4 [38.5] 113.3 [33.2] 9.5
	110 [43.3]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	161.9 [47.5] 97.6 [28.6] 10.5	148.7 [43.6] 79.4 [23.3] 10.1	148.5 [43.5] 79.2 [23.2] 10.1	149.6 [43.8] 117.9 [34.6] 10.9	137.4 [40.3] 95.9 [28.1] 10.4	137.2 [40.2] 95.7 [28.0] 10.4	138.6 [40.6] 136.7 [40.1] 10.3	127.2 [37.3] 111.2 [32.6] 9.9	127.1 [37.3] 110.9 [32.5] 9.9
	115 [46.1]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	157.1 [46.0] 94.5 [27.7] 11.0	144.3 [42.3] 76.9 [22.5] 10.5	144.1 [42.2] 76.7 [22.5] 10.5	144.8 [42.4] 114.8 [33.6] 11.3	132.9 [39.0] 93.4 [27.4] 10.8	132.8 [38.9] 93.1 [27.3] 10.8	133.8 [39.2] 133.5 [39.1] 10.8	122.8 [36.0] 108.7 [31.9] 10.3	122.7 [36.0] 108.3 [31.7] 10.3
	120 [48.9]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	152.3 [44.6] 91.2 [26.7] 11.4	139.8 [41.0] 74.2 [21.7] 10.9	139.6 [40.9] 74.0 [21.7] 10.9	139.9 [41.0] 111.5 [32.7] 11.7	128.5 [37.7] 90.7 [26.6] 11.3	128.3 [37.6] 90.5 [26.5] 11.2	128.9 [37.8] 128.9 [37.8] 11.2	118.3 [34.7] 106.0 [31.1] 10.7	118.2 [34.6] 105.7 [31.0] 10.7
	125 [51.7]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	147.3 [43.2] 87.9 [25.8] 11.8	135.2 [39.6] 71.5 [21.0] 11.3	135.1 [39.6] 71.3 [20.9] 11.3	135.0 [39.6] 108.2 [31.7] 12.2	123.9 [36.3] 88.0 [25.8] 11.7	123.8 [36.3] 87.7 [25.7] 11.7	123.9 [36.3] 123.9 [36.3] 11.6	113.8 [33.4] 103.3 [30.3] 11.2	113.7 [33.3] 103.0 [30.2] 11.2

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

Total —Total capacity x 1000 Btu/h
Sens —Sensible capacity x 1000 Btu/h
Power —kW input

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

[] Designates Metric Conversions

GROSS SYSTEMS PERFORMANCE DATA (LOW HUMIDIDRY MODE)—RACDYB090

ENTERING INDOOR AIR @ 75°F [23.9°C] dbE ①											
wbE			65.3°F [18.5°C]			64°F [17.8°C]			62.5°F [16.9°C]		
CFM [L/s]			2190 [1034]	1825 [861]	1460 [689]	2190 [1034]	1825 [861]	1460 [689]	2190 [1034]	1825 [861]	1460 [689]
OUTDOOR DRY BULB TEMPERATURE °F [°C]	60 [15.6]	Total kBtu/h [kW]	28.8 [8.4]	27.8 [8.1]	26.8 [7.8]	25.4 [7.4]	24.5 [7.2]	23.6 [6.9]	24.6 [7.2]	23.8 [7.0]	22.9 [6.7]
		Sens kBtu/h [kW]	3.2 [0.9]	2.9 [0.8]	2.6 [0.8]	3.8 [1.1]	3.5 [1.0]	3.1 [0.9]	7.3 [2.1]	6.7 [2.0]	6.1 [1.8]
		Power [kW]	4.5	4.4	4.4	4.5	4.4	4.4	4.5	4.4	4.4
	65 [18.3]	Total kBtu/h [kW]	28.6 [8.4]	27.6 [8.1]	26.6 [7.8]	25.2 [7.4]	24.3 [7.1]	23.4 [6.9]	24.4 [7.2]	23.6 [6.9]	22.7 [6.7]
		Sens kBtu/h [kW]	3.1 [0.9]	2.9 [0.8]	2.6 [0.8]	3.8 [1.1]	3.4 [1.0]	3.1 [0.9]	7.3 [2.1]	6.7 [2.0]	6.1 [1.8]
		Power [kW]	4.5	4.4	4.4	4.5	4.5	4.4	4.5	4.4	4.4
	70 [21.1]	Total kBtu/h [kW]	28.3 [8.3]	27.3 [8.0]	26.3 [7.7]	24.8 [7.3]	24.0 [7.0]	23.1 [6.8]	24.1 [7.1]	23.3 [6.8]	22.4 [6.6]
		Sens kBtu/h [kW]	3.0 [0.9]	2.7 [0.8]	2.5 [0.7]	3.6 [1.1]	3.3 [1.0]	3.0 [0.9]	7.1 [2.1]	6.5 [1.9]	5.9 [1.7]
		Power [kW]	4.5	4.5	4.4	4.6	4.5	4.4	4.5	4.5	4.4
	75 [23.9]	Total kBtu/h [kW]	27.8 [8.2]	26.8 [7.9]	25.9 [7.6]	24.4 [7.1]	23.5 [6.9]	22.7 [6.6]	23.6 [6.9]	22.8 [6.7]	22.0 [6.4]
		Sens kBtu/h [kW]	2.7 [0.8]	2.4 [0.7]	2.2 [0.6]	3.3 [1.0]	3.0 [0.9]	2.7 [0.8]	6.9 [2.0]	6.3 [1.8]	5.7 [1.7]
		Power [kW]	4.6	4.5	4.4	4.6	4.5	4.4	4.6	4.5	4.4
80 [26.7]	Total kBtu/h [kW]	27.2 [8.0]	26.3 [7.7]	25.3 [7.4]	23.8 [7.0]	23.0 [6.7]	22.1 [6.5]	23.1 [6.8]	22.3 [6.5]	21.4 [6.3]	
	Sens kBtu/h [kW]	2.3 [0.7]	2.1 [0.6]	1.9 [0.5]	2.9 [0.8]	2.6 [0.8]	2.4 [0.7]	6.4 [1.9]	5.9 [1.7]	5.3 [1.6]	
	Power [kW]	4.6	4.5	4.4	4.6	4.5	4.5	4.6	4.5	4.4	
85 [29.4]	Total kBtu/h [kW]	26.5 [7.8]	25.6 [7.5]	24.6 [7.2]	23.1 [6.8]	22.3 [6.5]	21.5 [6.3]	22.3 [6.5]	21.6 [6.3]	20.8 [6.1]	
	Sens kBtu/h [kW]	1.7 [0.5]	1.6 [0.5]	1.4 [0.4]	2.3 [0.7]	2.1 [0.6]	1.9 [0.6]	5.9 [1.7]	5.4 [1.6]	4.9 [1.4]	
	Power [kW]	4.6	4.6	4.5	4.7	4.6	4.5	4.6	4.6	4.5	
90 [32.2]	Total kBtu/h [kW]	25.7 [7.5]	24.8 [7.3]	23.9 [7.0]	22.2 [6.5]	21.5 [6.3]	20.7 [6.1]	21.5 [6.3]	20.7 [6.1]	20.0 [5.9]	
	Sens kBtu/h [kW]	1.0 [0.3]	0.9 [0.3]	0.8 [0.2]	1.6 [0.5]	1.5 [0.4]	1.4 [0.4]	5.2 [1.5]	4.8 [1.4]	4.3 [1.3]	
	Power [kW]	4.7	4.6	4.5	4.7	4.6	4.5	4.7	4.6	4.5	

GROSS SYSTEMS PERFORMANCE DATA (HIGH HUMIDIDRY MODE)—RACDYB090

ENTERING INDOOR AIR @ 75°F [23.9°C] dbE ①											
wbE			65.3°F [18.5°C]			64°F [17.8°C]			62.5°F [16.9°C]		
CFM [L/s]			3600 [1699]	3150 [1487]	2400 [1133]	3600 [1699]	3150 [1487]	2400 [1133]	3600 [1699]	3150 [1487]	2400 [1133]
OUTDOOR DRY BULB TEMPERATURE °F [°C]	60 [15.6]	Total kBtu/h [kW]	48.5 [14.2]	47.3 [13.9]	45.3 [13.3]	32.0 [9.4]	31.2 [9.1]	29.9 [8.8]	31.1 [9.1]	30.3 [8.9]	29.0 [8.5]
		Sens kBtu/h [kW]	4.1 [1.2]	3.8 [1.1]	3.4 [1.0]	1.9 [0.5]	1.8 [0.5]	1.6 [0.5]	7.6 [2.2]	7.2 [2.1]	6.4 [1.9]
		Power	7.0	6.9	6.7	6.9	6.8	6.7	7.0	6.9	6.7
	70 [21.1]	Total kBtu/h [kW]	50.8 [14.9]	49.6 [14.5]	47.4 [13.9]	34.3 [10.1]	33.5 [9.8]	32.0 [9.4]	33.4 [9.8]	32.5 [9.5]	31.1 [9.1]
		Sens kBtu/h [kW]	6.9 [2.0]	6.5 [1.9]	5.7 [1.7]	4.6 [1.4]	4.4 [1.3]	3.9 [1.1]	10.4 [3.1]	9.8 [2.9]	8.7 [2.5]
		Power	6.9	6.8	6.6	6.8	6.7	6.6	6.9	6.8	6.6
	80 [26.7]	Total kBtu/h [kW]	51.6 [15.1]	50.3 [14.7]	48.1 [14.1]	35.1 [10.3]	34.2 [10.0]	32.7 [9.6]	34.1 [10.0]	33.3 [9.8]	31.8 [9.3]
Sens kBtu/h [kW]		8.0 [2.4]	7.5 [2.2]	6.7 [2.0]	5.8 [1.7]	5.4 [1.6]	4.8 [1.4]	11.6 [3.4]	10.9 [3.2]	9.7 [2.8]	
Power		6.9	6.8	6.7	6.8	6.8	6.6	6.9	6.8	6.7	
90 [32.2]	Total kBtu/h [kW]	50.8 [14.9]	49.6 [14.5]	47.4 [13.9]	34.3 [10.1]	33.5 [9.8]	32.0 [9.4]	33.4 [9.8]	32.5 [9.5]	31.1 [9.1]	
	Sens kBtu/h [kW]	7.6 [2.2]	7.1 [2.1]	6.3 [1.8]	5.3 [1.6]	5.0 [1.5]	4.4 [1.3]	11.1 [3.3]	10.4 [3.1]	9.3 [2.7]	
	Power	7.0	6.9	6.8	7.0	6.9	6.7	7.0	6.9	6.8	
100 [37.8]	Total kBtu/h [kW]	48.5 [14.2]	47.3 [13.9]	45.3 [13.3]	32.0 [9.4]	31.2 [9.1]	29.9 [8.7]	31.1 [9.1]	30.3 [8.9]	29.0 [8.5]	
	Sens kBtu/h [kW]	5.5 [1.6]	5.1 [1.5]	4.6 [1.3]	3.2 [0.9]	3.0 [0.9]	2.7 [0.8]	9.0 [2.6]	8.5 [2.5]	7.5 [2.2]	
	Power	7.2	7.1	7.0	7.2	7.1	6.9	7.2	7.1	7	
110 [43.3]	Total kBtu/h [kW]	44.7 [13.1]	43.6 [12.8]	41.7 [12.2]	28.2 [8.3]	27.5 [8.0]	26.3 [7.7]	27.2 [8.0]	26.5 [7.8]	25.4 [7.4]	
	Sens kBtu/h [kW]	1.8 [0.5]	1.6 [0.5]	1.5 [0.4]	-0.5 [-0.1]	-0.5 [-0.1]	-0.4 [-0.1]	5.3 [1.6]	5.0 [1.5]	4.4 [1.3]	
	Power	7.5	7.4	7.3	7.5	7.4	7.2	7.5	7.4	7.3	
120 [48.9]	Total kBtu/h [kW]	39.3 [11.5]	38.3 [11.2]	36.6 [10.7]	22.8 [6.7]	22.2 [6.5]	21.2 [6.2]	21.8 [6.4]	21.3 [6.2]	20.3 [6.0]	
	Sens kBtu/h [kW]	-3.6 [-1.1]	-3.4 [-1.0]	-3.0 [-0.9]	-5.8 [-1.7]	-5.5 [-1.6]	-4.9 [-1.4]	0.0 [0.0]	0.0 [0.0]	0.0 [0.0]	
	Power	7.9	7.8	7.7	7.9	7.8	7.6	7.9	7.8	7.7	

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

Total —Total capacity x 1000 Btu/h
Sens —Sensible capacity x 1000 Btu/h
Power —kW input

NOTES: ① When the entering air dry bulb is other than 75°F [23.9°C], adjust the sensible capacity from the table by adding [1.10 x CFM x (1 - DR) x (dbE - 80)].

[] Designates Metric Conversions

GROSS SYSTEMS PERFORMANCE DATA (LOW HUMIDIDRY MODE)–RACDYB102

ENTERING INDOOR AIR @ 75°F [23.9°C] dbE ①											
wbE		65.3°F [18.5°C]			64°F [17.8°C]			62.5°F [16.9°C]			
CFM [L/s]		2420 [1142]	2015 [951]	1610 [760]	2420 [1142]	2015 [951]	1610 [760]	2420 [1142]	2015 [951]	1610 [760]	
OUTDOOR DRY BULB TEMPERATURE °F [°C]	60 [15.6]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	38.5 [11.3] 5.2 [1.5] 5.3	37.1 [10.9] 4.7 [1.4] 5.2	35.8 [10.5] 4.3 [1.3] 5.1	32.6 [9.5] 5.1 [1.5] 5.1	31.4 [9.2] 4.6 [1.4] 5.1	30.3 [8.9] 4.2 [1.2] 5.0	28.3 [8.3] 6.9 [2.0] 5.0	27.3 [8.0] 6.3 [1.8] 4.9	26.3 [7.7] 5.7 [1.7] 4.8
	65 [18.3]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	37.9 [11.1] 4.2 [1.2] 5.4	36.5 [10.7] 3.8 [1.1] 5.3	35.2 [10.3] 3.5 [1.0] 5.2	31.9 [9.3] 4.1 [1.2] 5.2	30.8 [9.0] 3.7 [1.1] 5.1	29.7 [8.7] 3.4 [1.0] 5.0	27.6 [8.1] 5.9 [1.7] 5.0	26.7 [7.8] 5.4 [1.6] 5.0	25.7 [7.5] 4.9 [1.4] 4.9
	70 [21.1]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	37.2 [10.9] 3.4 [1.0] 5.5	35.8 [10.5] 3.1 [0.9] 5.4	34.5 [10.1] 2.8 [0.8] 5.3	31.2 [9.1] 3.3 [1.0] 5.3	30.1 [8.8] 3.0 [0.9] 5.2	29.0 [8.5] 2.7 [0.8] 5.1	26.9 [7.9] 5.1 [1.5] 5.1	26.0 [7.6] 4.7 [1.4] 5.0	25.0 [7.3] 4.2 [1.2] 4.9
	75 [23.9]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	36.4 [10.7] 2.9 [0.8] 5.5	35.1 [10.3] 2.6 [0.8] 5.4	33.8 [9.9] 2.4 [0.7] 5.3	30.5 [8.9] 2.7 [0.8] 5.3	29.4 [8.6] 2.5 [0.7] 5.3	28.3 [8.3] 2.3 [0.7] 5.2	26.2 [7.7] 4.5 [1.3] 5.2	25.3 [7.4] 4.2 [1.2] 5.1	24.4 [7.1] 3.8 [1.1] 5.0
	80 [26.7]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	35.6 [10.4] 2.5 [0.7] 5.5	34.4 [10.1] 2.3 [0.7] 5.4	33.1 [9.7] 2.1 [0.6] 5.4	29.7 [8.7] 2.4 [0.7] 5.4	28.6 [8.4] 2.2 [0.6] 5.3	27.6 [8.1] 2.0 [0.6] 5.2	25.4 [7.4] 4.2 [1.2] 5.2	24.5 [7.2] 3.8 [1.1] 5.1	23.6 [6.9] 3.5 [1.0] 5.0
	85 [29.4]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	34.8 [10.2] 2.3 [0.7] 5.6	33.5 [9.8] 2.1 [0.6] 5.5	32.3 [9.5] 1.9 [0.6] 5.4	28.8 [8.4] 2.2 [0.6] 5.4	27.8 [8.1] 2.0 [0.6] 5.3	26.8 [7.9] 1.8 [0.5] 5.2	24.6 [7.2] 4.0 [1.2] 5.2	23.7 [6.9] 3.7 [1.1] 5.1	22.8 [6.7] 3.3 [1.0] 5.0
	90 [32.2]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	33.9 [9.9] 2.3 [0.7] 5.6	32.7 [9.6] 2.1 [0.6] 5.5	31.5 [9.2] 1.9 [0.6] 5.4	27.9 [8.2] 2.2 [0.6] 5.4	27.0 [7.9] 2.0 [0.6] 5.3	26.0 [7.6] 1.8 [0.5] 5.2	23.7 [6.9] 4.0 [1.2] 5.2	22.8 [6.7] 3.7 [1.1] 5.1	22.0 [6.4] 3.3 [1.0] 5.1

GROSS SYSTEMS PERFORMANCE DATA (HIGH HUMIDIDRY MODE)–RACDYB102

ENTERING INDOOR AIR @ 75°F [23.9°C] dbE ①											
wbE		65.3°F [18.5°C]			64°F [17.8°C]			62.5°F [16.9°C]			
CFM [L/s]		4080 [1926]	3375 [1593]	2720 [1284]	4080 [1926]	3375 [1593]	2720 [1284]	4080 [1926]	3375 [1593]	2720 [1284]	
OUTDOOR DRY BULB TEMPERATURE °F [°C]	60 [15.6]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	69.8 [20.5] 17.7 [5.2] 7.1	67.3 [19.7] 16.1 [4.7] 6.9	64.9 [19.0] 14.7 [4.3] 6.8	50.2 [14.7] 14.6 [4.3] 7.0	48.3 [14.2] 13.3 [3.9] 6.9	46.6 [13.7] 12.1 [3.5] 6.8	50.1 [14.7] 22.7 [6.6] 7.1	48.2 [14.1] 20.6 [6.0] 6.9	46.5 [13.6] 18.8 [5.5] 6.8
	70 [21.1]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	64.5 [18.9] 12.5 [3.7] 7.1	62.1 [18.2] 11.4 [3.3] 7.0	60.0 [17.6] 10.3 [3.0] 6.9	44.9 [13.1] 9.4 [2.8] 7.1	43.2 [12.7] 8.6 [2.5] 6.9	41.7 [12.2] 7.8 [2.3] 6.8	44.8 [13.1] 17.4 [5.1] 7.1	43.1 [12.6] 15.9 [4.7] 7.0	41.6 [12.2] 14.5 [4.2] 6.9
	80 [26.7]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	60.8 [17.8] 9.0 [2.6] 7.3	58.5 [17.2] 8.2 [2.4] 7.1	56.5 [16.5] 7.4 [2.2] 7.0	41.1 [12.1] 5.9 [1.7] 7.2	39.6 [11.6] 5.3 [1.6] 7.1	38.2 [11.2] 4.9 [1.4] 7.0	41.0 [12.0] 13.9 [4.1] 7.3	39.5 [11.6] 12.7 [3.7] 7.2	38.1 [11.2] 11.5 [3.4] 7.0
	90 [32.2]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	58.6 [17.2] 7.1 [2.1] 7.5	56.4 [16.5] 6.5 [1.9] 7.4	54.5 [16.0] 5.9 [1.7] 7.3	39.0 [11.4] 4.0 [1.2] 7.5	37.5 [11.0] 3.7 [1.1] 7.4	36.2 [10.6] 3.3 [1.0] 7.2	38.9 [11.4] 12.1 [3.5] 7.6	37.4 [11.0] 11.0 [3.2] 7.4	36.1 [10.6] 10.0 [2.9] 7.3
	100 [37.8]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	58.0 [17.0] 7.0 [2.1] 7.9	55.9 [16.4] 6.4 [1.9] 7.8	53.9 [15.8] 5.8 [1.7] 7.6	38.4 [11.2] 3.9 [1.1] 7.9	37.0 [10.8] 3.6 [1.0] 7.7	35.7 [10.4] 3.2 [0.9] 7.6	38.3 [11.2] 12.0 [3.5] 7.9	36.9 [10.8] 10.9 [3.2] 7.8	35.6 [10.4] 9.9 [2.9] 7.6
	110 [43.3]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	59.0 [17.3] 8.6 [2.5] 8.4	56.8 [16.6] 7.8 [2.3] 8.2	54.8 [16.1] 7.1 [2.1] 8.1	39.3 [11.5] 5.5 [1.6] 8.3	37.9 [11.1] 5.0 [1.5] 8.2	36.6 [10.7] 4.5 [1.3] 8.0	39.2 [11.5] 13.5 [4.0] 8.4	37.8 [11.1] 12.3 [3.6] 8.2	36.5 [10.7] 11.2 [3.3] 8.1
	120 [48.9]	Total kBtu/h [kW] Sens kBtu/h [kW] Power	61.5 [18.0] 11.8 [3.5] 8.9	59.2 [17.4] 10.8 [3.2] 8.8	57.2 [16.7] 9.8 [2.9] 8.6	41.9 [12.3] 8.7 [2.6] 8.9	40.3 [11.8] 7.9 [2.3] 8.7	38.9 [11.4] 7.2 [2.1] 8.6	41.8 [12.2] 16.8 [4.9] 8.9	40.2 [11.8] 15.3 [4.5] 8.8	38.8 [11.4] 13.9 [4.1] 8.6

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

Total —Total capacity x 1000 Btu/h
Sens —Sensible capacity x 1000 Btu/h
Power —kW input

NOTES: ① When the entering air dry bulb is other than 75°F [23.9°C], adjust the sensible capacity from the table by adding $[1.10 \times \text{CFM} \times (1 - \text{DR}) \times (\text{dbE} - 80)]$.

[] Designates Metric Conversions

GROSS SYSTEMS PERFORMANCE DATA (LOW HUMIDIDRY MODE)—RACDYB120

ENTERING INDOOR AIR @ 75°F [23.9°C] dbE ①											
wbE			65.3°F [18.5°C]			64°F [17.8°C]			62.5°F [16.9°C]		
CFM [L/s]			2880 [1359]	2400 [1133]	1920 [906]	2880 [1359]	2400 [1133]	1920 [906]	2880 [1359]	2400 [1133]	1920 [906]
OUTDOOR DRY BULB TEMPERATURE °F [°C]	60 [15.6]	Total kBtu/h [kW]	39.3 [11.5]	37.9 [11.1]	36.6 [10.7]	34.0 [10.0]	32.8 [9.6]	31.6 [9.3]	29.6 [8.7]	28.5 [8.4]	27.5 [8.1]
		Sens kBtu/h [kW]	3.9 [1.1]	3.6 [1.0]	3.2 [0.9]	3.7 [1.1]	3.4 [1.0]	3.0 [0.9]	4.9 [1.4]	4.5 [1.3]	4.1 [1.2]
		Power	4.8	4.7	4.7	4.8	4.8	4.7	4.9	4.8	4.8
	65 [18.3]	Total kBtu/h [kW]	38.2 [11.2]	36.9 [10.8]	35.5 [10.4]	32.9 [9.6]	31.8 [9.3]	30.6 [9.0]	28.4 [8.3]	27.4 [8.0]	26.4 [7.7]
		Sens kBtu/h [kW]	2.5 [0.7]	2.3 [0.7]	2.1v [0.6]	2.3 [0.7]	2.1 [0.6]	1.9 [0.6]	3.5 [1.0]	3.2 [0.9]	2.9 [0.8]
		Power	4.9	4.8	4.7	4.9	4.8	4.7	5.0	4.9	4.8
	70 [21.1]	Total kBtu/h [kW]	37.5 [11.0]	36.2 [10.6]	34.8 [10.2]	32.2 [9.4]	31.1 [9.1]	29.9 [8.8]	27.7 [8.1]	26.7 [7.8]	25.8 [7.6]
		Sens kBtu/h [kW]	1.7 [0.5]	1.6 [0.5]	1.4 [0.4]	1.5 [0.4]	1.3 [0.4]	1.2 [0.4]	2.7 [0.8]	2.5 [0.7]	2.2 [0.7]
		Power	4.9	4.8	4.8	4.9	4.9	4.8	5.0	4.9	4.9
	75 [23.9]	Total kBtu/h [kW]	37.2 [10.9]	35.8 [10.5]	34.5 [10.1]	31.9 [9.3]	30.8 [9.0]	29.6 [8.7]	27.4 [8.0]	26.4 [7.7]	25.5 [7.5]
		Sens kBtu/h [kW]	1.5 [0.4]	1.4 [0.4]	1.3 [0.4]	1.3 [0.4]	1.2 [0.3]	1.1 [0.3]	2.5 [0.7]	2.3 [0.7]	2.1 [0.6]
		Power	5.0	4.9	4.8	5.0	4.9	4.9	5.1	5.0	4.9
	80 [26.7]	Total kBtu/h [kW]	37.2 [10.9]	35.9 [10.5]	34.6 [10.1]	31.9 [9.4]	30.8 [9.0]	29.7 [8.7]	27.5 [8.0]	26.5 [7.8]	25.5 [7.5]
		Sens kBtu/h [kW]	2.0 [0.6]	1.8 [0.5]	1.6 [0.5]	1.8 [0.5]	1.6 [0.5]	1.5 [0.4]	3.0 [0.9]	2.7 [0.8]	2.5 [0.7]
		Power	5.1	5.0	4.9	5.1	5.0	4.9	5.2	5.1	5.0
	85 [29.4]	Total kBtu/h [kW]	37.7 [11.0]	36.4 [10.7]	35 [10.3]	32.4 [9.5]	31.3 [9.2]	30.1 [8.8]	27.9 [8.2]	26.9 [7.9]	26.0 [7.6]
		Sens kBtu/h [kW]	3.0 [0.9]	2.8 [0.8]	2.5 [0.7]	2.8 [0.8]	2.6 [0.8]	2.3 [0.7]	4.0 [1.2]	3.7 [1.1]	3.4 [1.0]
		Power	5.2	5.1	5.0	5.2	5.2	5.1	5.3	5.2	5.1
	90 [32.2]	Total kBtu/h [kW]	38.6 [11.3]	37.2 [10.9]	35.8 [10.5]	33.3 [9.7]	32.1 [9.4]	30.9 [9.1]	28.8 [8.4]	27.8 [8.1]	26.8 [7.8]
		Sens kBtu/h [kW]	4.7 [1.4]	4.3 [1.3]	3.9 [1.2]	4.5 [1.3]	4.1 [1.2]	3.7 [1.1]	5.7 [1.7]	5.2 [1.5]	4.8 [1.4]
		Power	5.4	5.3	5.2	5.4	5.3	5.2	5.5	5.4	5.3

GROSS SYSTEMS PERFORMANCE DATA (HIGH HUMIDIDRY MODE)—RACDYB120

ENTERING INDOOR AIR @ 75°F [23.9°C] dbE ①											
wbE			65.3°F [18.5°C]			64°F [17.8°C]			62.5°F [16.9°C]		
CFM [L/s]			4800 [2265]	3940 [1859]	3200 [1510]	4800 [2265]	3940 [1859]	3200 [1510]	4800 [2265]	3940 [1859]	3200 [1510]
OUTDOOR DRY BULB TEMPERATURE °F [°C]	60 [15.6]	Total kBtu/h [kW]	91.7 [26.9]	88.2 [25.8]	85.2 [25.0]	63.4 [18.6]	61.0 [17.9]	58.9 [17.3]	72.9 [21.4]	70.1 [20.5]	67.7 [19.8]
		Sens kBtu/h [kW]	21.7 [6.4]	19.7 [5.8]	18.0 [5.3]	15.5 [4.5]	14.0 [4.1]	12.8 [3.8]	26.5 [7.8]	24.0 [7.0]	21.9 [6.4]
		Power	7.7	7.6	7.5	7.6	7.5	7.3	7.7	7.6	7.4
	70 [21.1]	Total kBtu/h [kW]	77.4 [22.7]	74.4 [21.8]	71.9 [21.1]	49.1 [14.4]	47.2 [13.8]	45.6 [13.4]	58.6 [17.2]	56.3 [16.5]	54.4 [15.9]
		Sens kBtu/h [kW]	15.2 [4.5]	13.8 [4.0]	12.6 [3.7]	8.9 [2.6]	8.1 [2.4]	7.4 [2.2]	19.9 [5.8]	18.1 [5.3]	16.5 [4.8]
		Power	7.7	7.6	7.5	7.6	7.4	7.3	7.7	7.5	7.4
	80 [26.7]	Total kBtu/h [kW]	68.0 [19.9]	65.4 [19.2]	63.1 [18.5]	39.6 [11.6]	38.1 [11.2]	36.8 [10.8]	49.1 [14.4]	47.3 [13.9]	45.7 [13.4]
		Sens kBtu/h [kW]	11.2 [3.3]	10.2 [3.0]	9.3 [2.7]	5.0 [1.5]	4.5 [1.3]	4.1 [1.2]	16.0 [4.7]	14.5 [4.2]	13.2 [3.9]
		Power	7.9	7.8	7.6	7.8	7.6	7.5	7.9	7.7	7.6
	90 [32.2]	Total kBtu/h [kW]	63.4 [18.6]	61.0 [17.9]	58.9 [17.3]	35.1 [10.3]	33.7 [9.9]	32.6 [9.5]	44.6 [13.1]	42.9 [12.6]	41.4 [12.1]
		Sens kBtu/h [kW]	9.8 [2.9]	8.9 [2.6]	8.1 [2.4]	3.6 [1.0]	3.2 [0.9]	2.9 [0.9]	14.5 [4.3]	13.2 [3.9]	12.0 [3.5]
		Power	8.3	8.1	8.0	8.1	8.0	7.9	8.2	8.1	8.0
100 [37.8]	Total kBtu/h [kW]	63.7 [18.7]	61.3 [17.9]	59.2 [17.3]	35.4 [10.4]	34.0 [10.0]	32.8 [9.6]	44.9 [13.1]	43.1 [12.6]	41.7 [12.2]	
	Sens kBtu/h [kW]	11.0 [3.2]	9.9 [2.9]	9.1 [2.7]	4.7 [1.4]	4.3 [1.2]	3.9 [1.1]	15.7 [4.6]	14.2 [4.2]	13.0 [3.8]	
	Power	8.9	8.7	8.6	8.7	8.6	8.4	8.8	8.7	8.5	
110 [43.3]	Total kBtu/h [kW]	68.8 [20.2]	66.2 [19.4]	63.9 [18.7]	40.5 [11.9]	39.0 [11.4]	37.6 [11.0]	50.0 [14.7]	48.1 [14.1]	46.4 [13.6]	
	Sens kBtu/h [kW]	14.7 [4.3]	13.3 [3.9]	12.1 [3.6]	8.4 [2.5]	7.6 [2.2]	7.0 [2.0]	19.4 [5.7]	17.6 [5.2]	16.1 [4.7]	
	Power	9.6	9.5	9.3	9.5	9.3	9.2	9.6	9.4	9.3	
120 [48.9]	Total kBtu/h [kW]	78.8 [23.1]	75.8 [22.2]	73.2 [21.5]	50.5 [14.8]	48.6 [14.2]	46.9 [13.7]	60.0 [17.6]	57.7 [16.9]	55.7 [16.3]	
	Sens kBtu/h [kW]	20.9 [6.1]	19.0 [5.6]	17.3 [5.1]	14.7 [4.3]	13.3 [3.9]	12.1 [3.6]	25.6 [7.5]	23.3 [6.8]	21.2 [6.2]	
	Power	10.6	10.4	10.2	10.5	10.3	10.1	10.6	10.4	10.2	

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

Total —Total capacity x 1000 Btu/h
Sens —Sensible capacity x 1000 Btu/h
Power —kW input

NOTES: ① When the entering air dry bulb is other than 75°F [23.9°C], adjust the sensible capacity from the table by adding $[1.10 \times \text{CFM} \times (1 - \text{DR}) \times (\text{dbE} - 80)]$.

[] Designates Metric Conversions

GROSS SYSTEMS PERFORMANCE DATA (LOW HUMIDIDRY MODE)—RACDYB150

ENTERING INDOOR AIR @ 75°F [23.9°C] dbE ①											
wbE			65.3°F [18.5°C]			64°F [17.8°C]			62.5°F [16.9°C]		
CFM [L/s]			3020 [1425]	2515 [1187]	2010 [949]	3020 [1425]	2515 [1187]	2010 [949]	3020 [1425]	2515 [1187]	2010 [949]
OUTDOOR DRY BULB TEMPERATURE °F [°C]	60 [15.6]	Total kBtu/h [kW]	43.9 [12.9]	42.4 [12.4]	40.8 [12.0]	42.2 [12.4]	40.8 [11.9]	39.3 [11.5]	33.9 [9.9]	32.7 [9.6]	31.5 [9.2]
		Sens kBtu/h [kW]	16.0 [4.7]	14.7 [4.3]	13.3 [3.9]	20.3 [5.9]	18.5 [5.4]	16.8 [4.9]	13.2 [3.9]	12.0 [3.5]	10.9 [3.2]
		Power	4.6	4.5	4.4	4.5	4.4	4.4	4.5	4.4	4.4
	65 [18.3]	Total kBtu/h [kW]	38.7 [11.3]	37.3 [10.9]	35.9 [10.5]	37.0 [10.8]	35.7 [10.5]	34.4 [10.1]	28.7 [8.4]	27.7 [8.1]	26.6 [7.8]
		Sens kBtu/h [kW]	6.0 [1.8]	5.5 [1.6]	5.0 [1.5]	10.3 [3.0]	9.4 [2.8]	8.5 [2.5]	3.2 [0.9]	2.9 [0.8]	2.6 [0.8]
		Power	4.4	4.3	4.3	4.4	4.3	4.2	4.4	4.3	4.2
	70 [21.1]	Total kBtu/h [kW]	34.8 [10.2]	33.6 [9.8]	32.4 [9.5]	33.1 [9.7]	32.0 [9.4]	30.8 [9.0]	24.8 [7.3]	24.0 [7.0]	23.1 [6.8]
		Sens kBtu/h [kW]	-1.1 [-0.3]	-1.0 [-0.3]	-0.9 [-0.3]	3.2 [0.9]	2.9 [0.8]	2.6 [0.8]	-3.9 [-1.2]	-3.6 [-1.1]	-3.3 [-1.0]
		Power	4.4	4.3	4.2	4.3	4.2	4.1	4.3	4.2	4.2
°F [°C]	75 [23.9]	Total kBtu/h [kW]	32.4 [9.5]	31.3 [9.2]	30.2 [8.8]	30.8 [9.0]	29.7 [8.7]	28.6 [8.4]	22.4 [6.6]	21.6 [6.3]	20.9 [6.1]
		Sens kBtu/h [kW]	-5.3 [-1.5]	-4.8 [-1.4]	-4.4 [-1.3]	-1.0 [-0.3]	-1.0 [-0.3]	-0.9 [-0.3]	-8.2 [-2.4]	-7.5 [-2.2]	-6.8 [-2.0]
		Power	4.4	4.3	4.2	4.3	4.2	4.2	4.3	4.3	4.2
	80 [26.7]	Total kBtu/h [kW]	31.5 [9.2]	30.4 [8.9]	29.3 [8.6]	29.8 [8.7]	28.8 [8.4]	27.7 [8.1]	21.5 [6.3]	20.7 [6.1]	20.0 [5.9]
		Sens kBtu/h [kW]	-6.6 [-1.9]	-6.0 [-1.8]	-5.5 [-1.6]	-2.4 [-0.7]	-2.2 [-0.6]	-2.0 [-0.6]	-9.5 [-2.8]	-8.7 [-2.5]	-7.9 [-2.3]
		Power	4.5	4.4	4.3	4.4	4.3	4.3	4.4	4.3	4.3
	85 [29.4]	Total kBtu/h [kW]	32.0 [9.4]	30.9 [9.0]	29.7 [8.7]	30.3 [8.9]	29.2 [8.6]	28.2 [8.3]	22.0 [6.4]	21.2 [6.2]	20.4 [6.0]
		Sens kBtu/h [kW]	-5.0 [-1.5]	-4.6 [-1.3]	-4.2 [-1.2]	-0.8 [-0.2]	-0.7 [-0.2]	-0.7 [-0.2]	-7.9 [-2.3]	-7.2 [-2.1]	-6.5 [-1.9]
		Power	4.7	4.6	4.5	4.6	4.5	4.4	4.6	4.5	4.4
°F [°C]	90 [32.2]	Total kBtu/h [kW]	33.9 [9.9]	32.7 [9.6]	31.5 [9.2]	32.2 [9.4]	31.1 [9.1]	29.9 [8.8]	23.9 [7.0]	23.1 [6.8]	22.2 [6.5]
		Sens kBtu/h [kW]	-0.6 [-0.2]	-0.5 [-0.2]	-0.5 [-0.1]	3.7 [1.1]	3.4 [1.0]	3.0 [0.9]	-3.4 [-1.0]	-3.1 [-0.9]	-2.9 [-0.8]
		Power	4.9	4.8	4.7	4.9	4.8	4.7	4.9	4.8	4.7

GROSS SYSTEMS PERFORMANCE DATA (HIGH HUMIDIDRY MODE)—RACDYB150

ENTERING INDOOR AIR @ 75°F [23.9°C] dbE ①											
wbE			65.3°F [18.5°C]			64°F [17.8°C]			62.5°F [16.9°C]		
CFM [L/s]			6000 [2832]	4300 [2029]	4000 [1888]	6000 [2832]	4300 [2029]	4000 [1888]	6000 [2832]	4300 [2029]	4000 [1888]
OUTDOOR DRY BULB TEMPERATURE °F [°C]	60°F [15.6]	Total kBtu/h [kW]	86.7 [25.4]	80.9 [23.7]	79.9 [23.4]	85.0 [24.9]	79.3 [23.2]	78.3 [22.9]	76.8 [22.5]	71.7 [21.0]	70.8 [20.7]
		Sens kBtu/h [kW]	22.2 [6.5]	18.8 [5.5]	18.2 [5.3]	30.1 [8.8]	25.4 [7.4]	24.6 [7.2]	39.8 [11.7]	33.6 [9.9]	32.5 [9.5]
		Power	9.4	9.1	9.1	9.2	8.9	8.8	9.3	9.0	9.0
	70°F [21.1]	Total kBtu/h [kW]	82.0 [24.0]	76.5 [22.4]	75.6 [22.1]	80.3 [23.5]	75.0 [22.0]	74.0 [21.7]	72.2 [21.1]	67.3 [19.7]	66.5 [19.5]
		Sens kBtu/h [kW]	11.2 [3.3]	9.4 [2.8]	9.1 [2.7]	19.0 [5.6]	16.1 [4.7]	15.6 [4.6]	28.8 [8.4]	24.3 [7.1]	23.5 [6.9]
		Power	9.7	9.4	9.4	9.5	9.2	9.1	9.7	9.3	9.3
	80°F [26.7]	Total kBtu/h [kW]	77.2 [22.6]	72.1 [21.1]	71.1 [20.8]	75.5 [22.1]	70.5 [20.7]	69.6 [20.4]	67.4 [19.7]	62.8 [18.4]	62.1 [18.2]
		Sens kBtu/h [kW]	2.1 [0.6]	1.7 [0.5]	1.7 [0.5]	9.9 [2.9]	8.4 [2.5]	8.1 [2.4]	19.7 [5.8]	16.6 [4.9]	16.1 [4.7]
		Power	10.3	9.9	9.8	10	9.7	9.6	10.2	9.8	9.8
°F [°C]	90°F [32.2]	Total kBtu/h [kW]	72.3 [21.2]	67.4 [19.8]	66.6 [19.5]	70.6 [20.7]	65.9 [19.3]	65 [19.1]	62.4 [18.3]	58.2 [17.1]	57.5 [16.8]
		Sens kBtu/h [kW]	-5.1 [-1.5]	-4.3 [-1.3]	-4.2 [-1.2]	2.8 [0.8]	2.4 [0.7]	2.3 [0.7]	12.5 [3.7]	10.6 [3.1]	10.2 [3.0]
		Power	11.0	10.6	10.5	10.7	10.4	10.3	10.9	10.5	10.4
	100°F [37.8]	Total kBtu/h [kW]	67.2 [19.7]	62.7 [18.4]	61.9 [18.1]	65.5 [19.2]	61.1 [17.9]	60.3 [17.7]	57.3 [16.8]	53.5 [15.7]	52.8 [15.5]
		Sens kBtu/h [kW]	-10.3 [-3.0]	-8.7 [-2.5]	-8.4 [-2.5]	-2.4 [-0.7]	-2.0 [-0.6]	-1.9 [-0.6]	7.3 [2.2]	6.2 [1.8]	6.0 [1.8]
		Power	11.9	11.5	11.4	11.7	11.3	11.2	11.8	11.4	11.3
	110 [43.3]	Total kBtu/h [kW]	62.0 [18.2]	57.8 [16.9]	57.1 [16.7]	60.3 [17.7]	56.2 [16.5]	55.5 [16.3]	52.1 [15.3]	48.6 [14.2]	48.0 [14.1]
		Sens kBtu/h [kW]	-13.5 [-4.0]	-11.4 [-3.3]	-11.0 [-3.2]	-5.6 [-1.6]	-4.7 [-1.4]	-4.6 [-1.3]	4.1 [1.2]	3.5 [1.0]	3.4 [1.0]
		Power	13.0	12.6	12.5	12.8	12.3	12.3	12.9	12.5	12.4
°F [°C]	120 [48.9]	Total kBtu/h [kW]	56.6 [16.6]	52.8 [15.5]	52.1 [15.3]	54.9 [16.1]	51.2 [15.0]	50.6 [14.8]	46.7 [13.7]	43.6 [12.8]	43.0 [12.6]
		Sens kBtu/h [kW]	-14.7 [-4.3]	-12.4 [-3.6]	-12.0 [-3.5]	-6.9 [-2.0]	-5.8 [-1.7]	-5.6 [-1.6]	2.9 [0.8]	2.4 [0.7]	2.3 [0.7]
		Power	14.3	13.8	13.8	14.1	13.6	13.5	14.2	13.8	13.7

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

Total —Total capacity x 1000 Btu/h
Sens —Sensible capacity x 1000 Btu/h
Power —kW input

NOTES: ① When the entering air dry bulb is other than 75°F [23.9°C], adjust the sensible capacity from the table by adding $[1.10 \times \text{CFM} \times (1 - \text{DR}) \times (\text{dbE} - 80)]$.

[] Designates Metric Conversions

AIRFLOW PERFORMANCE— 7.5 TON [26.4 kW] — 60 Hz — DOWNFLOW

Air Flow CFM [L/s]	Model RACDYB090												Voltage 208/230, 460, 575 — 3 phase 60 Hz												External Static Pressure—Inches of Water [kPa]															
	0.1 [0.02]		0.2 [0.05]		0.3 [0.07]		0.4 [0.10]		0.5 [0.12]		0.6 [0.15]		0.7 [0.17]		0.8 [0.20]		0.9 [0.22]		1.0 [0.25]		1.1 [0.27]		1.2 [0.30]		1.3 [0.32]		1.4 [0.35]		1.5 [0.37]		1.6 [0.40]		1.7 [0.42]		1.8 [0.45]		1.9 [0.47]		2.0 [0.50]	
	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W
2400 [1133]	—	—	—	—	567	800	603	833	638	870	672	911	706	955	739	1003	772	1055	803	1111	835	1170	865	1233	895	1300	925	1370	954	1444	982	1522	1009	1604	1036	1689	1063	1779		
2500 [1180]	—	—	—	—	575	827	610	862	645	900	678	942	712	987	744	1036	776	1089	808	1146	838	1207	869	1271	898	1339	927	1411	955	1486	983	1565	1010	1648	1037	1735	1062	1825		
2600 [1227]	—	—	—	—	548	825	583	857	618	892	652	932	685	975	718	1022	750	1072	781	1127	812	1185	843	1246	872	1312	901	1381	930	1454	958	1531	1011	1695	1037	1783	1063	1875		
2700 [1270]	—	—	—	—	557	856	591	889	626	926	659	966	692	1011	724	1059	756	1111	787	1166	817	1226	847	1289	876	1355	905	1426	933	1500	960	1578	1031	1745	1038	1834	1063	1927		
2800 [1321]	—	—	—	—	566	890	600	924	634	962	667	1004	699	1049	731	1099	762	1152	793	1209	822	1269	852	1333	880	1401	909	1473	936	1549	963	1628	989	1711	1015	1797	1040	1888	1064	1982
2900 [1368]	—	—	—	—	576	926	609	962	642	1001	675	1044	707	1091	738	1141	769	1196	799	1254	828	1315	857	1381	885	1450	910	1523	940	1600	966	1680	992	1764	1017	1852	1041	1944	1065	2039
3000 [1416]	—	—	552	932	586	965	619	1002	651	1042	683	1087	715	1135	745	1187	776	1242	805	1301	834	1364	862	1431	890	1502	917	1576	944	1654	989	1735	995	1821	1019	1910	1043	2003	1066	2099
3100 [1463]	—	—	562	972	596	1007	629	1045	661	1087	692	1132	723	1181	753	1234	783	1291	812	1352	840	1416	868	1484	895	1556	922	1631	948	1710	973	1793	988	1800	1022	1910	1045	2064	1068	2162
3200 [1510]	—	—	574	1015	606	1051	639	1090	670	1133	701	1180	732	1231	761	1285	791	1343	819	1405	847	1470	874	1540	901	1612	927	1689	952	1770	977	1854	1002	1942	1025	2033	1048	2129	1070	2228
3300 [1557]	552	1028	585	1061	617	1098	649	1139	680	1183	711	1231	741	1283	770	1338	799	1398	827	1461	854	1527	881	1598	901	1672	933	1750	957	1831	987	1917	1005	2076	1029	2099	1051	2195	1073	2296
3400 [1604]	564	1075	597	1110	629	1148	660	1190	691	1235	721	1284	750	1337	779	1394	807	1455	834	1519	861	1587	888	1659	913	1734	938	1813	963	1896	987	1983	1010	2073	1032	2167	1054	2265	1076	2367
3500 [1652]	577	1125	609	1161	640	1200	671	1243	701	1290	731	1340	760	1395	788	1453	815	1514	843	1580	869	1649	895	1722	920	1799	944	1879	968	1963	992	2051	1014	2143	1037	2238	1058	2337	1079	2440
3600 [1699]	590	1178	621	1215	652	1255	683	1299	712	1347	741	1399	770	1455	797	1514	824	1577	851	1644	877	1714	902	1788	927	1866	951	1948	974	2033	997	2122	919	2215	1041	2312	1062	2412	1082	2516

NOTE: F-Drive left of the bold line, G-Drive right of the bold line, H-Drive right of second bold line.

Drive Package	F												G												H											
Motor H.P. [W]	2 [1491.4]												3 [2237.1]												3 [2237.1]											
Blower Sheave	AK84H												AK84H												AK84H											
Motor Sheave	1VP40												1VP50												1VP56											
Belt	A49												A50												A51											
Turns Open	0	1	2	3	4	5	0	1	2	3	4	5	0	1	2	3	4	5	0	1	2	3	4	5												
RPM	766	722	677	634	591	544	990	948	906	864	822	779	1109	1069	1029	988	948	906	866	826	786	746	706	666												

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

[] Designates Metric Conversions

AIRFLOW PERFORMANCE — 7.5 TON [26.4 kW] — 60 Hz — DOWNFLOW (CONTINUED)

Airflow	AIRFLOW CORRECTION FACTORS *			COMPONENT AIRFLOW RESISTANCE						
	CFM [L/s]	Total kBtu/h	Sensible kBtu/h	Power kW	Wet Coil	Vertical Economizer RA Damper Open	Concentric Diffuser RXRN-AEF2000 & Concentric Adapter RXMC-DD01 (Flush)	Concentric Diffuser RXRN-AED2000 & Concentric Adapter RXMC-DD01 (Drop)	Pressure Drop MERV 8	Pressure Drop MERV 13
2400 [1133]	0.96	0.89		0.98	0.04 [.01]	0.01 [.00]	0.66 [.16]	0.53 [.13]	0.093 [.02]	0.047 [.01]
2500 [1180]	0.96	0.90		0.99	0.05 [.01]	0.02 [.00]	0.71 [.18]	0.57 [.14]	0.098 [.02]	0.055 [.01]
2600 [1227]	0.97	0.92		0.99	0.05 [.01]	0.02 [.01]	0.75 [.19]	0.60 [.15]	0.103 [.02]	0.062 [.01]
2700 [1274]	0.97	0.93		0.99	0.05 [.01]	0.03 [.01]	0.80 [.20]	0.65 [.16]	0.108 [.03]	0.070 [.02]
2800 [1321]	0.98	0.95		0.99	0.06 [.01]	0.04 [.01]	0.85 [.21]	0.69 [.17]	0.113 [.03]	0.078 [.02]
2900 [1368]	0.98	0.96		1.00	0.06 [.02]	0.04 [.01]	0.91 [.23]	0.74 [.18]	0.117 [.03]	0.085 [.02]
3000 [1416]	0.99	0.97		1.00	0.07 [.02]	0.05 [.01]	0.96 [.24]	0.79 [.20]	0.122 [.03]	0.093 [.02]
3100 [1463]	1.00	0.99		1.00	0.07 [.02]	0.06 [.02]	1.02 [.25]	0.86 [.21]	0.127 [.03]	0.100 [.02]
3200 [1510]	1.00	1.00		1.01	0.07 [.02]	0.07 [.02]	1.08 [.27]	0.92 [.23]	0.132 [.03]	0.108 [.03]
3300 [1557]	1.01	1.02		1.01	0.08 [.02]	0.08 [.02]	1.15 [.29]	0.99 [.25]	0.137 [.03]	0.115 [.03]
3400 [1604]	1.01	1.03		1.01	0.08 [.02]	0.09 [.02]	1.21 [.30]	1.05 [.26]	0.142 [.03]	0.123 [.03]
3500 [1652]	1.02	1.05		1.01	0.09 [.02]	0.10 [.02]	1.29 [.32]	1.09 [.27]	0.147 [.04]	0.131 [.03]
3600 [1699]	1.02	1.06		1.02	0.09 [.02]	0.11 [.03]	1.36 [.34]	1.13 [.28]	0.152 [.04]	0.138 [.03]

*Multiply correction factor times gross performance data resulting sensible capacity cannot exceed total capacity.

[] Designates Metric Conversions

AIRFLOW PERFORMANCE— 7.5 TON [26.4 kW] — 60 Hz — SIDEFLOW

Air Flow CFM [L/s]	Model RACDYB090 Voltage 208/230, 460, 575 — 3 phase 60 Hz																							
	External Static Pressure—Inches of Water [kPa]																							
	0.1 [0.02]	0.2 [0.05]	0.3 [0.07]	0.4 [0.10]	0.5 [0.12]	0.6 [0.15]	0.7 [0.17]	0.8 [0.20]	0.9 [0.22]	1.0 [0.25]	1.1 [0.27]	1.2 [0.30]	1.3 [0.32]	1.4 [0.35]	1.5 [0.37]	1.6 [0.40]	1.7 [0.42]	1.8 [0.45]	1.9 [0.47]	2.0 [0.50]				
	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W
2400 [1133]	—	—	—	558	804	594	845	630	890	665	936	700	985	734	1035	767	1089	799	1144	831	1202	861	1262	892
2500 [1180]	—	—	—	565	834	601	877	637	922	671	970	705	1019	739	1071	771	1126	803	1182	834	1241	864	1302	894
2600 [1227]	—	—	—	573	867	609	911	644	957	678	1006	711	1056	744	1109	776	1165	807	1222	838	1282	867	1345	896
2700 [1274]	—	—	—	546	859	581	902	616	947	651	994	684	1044	717	1095	749	1149	781	1206	812	1265	842	1326	871
2800 [1321]	—	—	—	555	895	590	939	624	985	658	1033	691	1084	724	1136	755	1192	786	1249	816	1309	846	1371	875
2900 [1368]	—	—	—	564	933	599	978	633	1025	666	1074	699	1126	730	1180	762	1236	792	1294	822	1355	851	1418	879
3000 [1416]	—	—	—	574	973	608	1019	641	1067	674	1117	706	1170	738	1225	768	1282	798	1342	827	1404	856	1468	883
3100 [1463]	—	550	970	584	1015	618	1062	651	1111	683	1163	714	1216	745	1272	775	1331	804	1391	833	1454	861	1520	888
3200 [1510]	—	561	1013	594	1059	628	1107	660	1157	692	1210	723	1265	753	1322	782	1381	811	1443	839	1507	867	1573	893
3300 [1557]	—	572	1059	605	1105	638	1154	670	1206	701	1259	731	1315	761	1373	790	1434	818	1497	846	1562	873	1629	899
3400 [1604]	550	1060	584	1106	616	1154	648	1204	680	1256	710	1311	740	1368	770	1427	798	1489	826	1552	853	1619	879	1687
3500 [1652]	563	1109	596	1155	628	1204	659	1255	690	1309	720	1364	750	1423	778	1483	806	1545	834	1610	860	1678	886	1747
3600 [1699]	575	1159	608	1207	640	1257	671	1309	701	1363	731	1420	759	1479	788	1541	815	1604	842	1670	868	1739	893	1809

NOTE: F-Drive left of the bold line, G-Drive right of the bold line, H-Drive right of second bold line.

Drive Package	F						G						H					
Motor H.P. [W]	2 [1491.4]						3 [2237.1]						3 [2237.1]					
Blower Sheave	AK84H						AK84H						AK84H					
Motor Sheave	1VP40						1VP50						1VP56					
Belt	A49						A50						A51					
Turns Open	0	1	2	3	4	5	0	1	2	3	4	5	0	1	2	3	4	5
RPM	766	720	676	632	587	545	989	947	904	863	821	778	1075	1067	1031	989	947	906

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

[] Designates Metric Conversions

AIRFLOW PERFORMANCE — 7.5 TON [26.4 kW] — 60 Hz — SIDEFLOW (CONTINUED)

Airflow	AIRFLOW CORRECTION FACTORS *				COMPONENT AIRFLOW RESISTANCE					
	CFM [L/s]	Total kBtu/h	Sensible kBtu/h	Power kW	Wet Coil	Horizontal Economizer RA Damper Open	Concentric Diffuser RXRN-AEF2000 & Concentric Adapter RXMC-DD01 (Flush)	Concentric Diffuser RXRN-AED2000 & Concentric Adapter RXMC-DD01 (Drop)	Pressure Drop MERV 8	Pressure Drop MERV 13
2400 [1133]	0.96	0.89		0.98	0.04 [01]	0.21 [05]	0.66 [16]	0.53 [13]	0.093 [02]	0.047 [01]
2500 [1180]	0.96	0.90		0.99	0.05 [01]	0.25 [06]	0.71 [18]	0.57 [14]	0.098 [02]	0.055 [01]
2600 [1227]	0.97	0.92		0.99	0.05 [01]	0.28 [07]	0.75 [19]	0.60 [15]	0.103 [02]	0.062 [01]
2700 [1274]	0.97	0.93		0.99	0.05 [01]	0.32 [08]	0.80 [20]	0.65 [16]	0.108 [03]	0.070 [02]
2800 [1321]	0.98	0.95		0.99	0.06 [01]	0.36 [09]	0.85 [21]	0.69 [17]	0.113 [03]	0.078 [02]
2900 [1368]	0.98	0.96		1.00	0.06 [02]	0.39 [10]	0.91 [23]	0.74 [18]	0.117 [03]	0.085 [02]
3000 [1416]	0.99	0.97		1.00	0.07 [02]	0.43 [11]	0.96 [24]	0.79 [20]	0.122 [03]	0.093 [02]
3100 [1463]	1.00	0.99		1.00	0.07 [02]	0.47 [12]	1.02 [25]	0.86 [21]	0.127 [03]	0.100 [02]
3200 [1510]	1.00	1.00		1.01	0.07 [02]	0.51 [13]	1.08 [27]	0.92 [23]	0.132 [03]	0.108 [03]
3300 [1557]	1.01	1.02		1.01	0.08 [02]	0.54 [14]	1.15 [29]	0.99 [25]	0.137 [03]	0.115 [03]
3400 [1604]	1.01	1.03		1.01	0.08 [02]	0.58 [14]	1.21 [30]	1.05 [26]	0.142 [03]	0.123 [03]
3500 [1652]	1.02	1.05		1.01	0.09 [02]	0.62 [15]	1.29 [32]	1.09 [27]	0.147 [04]	0.131 [03]
3600 [1699]	1.02	1.06		1.02	0.09 [02]	0.66 [16]	1.36 [34]	1.13 [28]	0.152 [04]	0.138 [03]

*Multiply correction factor times gross performance data resulting sensible capacity cannot exceed total capacity.

[] Designates Metric Conversions

AIRFLOW PERFORMANCE— 8.5 TON [29.9 kW] — 60 Hz — DOWNFLOW

Air Flow CFM [L/s]	Model RACDYB102 Voltage 208/230, 460, 575 — 3 phase 60 Hz																							
	External Static Pressure—Inches of Water [kPa]																							
	0.1 [0.02] RPM W	0.2 [0.05] RPM W	0.3 [0.07] RPM W	0.4 [0.10] RPM W	0.5 [0.12] RPM W	0.6 [0.15] RPM W	0.7 [0.17] RPM W	0.8 [0.20] RPM W	0.9 [0.22] RPM W	1.0 [0.25] RPM W	1.1 [0.27] RPM W	1.2 [0.30] RPM W	1.3 [0.32] RPM W	1.4 [0.35] RPM W	1.5 [0.37] RPM W	1.6 [0.40] RPM W	1.7 [0.42] RPM W	1.8 [0.45] RPM W	1.9 [0.47] RPM W	2.0 [0.50] RPM W				
2700 [127.4]	—	—	—	—	612 955	646 998	680 1044	713 1092	745 1143	777 1196	809 1251	840 1309	871 1369	901 1432	930 1496	960 1564	988 1633	1016 1705	1044 1780	1071 1856				
2800 [132.1]	—	—	—	588 944	622 986	665 1031	688 1078	721 1128	753 1180	784 1234	815 1291	845 1350	875 1411	905 1475	934 1541	962 1610	990 1681	1018 1754	1045 1830	1071 1908				
2900 [136.8]	—	—	—	599 977	632 1021	665 1067	697 1116	729 1167	760 1220	791 1276	821 1334	851 1394	880 1457	909 1522	937 1590	965 1660	992 1732	1019 1806	1045 1883	1071 1963				
3000 [141.6]	—	—	—	—	610 1014	642 1060	674 1107	706 1157	737 1209	767 1264	798 1321	827 1380	856 1442	885 1506	913 1641	941 1641	974 1786	1002 1862	1046 1940	1071 2021				
3100 [146.3]	—	—	—	620 1055	652 1101	684 1150	715 1201	745 1255	775 1311	804 1369	833 1430	862 1493	890 1558	917 1626	944 1696	971 1769	997 1844	1022 1921	1047 2001	1072 2083				
3200 [151.0]	—	—	—	600 1053	631 1098	663 1146	693 1196	724 1249	753 1304	783 1361	811 1421	840 1483	867 1547	895 1614	922 1683	948 1755	974 1829	999 1905	1024 1983	1048 2064				
3300 [155.7]	—	—	—	580 1054	611 1099	642 1145	673 1195	703 1246	733 1300	762 1356	790 1415	818 1476	846 1539	873 1605	900 1673	926 1744	952 1816	977 1892	1001 1969	1026 2049				
3400 [160.4]	—	—	—	592 1102	623 1148	655 1196	683 1246	713 1299	742 1354	770 1412	798 1472	825 1534	852 1599	879 1666	905 1736	930 1807	955 1882	980 1958	1004 2027	1029 2118				
3500 [165.2]	—	—	—	605 1153	635 1200	665 1250	694 1301	723 1356	751 1412	779 1471	806 1532	833 1596	861 1662	885 1730	910 1801	935 1874	959 1950	983 2028	1006 2108	1029 2191				
3600 [169.9]	587 1161	617 1208	647 1256	676 1307	704 1360	732 1415	760 1473	787 1534	814 1596	840 1661	866 1729	891 1798	915 1870	939 1945	963 2022	986 2101	1009 2183	1031 2266	1053 2353	1074 2442				
3700 [174.6]	600 1218	630 1265	659 1315	687 1367	715 1422	742 1478	769 1538	796 1599	822 1663	847 1730	872 1798	897 1869	921 1943	944 2019	967 2097	990 2177	1012 2260	1033 2346	1054 2433	1075 2523				
3800 [179.3]	614 1278	642 1326	671 1378	698 1431	726 1487	752 1545	779 1606	805 1668	830 1734	855 1801	879 1871	903 1944	926 2019	949 2096	971 2175	993 2257	1014 2341	1035 2428	1056 2517	1075 2608				
3900 [184.0]	627 1341	655 1391	683 1443	710 1498	736 1555	763 1615	788 1677	813 1741	838 1808	862 1877	886 1948	909 2023	931 2098	954 2176	975 2257	996 2340	1017 2426	1037 2514	1057 2604	1076 2697				
4000 [188.8]	641 1407	668 1459	695 1512	721 1569	747 1627	773 1688	798 1751	822 1817	846 1885	870 1955	893 2028	915 2103	937 2181	959 2260	980 2342	1002 2427	1020 2514	1040 2603	1059 2695	1077 2789				
4100 [193.5]	654 1477	681 1530	707 1585	733 1642	758 1702	783 1764	807 1829	831 1896	854 1965	877 2037	899 2111	921 2187	943 2266	963 2347	984 2431	1004 2517	1023 2605	1042 2696	1060 2789	1078 2884				

NOTE: F-Drive left of the bold line, G-Drive right of the bold line, H-Drive right of second bold line.

Drive Package	F						G						H					
Motor H.P. [W]	2 [1491.4]						3 [2237.1]						3 [2237.1]					
Blower Sheave	AK79H						AK79H						AK79H					
Motor Sheave	1VP40						1VP50						1VP56					
Belt	A49						A50						A51					
Turns Open	0	1	2	3	4	5	0	1	2	3	4	5	0	1	2	3	4	5
RPM	816	772	726	678	632	580	1046	1003	959	917	872	826	1153	1114	1082	1040	998	956

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

[] Designates Metric Conversions

AIRFLOW PERFORMANCE—8.5 TON [29.9 kW] — 60 Hz — DOWNFLOW (CONTINUED)

Airflow	AIRFLOW CORRECTION FACTORS *				COMPONENT AIRFLOW RESISTANCE					
	CFM [L/s]	Total kBtu/h	Sensible kBtu/h	Power kW	Wet Coil	Vertical Economizer RA Damper Open	Concentric Diffuser RXRN-AEF2000 & Concentric Adapter RXMC-DD01 (Flush)	Concentric Diffuser RXRN-AED2000 & Concentric Adapter RXMC-DD01 (Drop)	Pressure Drop MERV 8	Pressure Drop MERV 13
Resistance — Inches of Water [kPa]										
2700 [1274]	0.97	0.93	0.99	0.99	0.07 [.02]	0.03 [.01]	0.80 [.20]	0.65 [.16]	0.108 [.03]	0.070 [.02]
2800 [1321]	0.98	0.94	0.99	0.99	0.07 [.02]	0.03 [.01]	0.85 [.21]	0.69 [.17]	0.113 [.03]	0.078 [.02]
2900 [1368]	0.98	0.96	0.99	0.99	0.08 [.02]	0.04 [.01]	0.91 [.23]	0.74 [.18]	0.117 [.03]	0.085 [.02]
3000 [1416]	0.99	0.97	1.00	1.00	0.08 [.02]	0.05 [.01]	0.96 [.24]	0.79 [.20]	0.122 [.03]	0.093 [.02]
3100 [1463]	0.99	0.99	1.00	1.00	0.09 [.02]	0.06 [.01]	1.02 [.25]	0.86 [.21]	0.127 [.03]	0.100 [.02]
3200 [1510]	1.00	1.00	1.00	1.00	0.10 [.02]	0.07 [.02]	1.08 [.27]	0.92 [.23]	0.132 [.03]	0.108 [.03]
3300 [1557]	1.01	1.01	1.00	1.00	0.10 [.03]	0.08 [.02]	1.15 [.29]	0.99 [.25]	0.137 [.03]	0.115 [.03]
3400 [1604]	1.01	1.03	1.01	1.01	0.11 [.03]	0.09 [.02]	1.21 [.30]	1.05 [.26]	0.142 [.03]	0.123 [.03]
3500 [1652]	1.02	1.04	1.01	1.01	0.11 [.03]	0.10 [.02]	1.29 [.32]	1.09 [.27]	0.147 [.04]	0.131 [.03]
3600 [1699]	1.02	1.06	1.01	1.01	0.12 [.03]	0.11 [.03]	1.36 [.34]	1.13 [.28]	0.152 [.04]	0.138 [.03]
3700 [1746]	1.03	1.07	1.02	1.02	0.13 [.03]	0.12 [.03]	1.43 [.36]	1.18 [.29]	0.157 [.04]	0.146 [.04]
3800 [1793]	1.03	1.09	1.02	1.02	0.13 [.03]	0.13 [.03]	1.50 [.37]	1.23 [.31]	0.162 [.04]	0.153 [.04]
3900 [1840]	1.04	1.10	1.02	1.02	0.14 [.04]	0.15 [.04]	1.59 [.40]	1.31 [.33]	0.167 [.04]	0.161 [.04]
4000 [1888]	1.05	1.12	1.02	1.02	0.14 [.04]	0.16 [.04]	1.68 [.42]	1.38 [.34]	0.171 [.04]	0.169 [.04]
4100 [1935]	1.05	1.13	1.03	1.03	0.15 [.04]	0.17 [.04]	1.74 [.43]	1.44 [.36]	0.176 [.04]	0.176 [.04]

*Multiply correction factor times gross performance data resulting sensible capacity cannot exceed total capacity.

[] Designates Metric Conversions

Airflow Performance

RACD Series

Air Flow CFM (L/s)	Model RACDYB102										Voltage 208/230, 460, 575 — 3 phase 60 Hz										External Static Pressure—Inches of Water [kPa]																			
	0.1 [0.02]		0.2 [0.05]		0.3 [0.07]		0.4 [0.10]		0.5 [0.12]		0.6 [0.15]		0.7 [0.17]		0.8 [0.20]		0.9 [0.22]		1.0 [0.25]		1.1 [0.27]		1.2 [0.30]		1.3 [0.32]		1.4 [0.35]		1.5 [0.37]		1.6 [0.40]		1.7 [0.42]		1.8 [0.45]		1.9 [0.47]		2.0 [0.50]	
	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W
2700 [1274]	—	—	—	—	—	—	—	—	612	975	645	1010	677	1046	708	1085	739	1127	770	1171	800	1217	829	1266	858	1317	886	1370	914	1426	941	1484	968	1544	995	1607	1020	1672	1046	1740
2800 [1321]	—	—	—	—	587	965	620	999	662	1035	683	1074	715	1116	745	1159	775	1205	805	1254	834	1304	862	1358	890	1413	918	1471	945	1531	971	1594	997	1659	1022	1727	1047	1796		
2900 [1368]	—	—	—	595	989	627	1026	659	1064	690	1105	721	1149	751	1195	781	1243	810	1294	839	1347	867	1402	894	1460	921	1520	948	1582	974	1647	1000	1714	1025	1784	1049	1856			
3000 [1416]	—	—	—	603	1017	635	1056	667	1101	728	1186	758	1234	787	1284	816	1337	844	1392	871	1450	899	1510	925	1572	952	1637	977	1704	1002	1773	1027	1845	1051	1919					
3100 [1463]	—	—	—	612	1049	643	1090	674	1133	705	1178	735	1226	764	1276	793	1329	821	1384	849	1441	876	1501	903	1563	930	1628	955	1694	981	1764	1005	1835	1030	1909	1053	1985			
3200 [1510]	—	—	—	589	1043	621	1084	652	1127	682	1172	712	1220	742	1270	771	1322	799	1377	827	1434	855	1494	882	1556	908	1620	934	1686	959	1755	984	1827	1009	1901	1032	1977			
3300 [1557]	—	—	—	598	1079	630	1122	660	1167	690	1215	720	1265	749	1317	778	1371	806	1428	833	1488	861	1549	887	1613	913	1680	939	1749	964	1820	1894	1012	1970	1036	2048				
3400 [1604]	—	—	—	608	1119	639	1164	669	1211	699	1261	728	1313	757	1367	785	1424	813	1483	840	1545	867	1609	893	1675	914	1743	943	1815	968	1888	992	1964	1016	2042	1039	2122			
3500 [1652]	—	—	587	1117	618	1162	648	1209	678	1258	707	1310	736	1364	765	1421	792	1480	820	1541	847	1605	873	1671	899	1740	924	1810	949	1884	973	1959	996	2037	1020	2117	1042	2200		
3600 [1699]	—	—	597	1161	628	1208	658	1257	687	1309	716	1363	745	1419	773	1478	800	1539	827	1603	853	1669	879	1737	905	1808	929	1881	954	1956	978	2034	1014	1024	2197	1046	2281			
3700 [1746]	—	—	608	1209	638	1258	668	1309	697	1363	725	1419	753	1478	781	1539	808	1602	834	1668	860	1736	886	1806	911	1879	935	1954	959	2032	983	2112	1006	2194	1028	2279				
3800 [1793]	588	1211	619	1260	648	1311	678	1365	706	1421	734	1479	762	1540	789	1603	816	1668	842	1736	868	1807	893	1879	917	1954	941	2032	965	2111	988	2193	1011	2278	1033	2365				
3900 [1840]	600	1263	630	1314	659	1367	688	1423	716	1441	744	1492	771	1605	798	1670	824	1738	850	1808	875	1881	900	1955	924	2033	948	2121	971	2194	994	2278	1016	2365						
4000 [1888]	611	1318	641	1372	670	1427	698	1485	726	1546	754	1608	781	1674	807	1741	833	1811	858	1883	883	1958	907	2035	931	2114	945	2196	977	2280	999	2367	1021	2455						
4100 [1935]	623	1377	652	1433	681	1491	709	1551	737	1613	764	1678	790	1746	816	1815	841	1887	866	1962	891	2039	915	2118	938	2199	961	2283	983	2370	1005	2458								
4200 [1982]	637	1440	667	1500	696	1559	724	1617	752	1677	783	1741	804	1761	829	1828	854	1903	880	1959	907	2046	931	2145	958	2230	981	2314	1004	2483	1027	2569								
4300 [2030]	651	1509	685	1570	710	1629	738	1700	766	1757	797	1765	818	1784	843	1842	869	1921	896	1980	917	2067	942	2171	996	2252	1017	2346	1038	2421	1061	2507								
4400 [2078]	665	1578	699	1639	724	1688	752	1749	781	1797	812	1776	831	1796	856	1855	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
4500 [2126]	679	1647	713	1708	739	1757	766	1789	794	1807	817	1787	832	1797	857	1856	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
4600 [2174]	693	1716	727	1777	754	1806	777	1799	799	1809	819	1789	832	1797	857	1856	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
4700 [2222]	707	1785	741	1846	769	1836	790	1799	799	1809	819	1789	832	1797	857	1856	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
4800 [2270]	721	1854	755	1915	784	1865	799	1799	799	1809	819	1789	832	1797	857	1856	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
4900 [2318]	735	1923	769	1984	799	1876	799	1799	799	1809	819	1789	832	1797	857	1856	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
5000 [2366]	749	1992	783	2053	819	1887	799	1799	799	1809	819	1789	832	1797	857	1856	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
5100 [2414]	763	2061	797	2122	839	1897	799	1799	799	1809	819	1789	832	1797	857	1856	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
5200 [2462]	777	2130	811	2191	859	1907	799	1799	799	1809	819	1789	832	1797	857	1856	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
5300 [2510]	791	2199	825	2260	879	1917	799	1799	799	1809	819	1789	832	1797	857	1856	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
5400 [2558]	805	2268	839	2329	899	1927	799	1799	799	1809	819	1789	832	1797	857	1856	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
5500 [2606]	819	2337	853	2398	919	1937	799	1799	799	1809	819	1789	832	1797	857	1856	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
5600 [2654]	833	2406	867	2467	939	1947	799	1799	799	1809	819	1789	832	1797	857	1856	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
5700 [2702]	847	2475	881	2536	959	1957	799	1799	799	1809	819	1789	832	1797	857	1856	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
5800 [2750]	861	2544	895	2605	979	1967	799	1799	799	1809	819	1789	832	1797	857	1856	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
5900 [2798]	875	2613	909	2674	999	1977	799	1799	799	1809	819	1789	832	1797	857	1856	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
6000 [2846]	889	2682	923	2743	1019	1987	799	1799	799	1809	819	1789	832	1797	857	1856	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
6100 [2894]	903	2751	937	2812	1039	1997	799	1799	799	1809	819	1789	832	1797	857	1856	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
6200 [2942]	917	2820	951	2881	1059	2007	799	1799	799	1809	819	1789	832	1797	857	1856	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
6300 [2990]	931	2889	965	2950	1079	2017	799	1799	799	1809	819	1789	832	1797	857	1856	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
6400 [3038]	945	2958	979	3019	1099	2027	799	1799	799	1809	819	1789	832	1797	857	1856	881	1929	901	1983	922	2070	947	2180	999	2237	1020	2319	1041	2404	1064	2451								
6500 [3086]	959	3027	993	3088	1119	2037	799	1799	799	1809	819	1789	832	1797	857																									

NOTE: F-Drive left of the bold line, G-Drive right of the bold line, H-Drive right of second bold line.

Drive Package	F					G					H				
Motor H.P. [W]	2 [1491.4]					3 [2237.1]					3 [2237.1]				
Blower Sheave	AK79H					AK79H					AK79H				
Motor Sheave	1VP40					1VP50					1VP56				
Belt	A49					A50					A51				
Turns Open	0	1	2	3	4	5	0	1	2	3	4	5			
RPM	822	775	726	684	631	587	1046	1002	959	915	872	827	1041	1000	956

NOTES: 1. Do not set motor sheave below minimum or maximum turns open shown.

2. Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure
3. Drive data shown is for horizontal airflow with dry coil. Add component resistance (below) to duct resistance to determine total External Static Pressure.
4. Factory sheave settings are shown in bold type.

[] Designates Metric Conversions

AIRFLOW PERFORMANCE—8.5 TON [29.9 kW] — 60 Hz — SIDEFLOW (CONTINUED)

Airflow	AIRFLOW CORRECTION FACTORS *				COMPONENT AIRFLOW RESISTANCE					
	CFM [L/s]	Total kbtu/h	Sensible kbtu/h	Power kW	Wet Coil	Horizontal Economizer RA Damper Open	Concentric Diffuser RXRN-AEF2000 & Concentric Adapter RXMC-DD01 (Flush)	Concentric Diffuser RXRN-AED2000 & Concentric Adapter RXMC-DD01 (Drop)	Pressure Drop MERV 8	Pressure Drop MERV 13
2700 [1274]	0.97	0.93	0.99	0.99	0.07 [.02]	0.32 [.08]	0.80 [.20]	0.65 [.16]	0.108 [.03]	0.070 [.02]
2800 [1321]	0.98	0.94	0.99	0.99	0.07 [.02]	0.36 [.09]	0.85 [.21]	0.69 [.17]	0.113 [.03]	0.078 [.02]
2900 [1368]	0.98	0.96	0.99	0.99	0.08 [.02]	0.39 [.10]	0.91 [.23]	0.74 [.18]	0.117 [.03]	0.085 [.02]
3000 [1416]	0.99	0.97	1.00	1.00	0.08 [.02]	0.43 [.11]	0.96 [.24]	0.79 [.20]	0.122 [.03]	0.093 [.02]
3100 [1463]	0.99	0.99	1.00	1.00	0.09 [.02]	0.47 [.12]	1.02 [.25]	0.86 [.21]	0.127 [.03]	0.100 [.02]
3200 [1510]	1.00	1.00	1.00	1.00	0.10 [.02]	0.51 [.13]	1.08 [.27]	0.92 [.23]	0.132 [.03]	0.108 [.03]
3300 [1557]	1.01	1.01	1.00	1.00	0.10 [.03]	0.54 [.14]	1.15 [.29]	0.99 [.25]	0.137 [.03]	0.115 [.03]
3400 [1604]	1.01	1.03	1.01	1.01	0.11 [.03]	0.58 [.14]	1.21 [.30]	1.05 [.26]	0.142 [.03]	0.123 [.03]
3500 [1652]	1.02	1.04	1.01	1.01	0.11 [.03]	0.62 [.15]	1.29 [.32]	1.09 [.27]	0.147 [.04]	0.131 [.03]
3600 [1699]	1.02	1.06	1.01	1.01	0.12 [.03]	0.66 [.16]	1.36 [.34]	1.13 [.28]	0.152 [.04]	0.138 [.03]
3700 [1746]	1.03	1.07	1.02	1.02	0.13 [.03]	0.70 [.17]	1.43 [.36]	1.18 [.29]	0.157 [.04]	0.146 [.04]
3800 [1793]	1.03	1.09	1.02	1.02	0.13 [.03]	0.74 [.18]	1.50 [.37]	1.23 [.31]	0.162 [.04]	0.153 [.04]
3900 [1840]	1.04	1.10	1.02	1.02	0.14 [.04]	0.77 [.19]	1.59 [.40]	1.31 [.33]	0.167 [.04]	0.161 [.04]
4000 [1888]	1.05	1.12	1.02	1.02	0.15 [.04]	0.81 [.20]	1.68 [.42]	1.38 [.34]	0.171 [.04]	0.169 [.04]
4100 [1935]	1.05	1.13	1.03	1.03	0.15 [.04]	0.85 [.21]	1.74 [.43]	1.44 [.36]	0.176 [.04]	0.176 [.04]

*Multiply correction factor times gross performance data resulting sensible capacity cannot exceed total capacity.

[] Designates Metric Conversions

AIRFLOW PERFORMANCE

Model RACDYB120		Voltage 208/230, 460, 575 — 3 phase 60 Hz										External Static Pressure—Inches of Water [kPa]																Air Flow CFM [L/s]													
		0.1 [0.2]		0.2 [0.25]		0.3 [0.37]		0.4 [0.4]		0.5 [0.512]		0.6 [0.615]		0.7 [0.717]		0.8 [0.820]		0.9 [0.922]		1.0 [1.025]		1.1 [1.127]		1.2 [1.30]		1.3 [1.32]				1.4 [1.35]		1.5 [1.37]		1.6 [1.40]		1.7 [1.42]		1.8 [1.45]		1.9 [1.47]	
RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W
33200	[1510]	561	781	589	838	615	897	642	959	669	1023	695	1090	722	1159	748	1230	774	1304	800	1380	825	1459	851	1540	876	1623	902	1709	927	1797	952	1888	977	1981	1001	2077	1026	2175	1050	2275
33300	[1557]	572	836	599	895	625	956	651	1020	678	1086	704	1154	730	1225	755	1298	781	1374	807	1452	832	1533	857	1616	882	1701	907	1789	932	1879	956	1972	981	2067	1005	2164	1029	2264	1053	2366
33400	[1604]	582	894	609	955	635	1018	661	1083	687	1151	712	1222	738	1295	763	1370	788	1448	814	1528	838	1610	863	1695	888	1782	912	1872	937	1964	961	2059	985	2155	1009	2255	1032	2357	1056	2461
33500	[1652]	593	955	619	1018	645	1083	670	1151	696	1221	721	1293	746	1368	771	1445	796	1524	821	1605	845	1691	870	1778	894	1867	918	1958	942	2052	966	2149	989	2248	1013	2349	1036	2453	1059	2559
33600	[1699]	604	1020	630	1085	655	1152	680	1221	705	1293	730	1367	755	1444	779	1523	804	1605	828	1688	852	1775	876	1863	900	1955	924	2048	947	2144	971	2242	994	2343	1017	2446	1040	2552	1063	2660
33700	[1746]	615	1088	640	1155	665	1224	690	1295	715	1369	739	1454	764	1524	788	1605	812	1688	836	1774	860	1862	883	1953	907	2045	930	2141	953	2239	976	2339	999	2442	1022	2547	1044	2655	1067	2765
33800	[1793]	627	1160	651	1228	676	1299	700	1372	725	1448	749	1526	773	1607	797	1690	820	1775	844	1863	867	1953	890	2045	913	2140	936	2238	959	2338	982	2440	1004	2544	1026	2652	1048	2761	1070	2873
33900	[1840]	638	1235	663	1305	687	1378	711	1453	735	1531	758	1611	782	1693	805	1778	829	1865	882	1955	875	2047	898	2141	920	2238	943	2338	965	2439	987	2544	1009	2650	1031	2759	1053	2870	1075	2984
34000	[1888]	650	1313	674	1385	698	1460	722	1537	745	1617	768	1699	791	1783	814	1870	837	1959	860	2050	883	2144	905	2241	927	2340	949	2441	971	2545	993	2651	1015	2759	1036	2870	1058	2983	1079	3099
34100	[1935]	662	1395	686	1469	709	1545	732	1625	755	1706	778	1800	801	1876	824	1965	846	2056	869	2149	891	2245	913	2344	935	2444	956	2548	978	2653	999	2761	1021	2872	1042	2984	1063	3100	1088	3217
34200	[1982]	675	1480	698	1556	721	1634	743	1715	766	1799	789	1884	811	1973	833	2063	855	2156	877	2252	899	2349	921	2450	942	2552	963	2658	985	2765	1006	2875	1027	2987	1047	3102	1068	3219	1088	3339
34300	[2029]	687	1568	710	1646	732	1726	755	1809	777	1895	799	1982	821	2072	843	2165	865	2260	886	2357	908	2457	929	2559	950	2664	971	2771	992	2880	1012	2992	1033	3106	1053	3223	1073	3342	1093	3464
34400	[2076]	700	1660	722	1740	744	1822	766	1907	788	1994	810	2084	832	2176	853	2270	874	2367	895	2466	916	2568	937	2672	958	2779	978	2888	999	2999	1019	3113	1039	3229	1059	3347	1079	3468	1098	3592
34500	[2123]	713	1755	735	1837	756	1921	778	2008	800	2097	821	2188	842	2282	863	2379	884	2477	905	2579	925	2682	946	2788	966	2897	986	3008	1006	3121	1026	3237	1046	3355	1065	3475	1085	3598	—	—
34600	[2171]	726	1853	747	1937	769	2023	790	2112	811	2203	832	2296	853	2392	873	2490	894	2591	914	2694	934	2800	955	2908	974	3018	994	3131	1014	3246	1033	3364	1052	3484	1072	3606	1091	3731	—	—
34700	[2218]	739	1955	760	2041	781	2129	802	2219	823	2312	843	2408	864	2505	884	2606	904	2708	924	2813	944	2921	964	3031	983	3143	1002	3258	1022	3375	1041	3494	1059	3616	1078	3741	1097	3867	—	—
34800	[2265]	753	2060	773	2148	794	2238	814	2330	835	2425	855	2522	875	2622	895	2724	915	2829	934	2936	953	3045	973	3157	992	3271	1011	3388	1030	3507	1048	3628	—	—	—	—	—	—	—	

NOTE: F-Drive left of the bold line, G-Drive right of the bold line, H-Drive right of second bold line.

Drive Package	F						G						H					
Motor H.P. [W]	2 [1491.4]						3 [2237.1]						3 [2237.1]					
Blower Sheave	AK79H						AK79H						AK79H					
Motor Sheave	1VP40						1VP50						1VP56					
Belt	A49						A50						A51					
Turns Open	0	1	2	3	4	5	0	1	2	3	4	5	6					
RPM	797	757	715	675	634	588	1029	991	950	908	866	824	783					

NOTES: 1. Do not set motor sheave below minimum or maximum turns open shown.

2. Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure
3. Drive data shown is for horizontal airflow with dry coil. Add component resistance (below) to duct resistance to determine total External Static Pressure.
4. Factory sheave settings are shown in **bold type**.

[] Designates Metric Conversions

AIRFLOW PERFORMANCE—10 TON [35.1 kW] — 60 Hz — DOWNFLOW (CONTINUED)

Airflow	AIRFLOW CORRECTION FACTORS *				COMPONENT AIRFLOW RESISTANCE					
	CFM [L/s]	Total kBtu/h	Sensible kBtu/h	Power kW	Wet Coil	Vertical Economizer RA Damper Open	Concentric Diffuser RXRN-AEF3415 & Concentric Adapter RXMC-DD02 (Flush)	Concentric Diffuser RXRN-AED3415 & Concentric Adapter RXMC-DD02 (Drop)	Pressure Drop MERV 8	Pressure Drop MERV 13
Resistance — Inches of Water [kPa]										
3200 [1510]	0.97	0.93	0.99	0.99	0.10 [.02]	0.07 [.02]	0.74 [.18]	0.56 [.14]	0.132 [.03]	0.108 [.03]
3300 [1557]	0.98	0.94	0.99	0.99	0.10 [.03]	0.08 [.02]	0.79 [.20]	0.59 [.15]	0.137 [.03]	0.115 [.03]
3400 [1604]	0.98	0.96	0.99	0.99	0.11 [.03]	0.09 [.02]	0.84 [.21]	0.62 [.15]	0.142 [.03]	0.123 [.03]
3500 [1652]	0.99	0.97	1.00	1.00	0.11 [.03]	0.10 [.02]	0.90 [.22]	0.66 [.16]	0.147 [.04]	0.131 [.03]
3600 [1699]	0.99	0.98	1.00	1.00	0.12 [.03]	0.11 [.03]	0.95 [.24]	0.69 [.17]	0.152 [.04]	0.138 [.03]
3700 [1746]	1.00	0.99	1.00	1.00	0.13 [.03]	0.12 [.03]	1.00 [.25]	0.73 [.18]	0.157 [.04]	0.146 [.04]
3800 [1793]	1.00	1.01	1.00	1.00	0.13 [.03]	0.13 [.03]	1.04 [.26]	0.76 [.19]	0.162 [.04]	0.153 [.04]
3900 [1840]	1.01	1.02	1.00	1.00	0.14 [.04]	0.15 [.04]	1.09 [.27]	0.80 [.20]	0.167 [.04]	0.161 [.04]
4000 [1888]	1.01	1.03	1.01	1.01	0.15 [.04]	0.16 [.04]	1.13 [.28]	0.84 [.21]	0.171 [.04]	0.169 [.04]
4100 [1935]	1.02	1.04	1.01	1.01	0.15 [.04]	0.17 [.04]	1.19 [.30]	0.88 [.22]	0.176 [.04]	0.176 [.04]
4200 [1982]	1.02	1.06	1.01	1.01	0.16 [.04]	0.19 [.05]	1.24 [.31]	0.92 [.23]	0.181 [.04]	0.184 [.05]
4300 [2029]	1.03	1.07	1.01	1.01	0.17 [.04]	0.20 [.05]	1.31 [.33]	0.97 [.24]	0.186 [.05]	0.191 [.05]
4400 [2076]	1.03	1.08	1.01	1.01	0.18 [.04]	0.21 [.05]	1.37 [.34]	1.02 [.25]	0.191 [.05]	0.199 [.05]
4500 [2123]	1.04	1.09	1.02	1.02	0.19 [.05]	0.23 [.06]	1.43 [.35]	1.07 [.27]	0.196 [.05]	0.207 [.05]
4600 [2171]	1.04	1.11	1.02	1.02	0.19 [.05]	0.24 [.06]	1.48 [.37]	1.11 [.28]	0.201 [.05]	0.214 [.05]
4700 [2218]	1.05	1.12	1.02	1.02	0.20 [.05]	0.26 [.06]	1.54 [.38]	1.15 [.29]	0.206 [.05]	0.222 [.05]
4800 [2265]	1.05	1.13	1.02	1.02	0.21 [.05]	0.28 [.07]	1.59 [.40]	1.19 [.30]	0.211 [.05]	0.229 [.06]

*Multiply correction factor times gross performance data resulting sensible capacity cannot exceed total capacity.

[] Designates Metric Conversions

AIRFLOW PERFORMANCE— 10 TON [35.1 kW] — 60 Hz — SIDEFLOW

Air Flow CFM [L/s]	Model RACDYB120 Voltage 208/230, 460, 575 — 3 phase 60 Hz																																							
	External Static Pressure—Inches of Water [kPa]																																							
	0.1 [0.02]	0.2 [0.05]	0.3 [0.07]	0.4 [0.10]	0.5 [0.12]	0.6 [0.15]	0.7 [0.17]	0.8 [0.20]	0.9 [0.22]	1.0 [0.25]	1.1 [0.27]	1.2 [0.30]	1.3 [0.32]	1.4 [0.35]	1.5 [0.37]	1.6 [0.40]	1.7 [0.42]	1.8 [0.45]	1.9 [0.47]	2.0 [0.50]																				
RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W																			
3200 [1510]	539	711	568	774	597	838	625	904	653	973	681	1043	709	1115	736	1189	763	1265	790	1343	816	1422	842	1504	868	1587	893	1673	918	1760	943	1849	968	1941	992	2034	1016	2129	1040	2226
3300 [1557]	549	761	578	826	606	892	634	960	662	1031	689	1103	717	1177	743	1253	770	1331	796	1410	822	1492	848	1576	873	1661	898	1748	923	1838	947	1929	972	2022	995	2117	1019	2214	1042	2313
3400 [1604]	560	815	588	882	616	950	644	1020	671	1092	698	1166	725	1242	751	1320	777	1400	803	1482	829	1565	854	1651	879	1738	904	1828	928	1919	952	2012	976	2107	999	2204	1022	2303	1045	2404
3500 [1652]	571	873	598	941	626	1011	653	1084	680	1158	707	1234	733	1312	759	1392	785	1473	810	1557	836	1643	860	1730	885	1819	909	1911	933	2004	957	2099	980	2196	1001	2293	1026	2396	1048	2499
3600 [1699]	582	934	609	1004	636	1076	663	1151	690	1227	716	1305	742	1385	767	1466	793	1570	818	1636	842	1723	867	1813	891	1904	915	1997	938	2093	962	2190	984	2289	1007	2295	1029	2424	1051	2597
3700 [1746]	593	999	620	1071	647	1145	673	1221	699	1299	725	1379	751	1461	776	1545	801	1631	825	1718	850	1808	874	1899	897	1992	921	2088	944	2185	967	2284	989	2385	1011	2488	1033	2592	1055	2699
3800 [1793]	604	1067	631	1141	657	1218	683	1296	709	1376	734	1458	760	1541	784	1627	809	1715	833	1804	857	1896	881	1989	904	2084	927	2182	950	2281	972	2382	994	2485	1016	2589	1037	2696	1058	2805
3900 [1840]	616	1139	642	1216	668	1294	694	1374	719	1456	744	1540	769	1625	793	1713	817	1803	841	1894	865	1988	888	2083	911	2180	933	2279	955	2380	977	2483	999	2588	1020	2695	1041	2804	1062	2914
4000 [1888]	628	1215	654	1293	679	1373	704	1455	729	1539	754	1625	778	1713	802	1803	826	1894	849	1988	870	2083	895	2180	917	2279	940	2381	962	2484	983	2588	1010	2695	1025	2804	1046	2915	1066	3027
4100 [1935]	640	1295	665	1375	690	1457	715	1541	740	1627	764	1714	788	1804	811	1896	835	1989	858	2085	880	2182	903	2281	925	2382	946	2486	968	2590	989	2697	1010	2806	1030	2917	1051	3029	1079	3144
4200 [1982]	652	1378	677	1460	702	1544	726	1630	750	1718	774	1807	798	1899	821	1933	844	2088	866	2186	888	2285	910	2386	932	2489	953	2594	974	2701	995	2810	1015	2921	1036	3033	1055	3148	1075	3264
4300 [2029]	665	1465	689	1549	713	1635	737	1723	761	1812	784	1904	807	1998	830	2093	853	2191	875	2290	897	2391	918	2494	939	2599	960	2706	981	2815	1001	2926	1021	3039	1041	3153	1060	3270	1080	3388
4400 [2076]	677	1555	701	1641	725	1729	749	1819	772	1911	795	2004	818	2100	840	2197	862	2297	884	2398	905	2501	926	2606	947	2713	968	2822	988	2933	1008	3046	1027	3161	1047	3277	1066	3396	1084	3516
4500 [2123]	690	1649	714	1737	737	1827	760	1919	783	2013	806	2108	828	2206	850	2305	872	2407	893	2510	914	2615	935	2722	955	2831	975	2942	995	3055	1014	3170	1034	3286	1053	3405	1071	3525	1089	3647
4600 [2171]	703	1747	727	1837	750	1929	772	2023	795	2118	817	2216	839	2315	860	2417	881	2520	902	2625	923	2732	943	2841	963	2952	983	3065	1002	3180	1021	3297	1040	3415	1059	3536	1077	3658	—	—
4700 [2218]	716	1849	739	1940	762	2034	784	2130	806	2228	828	2327	849	2429	871	2532	891	2637	912	2744	932	2853	952	2964	971	3077	991	3192	1010	3309	1028	3428	1047	3548	1065	3671	1083	3795	—	—
4800 [2265]	730	1954	752	2048	775	2143	796	2241	818	2341	839	2442	860	2545	881	2651	901	2758	922	2867	941	2978	961	3091	980	3206	999	3323	1017	3441	1036	3562	1054	3685	1071	3809	1089	3935	—	—

NOTE: F-Drive left of the bold line, G-Drive right of the bold line, H-Drive right of second bold line.

Drive Package	F					G					H							
Motor H.P. [W]	2 [1491.4]					3 [2237.1]					3 [2237.1]							
Blower Sheave	AK79H					AK79H					AK79H							
Motor Sheave	1VP40					1VP50					1VP56							
Belt	A49					A50					A51							
Turns Open	0	1	2	3	4	5	0	1	2	3	4	5	6					
RPM	798	757	716	676	633	590	1026	988	948	907	866	824	1093	1062	1026	988	950	908

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

[] Designates Metric Conversions

AIRFLOW PERFORMANCE—10 TON [35.1 kW] — 60 Hz — SIDEFLOW (CONTINUED)

Airflow	AIRFLOW CORRECTION FACTORS *			COMPONENT AIRFLOW RESISTANCE						
	CFM [L/s]	Total kBtu/h	Sensible kBtu/h	Power kW	Wet Coil	Horizontal Economizer RA Damper Open	Concentric Diffuser RXRN-AEF3415 & Concentric Adapter RXMC-DD02 (Flush)	Concentric Diffuser RXRN-AED3415 & Concentric Adapter RXMC-DD02 (Drop)	Pressure Drop MERV 8	Pressure Drop MERV 13
Resistance — Inches of Water [kPa]										
3200 [1510]	0.97	0.93	0.99	0.10 [02]	0.51 [13]	0.74 [18]	0.56 [14]	0.132 [03]	0.108 [03]	
3300 [1557]	0.98	0.94	0.99	0.10 [03]	0.54 [14]	0.79 [20]	0.59 [15]	0.137 [03]	0.115 [03]	
3400 [1604]	0.98	0.96	0.99	0.11 [03]	0.58 [14]	0.84 [21]	0.62 [15]	0.142 [03]	0.123 [03]	
3500 [1652]	0.99	0.97	1.00	0.11 [03]	0.62 [15]	0.90 [22]	0.66 [16]	0.147 [04]	0.131 [03]	
3600 [1699]	0.99	0.98	1.00	0.12 [03]	0.66 [16]	0.95 [24]	0.69 [17]	0.152 [04]	0.138 [03]	
3700 [1746]	1.00	0.99	1.00	0.13 [03]	0.70 [17]	1.00 [25]	0.73 [18]	0.157 [04]	0.146 [04]	
3800 [1793]	1.00	1.01	1.00	0.13 [03]	0.74 [18]	1.04 [26]	0.76 [19]	0.162 [04]	0.153 [04]	
3900 [1840]	1.01	1.02	1.00	0.14 [04]	0.77 [19]	1.09 [27]	0.80 [20]	0.167 [04]	0.161 [04]	
4000 [1888]	1.01	1.03	1.01	0.15 [04]	0.81 [20]	1.13 [28]	0.84 [21]	0.171 [04]	0.169 [04]	
4100 [1935]	1.02	1.04	1.01	0.15 [04]	0.85 [21]	1.19 [30]	0.88 [22]	0.176 [04]	0.176 [04]	
4200 [1982]	1.02	1.06	1.01	0.16 [04]	0.89 [22]	1.24 [31]	0.92 [23]	0.181 [04]	0.184 [05]	
4300 [2029]	1.03	1.07	1.01	0.17 [04]	0.93 [23]	1.31 [33]	0.97 [24]	0.186 [05]	0.191 [05]	
4400 [2076]	1.03	1.08	1.01	0.18 [04]	0.97 [24]	1.37 [34]	1.02 [25]	0.191 [05]	0.199 [05]	
4500 [2123]	1.04	1.09	1.02	0.19 [05]	1.01 [25]	1.43 [35]	1.07 [27]	0.196 [05]	0.207 [05]	
4600 [2171]	1.04	1.11	1.02	0.19 [05]	1.06 [26]	1.48 [37]	1.11 [28]	0.201 [05]	0.214 [05]	
4700 [2218]	1.05	1.12	1.02	0.20 [05]	1.10 [27]	1.54 [38]	1.15 [29]	0.206 [05]	0.222 [05]	
4800 [2265]	1.05	1.13	1.02	0.21 [05]	1.14 [28]	1.59 [40]	1.19 [30]	0.211 [05]	0.229 [06]	

*Multiply correction factor times gross performance data resulting sensible capacity cannot exceed total capacity.

[] Designates Metric Conversions

AIRFLOW PERFORMANCE— 12.5 TON [43.9 kW] — 60 Hz — DOWNFLOW

Air Flow CFM [L/s]	Model RACDYB150																								Voltage 208/230, 460, 575 — 3 phase 60 Hz																							
																									External Static Pressure—Inches of Water [kPa]																							
	0.1 [0.02] RPM	0.2 [0.05] W	0.3 [0.07] RPM	0.4 [0.10] W	0.5 [0.12] RPM	0.6 [0.15] W	0.7 [0.17] RPM	0.8 [0.20] W	0.9 [0.22] RPM	1.0 [0.25] W	1.1 [0.27] RPM	1.2 [0.30] W	1.3 [0.32] RPM	1.4 [0.35] W	1.5 [0.37] RPM	1.6 [0.40] W	1.7 [0.42] RPM	1.8 [0.45] W	1.9 [0.47] RPM	2.0 [0.50] W																												
4000 [1888]	—	—	—	—	771	1657	795	1721	818	1785	841	1849	863	1914	886	1979	908	2045	930	2110	952	2177	974	2244	995	2311	1016	2378	1037	2446	1058	2514	1078	2583	1099	2652	1119	2722										
4100 [1935]	—	—	—	—	784	1731	807	1797	829	1863	852	1929	874	1996	897	2063	918	2131	940	2199	962	2267	983	2336	1004	2406	1025	2475	1046	2545	1066	2616	1086	2687	1106	2758	1126	2829										
4200 [1982]	—	—	—	—	773	1742	796	1810	819	1878	841	1946	864	2014	886	2083	907	2153	929	2222	950	2292	972	2363	993	2434	1013	2505	1034	2577	1054	2649	1074	2722	1094	2795	1114	2868	1133	2942								
4300 [2029]	—	—	—	—	764	1755	786	1824	809	1893	831	1963	853	2033	875	2104	897	2175	919	2247	940	2319	961	2391	982	2464	1002	2537	1023	2610	1043	2684	1063	2758	1083	2833	1102	2908	1121	2984	1140	3060						
4400 [2076]	—	—	—	—	777	1839	800	1910	822	1982	844	2054	866	2126	887	2199	909	2272	930	2346	951	2420	971	2494	992	2569	1012	2644	1032	2720	1052	2796	1072	2872	1091	2949	1110	3026	1129	3104	1148	3182						
4500 [2123]	769	1855	791	1928	813	2002	835	2075	856	2149	878	2224	899	2299	920	2374	941	2450	962	2526	982	2603	1002	2680	1022	2757	1042	2835	1061	2913	1081	2991	1100	3070	1118	3149	1137	3229	1156	3309								
4600 [2171]	783	1947	805	2022	826	2098	848	2174	869	2250	890	2327	911	2404	932	2481	952	2559	973	2637	993	2716	1012	2795	1032	2874	1051	2954	1071	3034	1090	3115	1108	3196	1127	3278	1145	3359	1163	3442								
4700 [2218]	797	2044	818	2122	840	2199	861	2277	882	2355	903	2434	923	2513	944	2593	964	2673	984	2753	1003	2834	1023	2915	1042	2997	1061	3079	1080	3161	1099	3244	1117	3327	1135	3411	1153	3495	1171	3579								
4800 [2265]	811	2146	832	2226	854	2305	874	2385	895	2466	916	2547	936	2628	956	2710	976	2792	995	2874	1014	2957	1034	3040	1053	3124	1071	3208	1090	3293	1108	3378	1126	3463	1144	3549	1162	3635	1179	3721								
4900 [2312]	826	2253	847	2335	867	2416	888	2499	908	2581	928	2664	948	2748	968	2831	987	2916	1007	3000	1026	3085	1044	3171	1063	3256	1081	3343	1099	3429	1117	3516	1135	3604	1153	3691	1170	3780	1187	3868								
5000 [2359]	840	2365	861	2448	881	2532	901	2617	921	2701	941	2787	961	2872	980	2958	999	3044	1018	3131	1037	3218	1055	3306	1074	3394	1092	3482	1109	3571	1127	3660	1144	3749	1162	3839	1179	3930	1195	4020								
5100 [2407]	855	2482	875	2567	895	2653	915	2740	935	2827	954	2914	973	3002	992	3090	1011	3178	1030	3267	1048	3356	1066	3446	1084	3536	1102	3626	1119	3717	1137	3808	1154	3900	1171	3992	1187	4085	1204	4177								
5200 [2454]	870	2603	890	2691	909	2779	929	2868	948	2957	967	3046	986	3136	1005	3226	1023	3317	1042	3408	1060	3499	1077	3591	1095	3683	1112	3776	1129	3868	1146	3962	1163	4056	1180	4150	1196	4244	1212	4339								
5300 [2501]	885	2730	904	2820	924	2910	943	3001	962	3092	981	3183	999	3275	1017	3368	1036	3460	1053	3553	1071	3647	1089	3741	1106	3835	1123	3930	1140	4025	1156	4120	1173	4216	1189	4312	1205	4409	—	—								
5400 [2548]	900	2861	919	2953	938	3046	957	3139	976	3232	994	3325	1012	3419	1030	3514	1048	3609	1066	3704	1083	3800	1100	3896	1117	3992	1134	4089	1150	4186	1166	4284	1182	4382	1198	4480	1214	4579	—	—								
5500 [2595]	915	2998	934	3092	953	3187	971	3282	989	3377	1007	3473	1025	3569	1043	3665	1060	3762	1078	3860	1095	3957	1111	4055	1128	4154	1144	4253	1161	4352	1176	4452	1192	4552	1208	4653	—	—	—	—								
5600 [2643]	930	3139	949	3236	967	3332	985	3429	1003	3527	1021	3625	1039	3723	1056	3822	1073	3921	1090	4020	1107	4120	1123	4220	1139	4321	1155	4422	1171	4523	1187	4625	1202	4727	—	—	—	—	—	—								
5700 [2690]	946	3286	964	3384	982	3482	1000	3582	1017	3682	1035	3782	1052	3882	1069	3983	1086	4084	1102	4185	1119	4287	1135	4390	1151	4493	1166	4596	1182	4699	1197	4803	1212	4908	—	—	—	—	—	—								
5800 [2737]	961	3437	979	3537	997	3638	1014	3740	1032	3841	1049	3943	1066	4046	1082	4149	1099	4252	1115	4356	1131	4460	1147	4564	1162	4669	1178	4775	1193	4880	1208	4986	—	—	—	—	—	—	—	—								
5900 [2784]	977	3593	994	3696	1012	3799	1029	3902	1046	4006	1063	4110	1079	4215	1096	4320	1112	4425	1128	4531	1143	4637	1159	4744	1174	4851	1189	4958	1204	5066	—	—	—	—	—	—	—	—	—	—								
6000 [2831]	993	3754	1010	3859	1027	3964	1044	4070	1060	4176	1077	4282	1093	4389	1109	4496	1125	4604	1140	4711	1156	4820	1171	4929	1186	5038	1200	5147	1215	5257	—	—	—	—	—	—	—	—	—	—	—							

NOTE: F-Drive left of the bold line, G-Drive right of the bold line, H-Drive right of second bold line.

Drive Package	F												G											
Motor H.P. [W]	3 [2237.1]												5 [3728.5]											
Blower Sheave	AK71H												AK79H											
Motor Sheave	1VL44												1VP60											
Belt	A48												A52											
Turns Open	0	1	2	3	4	5	0	1	2	3	4	5	0	1	2	3	4	5	0	1	2	3	4	5
RPM	998	953	906	860	813	765	1210	1168	1125	1081	1037	993	1210	1168	1125	1081	1037	993	1210	1168	1125	1081	1037	993

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

[] Designates Metric Conversions

AIRFLOW PERFORMANCE — 12.5 TON [43.9 kW] — 60 Hz — DOWNFLOW (CONTINUED)

Airflow	AIRFLOW CORRECTION FACTORS *				COMPONENT AIRFLOW RESISTANCE					
	CFM [L/s]	Total kBTu/h	Sensible kBTu/h	Power kW	Wet Coil	Vertical Economizer RA Damper Open	Concentric Diffuser RXRN-AEF3618 & Concentric Adapter RXMC-DD03 (Flush)	Concentric Diffuser RXRN-AED3618 & Concentric Adapter RXMC-DD03 (Drop)	Pressure Drop MERV 8	Pressure Drop MERV 13
Resistance — Inches of Water [kPa]										
4000 [1888]	1.01	1.03	1.01	1.01	0.15 [.04]	0.16 [.04]	0.76 [.19]	0.68 [.17]	0.132 [.03]	0.108 [.03]
4100 [1935]	1.02	1.04	1.01	1.01	0.16 [.04]	0.17 [.04]	0.79 [.20]	0.72 [.18]	0.136 [.03]	0.114 [.03]
4200 [1982]	1.02	1.06	1.01	1.01	0.17 [.04]	0.19 [.05]	0.82 [.20]	0.75 [.19]	0.140 [.03]	0.120 [.03]
4300 [2029]	1.03	1.07	1.01	1.01	0.17 [.04]	0.20 [.05]	0.86 [.21]	0.79 [.20]	0.144 [.03]	0.126 [.03]
4400 [2076]	1.03	1.08	1.01	1.01	0.18 [.05]	0.21 [.05]	0.90 [.22]	0.83 [.21]	0.148 [.04]	0.132 [.03]
4500 [2123]	1.04	1.09	1.02	1.02	0.19 [.05]	0.23 [.06]	0.94 [.23]	0.86 [.21]	0.152 [.04]	0.138 [.03]
4600 [2171]	1.04	1.11	1.02	1.02	0.20 [.05]	0.24 [.06]	0.98 [.24]	0.89 [.22]	0.156 [.04]	0.145 [.04]
4700 [2218]	1.05	1.12	1.02	1.02	0.21 [.05]	0.26 [.06]	1.02 [.25]	0.94 [.23]	0.160 [.04]	0.151 [.04]
4800 [2265]	1.05	1.13	1.02	1.02	0.21 [.05]	0.28 [.07]	1.06 [.26]	0.98 [.24]	0.164 [.04]	0.157 [.04]
4900 [2312]	1.06	1.14	1.02	1.02	0.22 [.06]	0.29 [.07]	1.10 [.27]	1.01 [.25]	0.168 [.04]	0.163 [.04]
5000 [2359]	1.06	1.16	1.03	1.03	0.23 [.06]	0.31 [.08]	1.14 [.28]	1.04 [.26]	0.172 [.04]	0.169 [.04]
5100 [2407]	1.07	1.17	1.03	1.03	0.24 [.06]	0.33 [.08]	1.18 [.29]	1.07 [.27]	0.176 [.04]	0.175 [.04]
5200 [2454]	1.07	1.18	1.03	1.03	0.25 [.06]	0.35 [.09]	1.22 [.30]	1.10 [.27]	0.180 [.04]	0.182 [.04]
5300 [2501]	1.08	1.19	1.03	1.03	0.26 [.06]	0.36 [.09]	1.27 [.32]	1.15 [.29]	0.184 [.05]	0.188 [.05]
5400 [2548]	1.08	1.21	1.03	1.03	0.27 [.07]	0.38 [.09]	1.33 [.33]	1.20 [.30]	0.188 [.05]	0.194 [.05]
5500 [2595]	1.09	1.22	1.04	1.04	0.28 [.07]	0.40 [.10]	1.37 [.34]	1.25 [.31]	0.192 [.05]	0.200 [.05]
5600 [2643]	1.09	1.23	1.04	1.04	0.29 [.07]	0.42 [.10]	1.42 [.35]	1.30 [.32]	0.196 [.05]	0.206 [.05]
5700 [2690]	1.10	1.24	1.04	1.04	0.30 [.07]	0.44 [.11]	1.47 [.37]	1.34 [.33]	0.200 [.05]	0.212 [.05]
5800 [2737]	1.10	1.26	1.04	1.04	0.31 [.08]	0.46 [.11]	1.52 [.38]	1.38 [.34]	0.204 [.05]	0.219 [.05]
5900 [2784]	1.10	1.27	1.05	1.05	0.32 [.08]	0.48 [.12]	1.56 [.39]	1.42 [.35]	0.208 [.05]	0.225 [.05]
6000 [2831]	1.11	1.28	1.05	1.05	0.33 [.08]	0.51 [.13]	1.60 [.40]	1.45 [.36]	0.212 [.05]	0.231 [.06]

*Multiply correction factor times gross performance data resulting sensible capacity cannot exceed total capacity.

[] Designates Metric Conversions

AIRFLOW PERFORMANCE— 12.5 TON [43.9 kW] — 60 Hz — SIDEFLOW

Air Flow CFM [L/s]	Model RACDYB150 Voltage 208/230, 460, 575 — 3 phase 60 Hz																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	External Static Pressure—Inches of Water [kPa]																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	0.1 [0.02] RPM	0.2 [0.05] RPM	0.3 [0.07] RPM	0.4 [0.10] RPM	0.5 [0.12] RPM	0.6 [0.15] RPM	0.7 [0.17] RPM	0.8 [0.20] RPM	0.9 [0.22] RPM	1.0 [0.25] RPM	1.1 [0.27] RPM	1.2 [0.30] RPM	1.3 [0.32] RPM	1.4 [0.35] RPM	1.5 [0.37] RPM	1.6 [0.40] RPM	1.7 [0.42] RPM	1.8 [0.45] RPM	1.9 [0.47] RPM	2.0 [0.50] RPM	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W

NOTE: F-Drive left of the bold line, G-Drive right of the bold line, H-Drive right of second bold line.

Drive Package	F												G											
Motor H.P. [W]	3 [2237.1]												5 [3728.5]											
Blower Sheave	AK71H												AK79H											
Motor Sheave	1VL44												1VP60											
Belt	A48												A52											
Turns Open	0	1	2	3	4	5							0	1	2	3	4	5						
RPM	994	952	905	858	811	765							1209	1168	1126	1082	1037	993						

AIRFLOW PERFORMANCE—12.5 TON [43.9 kW] — 60 Hz — SIDEFLOW (CONTINUED)

Airflow	AIRFLOW CORRECTION FACTORS *				COMPONENT AIRFLOW RESISTANCE					
	CFM [L/s]	Total kBtu/h	Sensible kBtu/h	Power kW	Wet Coil	Horizontal Economizer RA Damper Open	Concentric Diffuser RXRN-AEF3618 & Concentric Adapter RXMC-DD03 (Flush)	Concentric Diffuser RXRN-AED3618 & Concentric Adapter RXMC-DD03 (Drop)	Pressure Drop MERV 8	Pressure Drop MERV 13
4000 [1888]	1.01	1.03	1.01	1.01	0.15 [.04]	0.73 [.18]	0.76 [.19]	0.68 [.17]	0.132 [.03]	0.108 [.03]
4100 [1935]	1.02	1.04	1.01	1.01	0.16 [.04]	0.78 [.19]	0.79 [.20]	0.72 [.18]	0.136 [.03]	0.114 [.03]
4200 [1982]	1.02	1.06	1.01	1.01	0.17 [.04]	0.83 [.21]	0.82 [.20]	0.75 [.19]	0.140 [.03]	0.120 [.03]
4300 [2029]	1.03	1.07	1.01	1.01	0.17 [.04]	0.88 [.22]	0.86 [.21]	0.79 [.20]	0.144 [.03]	0.126 [.03]
4400 [2076]	1.03	1.08	1.01	1.01	0.18 [.05]	0.93 [.23]	0.90 [.22]	0.83 [.21]	0.148 [.04]	0.132 [.03]
4500 [2123]	1.04	1.09	1.02	1.02	0.19 [.05]	0.98 [.24]	0.94 [.23]	0.86 [.21]	0.152 [.04]	0.138 [.03]
4600 [2171]	1.04	1.11	1.02	1.02	0.20 [.05]	1.03 [.26]	0.98 [.24]	0.89 [.22]	0.156 [.04]	0.145 [.04]
4700 [2218]	1.05	1.12	1.02	1.02	0.21 [.05]	1.07 [.27]	1.02 [.25]	0.94 [.23]	0.160 [.04]	0.151 [.04]
4800 [2265]	1.05	1.13	1.02	1.02	0.21 [.05]	1.12 [.28]	1.06 [.26]	0.98 [.24]	0.164 [.04]	0.157 [.04]
4900 [2312]	1.06	1.14	1.02	1.02	0.22 [.06]	1.17 [.29]	1.10 [.27]	1.01 [.25]	0.168 [.04]	0.163 [.04]
5000 [2359]	1.06	1.16	1.03	1.03	0.23 [.06]	1.21 [.30]	1.14 [.28]	1.04 [.26]	0.172 [.04]	0.169 [.04]
5100 [2407]	1.07	1.17	1.03	1.03	0.24 [.06]	1.26 [.31]	1.18 [.29]	1.07 [.27]	0.176 [.04]	0.175 [.04]
5200 [2454]	1.07	1.18	1.03	1.03	0.25 [.06]	1.30 [.32]	1.22 [.30]	1.10 [.27]	0.180 [.04]	0.182 [.04]
5300 [2501]	1.08	1.19	1.03	1.03	0.26 [.06]	1.35 [.34]	1.27 [.32]	1.15 [.29]	0.184 [.05]	0.188 [.05]
5400 [2548]	1.08	1.21	1.03	1.03	0.27 [.07]	1.39 [.35]	1.33 [.33]	1.20 [.30]	0.188 [.05]	0.194 [.05]
5500 [2595]	1.09	1.22	1.04	1.04	0.28 [.07]	1.44 [.36]	1.37 [.34]	1.25 [.31]	0.192 [.05]	0.200 [.05]
5600 [2643]	1.09	1.23	1.04	1.04	0.29 [.07]	1.48 [.37]	1.42 [.35]	1.30 [.32]	0.196 [.05]	0.206 [.05]
5700 [2690]	1.10	1.24	1.04	1.04	0.30 [.07]	1.52 [.38]	1.47 [.37]	1.34 [.33]	0.200 [.05]	0.212 [.05]
5800 [2737]	1.10	1.26	1.04	1.04	0.31 [.08]	1.57 [.39]	1.52 [.38]	1.38 [.34]	0.204 [.05]	0.219 [.05]
5900 [2784]	1.10	1.27	1.05	1.05	0.32 [.08]	1.61 [.40]	1.56 [.39]	1.42 [.35]	0.208 [.05]	0.225 [.05]
6000 [2831]	1.11	1.28	1.05	1.05	0.33 [.08]	1.65 [.41]	1.60 [.40]	1.45 [.36]	0.212 [.05]	0.231 [.06]

*Multiply correction factor times gross performance data resulting sensible capacity cannot exceed total capacity.

[] Designates Metric Conversions

ELECTRICAL DATA – RACDYB SERIES							
		090ACF	090ACG 090ACH	090ADF	090ADG 090ADH	090AYF	090AYG 090AYH
Unit Information	Unit Operating Voltage Range	187-253	187-253	414-506	414-506	518-633	518-633
	Volts	208/230	208/230	460	460	575	575
	Phase	3	3	3	3	3	3
	Hz	60	60	60	60	60	60
	Minimum Circuit Ampacity	41/41	44/44	18	20	15	16
	Minimum Circuit Ampacity with Power Exhaust	46/46	49/49	21	23	17	18
	Minimum Overcurrent Protection Device Size	50/50	50/50	25	25	20	20
	Minimum Overcurrent Protection Device Size with Power Exhaust	60/60	60/60	25	25	20	20
	Maximum Overcurrent Protection Device Size	60/60	60/60	25	30	20	20
	Maximum Overcurrent Protection Device Size with Power Exhaust	70/70	70/70	30	30	25	25
Compressor Motor	No.	1	1	1	1	1	1
	Volts	208/230	208/230	460	460	575	575
	Phase	3	3	3	3	3	3
	Amps (RLA), Comp. 1	25.2	25.2	10.6	10.6	8.6	8.6
	Amps (LRA), Comp. 1	178.5	178.5	79.1	79.1	65.0	65.0
Condenser Motor	No.	2	2	2	2	2	2
	Volts	208/230	208/230	460	460	575	575
	Phase	1	1	1	1	1	1
	HP	1/5	1/5	1/5	1/5	1/5	1/5
	Amps (FLA, each)	1.2	1.2	0.8	0.8	0.6	0.6
	Amps (LRA, each)	2.3	2.3	1.4	1.4	1.1	1.1
Evaporator Fan	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)	6.2	9.2	3.0	4.6	2.4	3.5
	Amps (LRA, each)	47.0	74.5	24.0	38.1	19.0	30.0

ELECTRICAL DATA – RACDYB SERIES							
		102ACF	102ACG 102ACH	102ADF	102ADG 102ADH	102AYF	102AYG 102AYH
Unit Information	Unit Operating Voltage Range	187-253	187-253	414-506	414-506	518-633	518-633
	Volts	208/230	208/230	460	460	575	575
	Phase	3	3	3	3	3	3
	Hz	60	60	60	60	60	60
	Minimum Circuit Ampacity	43/43	46/46	21	22	16	17
	Minimum Circuit Ampacity with Power Exhaust	48/48	51/51	23	25	18	19
	Minimum Overcurrent Protection Device Size	50/50	60/60	25	25	20	20
	Minimum Overcurrent Protection Device Size with Power Exhaust	60/60	60/60	30	30	20	25
	Maximum Overcurrent Protection Device Size	60/60	70/70	30	30	20	25
	Maximum Overcurrent Protection Device Size with Power Exhaust	70/70	70/70	35	35	25	25
Compressor Motor	No.	1	1	1	1	1	1
	Volts	208/230	208/230	460	460	575	575
	Phase	3	3	3	3	3	3
	Amps (RLA), Comp. 1	26.8	26.8	12.5	12.5	9.4	9.4
	Amps (LRA), Comp. 1	190.7	190.7	100.2	100.2	65.0	65.0
Condenser Motor	No.	2	2	2	2	2	2
	Volts	208/230	208/230	460	460	575	575
	Phase	1	1	1	1	1	1
	HP	1/5	1/5	1/5	1/5	1/5	1/5
	Amps (FLA, each)	1.2	1.2	0.8	0.8	0.6	0.6
	Amps (LRA, each)	2.3	2.3	1.4	1.4	1.1	1.1
Evaporator Fan	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)	6.2	9.2	3.0	4.6	2.4	3.5
	Amps (LRA, each)	47.0	74.5	24.0	38.1	19.0	30.0

ELECTRICAL DATA – RACDYB SERIES							
		120ACF	120ACG 120ACH	120ADF	120ADG 120ADH	120AYF	120AYG 120AYH
Unit Information	Unit Operating Voltage Range	187-253	187-253	414-506	414-506	518-633	518-633
	Volts	208/230	208/230	460	460	575	575
	Phase	3	3	3	3	3	3
	Hz	60	60	60	60	60	60
	Minimum Circuit Ampacity	45/45	48/48	24	25	19	20
	Minimum Circuit Ampacity with Power Exhaust	50/50	53/53	26	28	21	22
	Minimum Overcurrent Protection Device Size	60/60	60/60	30	30	25	25
	Minimum Overcurrent Protection Device Size with Power Exhaust	60/60	60/60	30	35	25	25
	Maximum Overcurrent Protection Device Size	70/70	70/70	35	35	30	30
	Maximum Overcurrent Protection Device Size with Power Exhaust	70/70	70/70	35	40	30	30
Compressor Motor	No.	1	1	1	1	1	1
	Volts	208/230	208/230	460	460	575	575
	Phase	3	3	3	3	3	3
	Amps (RLA), Comp. 1	26.5	26.5	14.0	14.0	11.5	11.5
	Amps (LRA), Comp. 1	255.0	255.0	123.0	123.0	93.7	93.7
Condenser Motor	No.	2	2	2	2	2	2
	Volts	208/230	208/230	460	460	575	575
	Phase	1	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/3	1/3
	Amps (FLA, each)	2.4	2.4	1.4	1.4	1.0	1.0
	Amps (LRA, each)	4.7	4.7	2.4	2.4	4.7	4.7
Evaporator Fan	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)	6.2	9.2	3.0	4.6	2.4	3.5
	Amps (LRA, each)	47.0	74.5	24.0	38.1	19.0	30.0

ELECTRICAL DATA – RACDYB SERIES							
		150ACF	150ACG	150ADF	150ADG	150AYF	150AYG
Unit Information	Unit Operating Voltage Range	187-253	187-253	414-506	414-506	518-633	518-633
	Volts	208/230	208/230	460	460	575	575
	Phase	3	3	3	3	3	3
	Hz	60	60	60	60	60	60
	Minimum Circuit Ampacity	68/68	75/75	29	31	23	24
	Minimum Circuit Ampacity with Power Exhaust	74/74	80/80	32	34	25	26
	Minimum Overcurrent Protection Device Size	80/80	90/90	35	35	25	30
	Minimum Overcurrent Protection Device Size with Power Exhaust	80/80	90/90	35	40	30	30
	Maximum Overcurrent Protection Device Size	90/90	90/90	35	35	25	30
	Maximum Overcurrent Protection Device Size with Power Exhaust	90/90	100/100	40	40	30	30
Compressor Motor	No.	2	2	2	2	2	2
	Volts	208/230	208/230	460	460	575	575
	Phase	3	3	3	3	3	3
	Amps (RLA), Comp. 1	22.4	22.4	8.8	8.8	7.2	7.2
	Amps (LRA), Comp. 1	166.2	166.2	74.6	74.6	54.0	54.0
	Amps (RLA), Comp. 2	22.4	22.4	8.8	8.8	7.2	7.2
	Amps (LRA), Comp. 2	166.2	166.2	74.6	74.6	54.0	54.0
Condenser Motor	No.	2	2	2	2	2	2
	Volts	208/230	208/230	460	460	575	575
	Phase	1	1	1	1	1	1
	HP	3/4	3/4	3/4	3/4	3/4	3/4
	Amps (FLA, each)	4.2	4.2	2.3	2.3	1.2	1.2
	Amps (LRA, each)	11.5	11.5	5.9	5.9	4.2	4.2
Evaporator Fan	No.	1	1	1	1	1	1
	Volts	208/230	208/230	460	460	575	575
	Phase	3	3	3	3	3	3
	HP	3	5	3	5	3	5
	Amps (FLA, each)	9.2	15.7	4.6	6.3	3.5	5.1
	Amps (LRA, each)	74.5	95.0	38.1	47.5	30.0	38.0

208/230 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION													
Separate Power Supply For Both Unit and Heater Kit													
Single Power Supply For Both Unit and Heater Kit													
Unit Model No. RACDYB	Heater Kit			Air Conditioner				Heater Kit		Air Conditioner			
	Model No. RXJJ-	Rated Heater KW @ 208/230V	FLA	Unit Min. Ckt. Ampacity	Unit Min. Ckt. Ampacity with Optional Powered Exhaust	Max. Fuse or Ckt. Size	Max. Fuse or Ckt. Size With Optional Powered Exhaust	Heater Kit Min. Ckt. Ampacity	Heater Kit Max Fuse or Ckt. Bkr. Ampacity	Air Cond. Min. Ckt. Ampacity	Air Cond. Min. Ckt. Ampacity with Optional Powered Exhaust	Air Cond. Max Fuse or Ckt. Bkt. Size	Air Cond. Max Ckt. Ampacity with Optional Powered Exhaust
090ACF	None	—/—	—/—	41/41	46/46	60/60	70/70	—	—	41/41	46/46	60/60	70/70
	DD10CP	7.4/9.9	20.6/23.8	41/41	46/46	60/60	70/70	26/30	30/30	41/41	46/46	60/60	70/70
	DD15CP	10.8/14.4	30.0/34.6	46/51	52/58	60/60	70/70	38/44	40/45	41/41	46/46	60/60	70/70
	DD20CP	14.8/19.8	41.2/47.6	60/68	66/74	60/70	70/80	52/60	60/60	41/41	46/46	60/60	70/70
	DD30CP	21.6/28.8	60.0/69.3	83/95	90/102	90/100	90/110	75/87	80/90	41/41	46/46	60/60	70/70
	DD40CP	29.7/39.6	82.4/95.2	111/127	118/134	125/150	125/150	103/119	110/125	41/41	46/46	60/60	70/70
090ACG	None	—/—	—/—	44/44	49/49	60/60	70/70	—	—	44/44	49/49	60/60	70/70
	DD10CP	7.4/9.9	20.6/23.8	44/44	49/49	60/60	70/70	26/30	30/30	44/44	49/49	60/60	70/70
	DD15CP	10.8/14.4	30.0/34.6	49/55	56/62	60/60	70/70	38/44	40/45	44/44	49/49	60/60	70/70
	DD20CP	14.8/19.8	41.2/47.6	63/71	70/78	70/80	70/80	52/60	60/60	44/44	49/49	60/60	70/70
	DD30CP	21.6/28.8	60.0/69.3	87/99	94/105	90/100	100/110	75/87	80/90	44/44	49/49	60/60	70/70
	DD40CP	29.7/39.6	82.4/95.2	115/131	122/138	125/150	125/150	103/119	110/125	44/44	49/49	60/60	70/70
090ACH	None	—/—	—/—	44/44	49/49	60/60	70/70	—	—	44/44	49/49	60/60	70/70
	DD10CP	7.4/9.9	20.6/23.8	44/44	49/49	60/60	70/70	26/30	30/30	44/44	49/49	60/60	70/70
	DD15CP	10.8/14.4	30.0/34.6	49/55	56/62	60/60	70/70	38/44	40/45	44/44	49/49	60/60	70/70
	DD20CP	14.8/19.8	41.2/47.6	63/71	70/78	70/80	70/80	52/60	60/60	44/44	49/49	60/60	70/70
	DD30CP	21.6/28.8	60.0/69.3	87/99	94/105	90/100	100/110	75/87	80/90	44/44	49/49	60/60	70/70
	DD40CP	29.7/39.6	82.4/95.2	115/131	122/138	125/150	125/150	103/119	110/125	44/44	49/49	60/60	70/70

460 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION													
Single Power Supply For Both Unit and Heater Kit							Separate Power Supply For Both Unit and Heater Kit						
Unit Model No. RACDYB	Heater Kit			Air Conditioner			Heater Kit		Air Conditioner				Air Cond. Max Ckt. Ampacity with Optional Exhaust
	Model No. RXJJ-	Rated Heater kW @ 460V	FLA	Unit Min. Ckt. Ampacity	Unit Min. Ckt. Ampacity with Optional Powered Exhaust	Max. Fuse or Ckt. Bkr. Size	Heater Kit Min. Ckt. Ampacity	Heater Kit Max Fuse or Ckt. Bkr. Ampacity	Air Cond. Min. Ckt. Ampacity with Optional Powered Exhaust	Air Cond. Max Fuse or Ckt. Bkr. Size	Air Cond. Min. Ckt. Ampacity with Optional Powered Exhaust	Air Cond. Max Fuse or Ckt. Bkr. Size	
090ADF	NONE	—	—	18	21	25	—	—	18	25	21	25	30
	DD10DNV	9.9	11.9	19	22	25	15	15	18	25	21	25	30
	DD15DNV	14.4	17.3	26	29	30	22	25	18	25	21	25	30
	DD20DNV	19.8	23.8	34	37	35	30	30	18	25	21	25	30
	DD30DNV	28.8	34.6	47	51	50	44	45	18	25	21	25	30
	DD40DNV	39.6	47.6	64	67	70	60	60	18	25	21	25	30
090ADG	NONE	—	—	20	23	30	—	—	20	30	23	30	30
	DD10DNV	9.9	11.9	21	24	30	15	15	20	30	23	30	30
	DD15DNV	14.4	17.3	28	31	30	22	25	20	30	23	30	30
	DD20DNV	19.8	23.8	36	39	40	30	30	20	30	23	30	30
	DD30DNV	28.8	34.6	49	53	50	44	45	20	30	23	30	30
	DD40DNV	39.6	47.6	66	69	70	60	60	20	30	23	30	30
090ADH	NONE	—	—	20	23	30	—	—	20	30	23	30	30
	DD10DNV	9.9	11.9	21	24	30	15	15	20	30	23	30	30
	DD15DNV	14.4	17.3	28	31	30	22	25	20	30	23	30	30
	DD20DNV	19.8	23.8	36	39	40	30	30	20	30	23	30	30
	DD30DNV	28.8	34.6	49	53	50	44	45	20	30	23	30	30
	DD40DNV	39.6	47.6	66	69	70	60	60	20	30	23	30	30

575 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION													
Single Power Supply For Both Unit and Heater Kit							Separate Power Supply For Both Unit and Heater Kit						
Unit Model No. RACDYB	Heater Kit			Air Conditioner				Heater Kit		Air Conditioner			
	Model No. RXJJ-	Rated Heater kW @ 575V	FLA	Unit Min. Ckt. Ampacity	Unit Min. Ckt. Ampacity with Optional Powered Exhaust	Max. Fuse or Ckt. Bkr. Size	Max. Fuse or Ckt. Bkr. Size With Optional Powered Exhaust	Heater Kit Min. Ckt. Ampacity	Heater Kit Max Fuse or Ckt. Bkr. Ampacity	Air Cond. Min. Ckt. Ampacity	Air Cond. Min. Ckt. Ampacity with Optional Powered Exhaust	Air Cond. Max Fuse or Ckt. Bkr. Size	Air Cond. Max Ckt. Ampacity with Optional Powered Exhaust
090AYF	NONE	—	—	15	17	20	25	—	—	15	17	20	25
	DD10Y	10.0	9.6	16	18	20	25	13	15	15	17	20	25
	DD15Y	15.0	14.4	22	24	25	25	19	20	15	17	20	25
	DD20Y	20.0	19.3	28	30	30	30	25	25	15	17	20	25
	DD30Y	30.0	28.9	40	42	40	45	37	40	15	17	20	25
	DD40Y	40.0	38.5	52	54	60	60	49	50	15	17	20	25
090AYG	NONE	—	—	16	18	20	25	—	—	16	18	20	25
	DD10Y	10.0	9.6	17	20	20	25	13	15	16	18	20	25
	DD15Y	15.0	14.4	23	26	25	30	19	20	16	18	20	25
	DD20Y	20.0	19.3	29	32	30	35	25	25	16	18	20	25
	DD30Y	30.0	28.9	41	44	45	45	37	40	16	18	20	25
	DD40Y	40.0	38.5	53	56	60	60	49	50	16	18	20	25
090AYH	NONE	—	—	16	18	20	25	—	—	16	18	20	25
	DD10Y	10.0	9.6	17	20	20	25	13	15	16	18	20	25
	DD15Y	15.0	14.4	23	26	25	30	19	20	16	18	20	25
	DD20Y	20.0	19.3	29	32	30	35	25	25	16	18	20	25
	DD30Y	30.0	28.9	41	44	45	45	37	40	16	18	20	25
	DD40Y	40.0	38.5	53	56	60	60	49	50	16	18	20	25

208/230 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION													
Single Power Supply For Both Unit and Heater Kit							Separate Power Supply For Both Unit and Heater Kit						
Unit Model No. RACDYB	Heater Kit			Air Conditioner			Heater Kit		Air Conditioner				
	Model No. RXJJ-	Rated Heater kW @ 208/230V	FLA	Unit Min. Ckt. Ampacity	Unit Min. Ckt. Ampacity with Optional Powered Exhaust	Max. Fuse or Ckt. Size	Heater Kit Min. Ckt. Ampacity	Heater Kit Max Fuse or Ckt. Bkr. Ampacity	Air Cond. Min. Ckt. Ampacity with Optional Powered Exhaust	Air Cond. Max Fuse or Ckt. Bkr. Size	Air Cond. Min. Ckt. Ampacity with Optional Powered Exhaust	Air Cond. Max Fuse or Ckt. Bkr. Size	Air Cond. Max Ckt. Ampacity with Optional Powered Exhaust
102ACF	NONE	—/—	—/—	43/43	48/48	60/60	—	—	43/43	60/60	48/48	60/60	70/70
	DD10CP	7.4/9.9	20.6/23.8	43/43	48/48	60/60	26/30	30/30	43/43	60/60	48/48	60/60	70/70
	DD15CP	10.8/14.4	30.0/34.6	46/51	52/58	60/60	38/44	40/45	43/43	60/60	48/48	60/60	70/70
	DD20CP	14.8/19.8	41.2/47.6	60/68	66/74	60/70	52/60	60/60	43/43	60/60	48/48	60/60	70/70
	DD30CP	21.6/28.8	60.0/69.3	83/95	90/102	90/100	75/87	80/90	43/43	60/60	48/48	60/60	70/70
102ACG	DD40CP	29.7/39.6	82.4/95.2	111/127	118/134	125/150	103/119	110/125	43/43	60/60	48/48	60/60	70/70
	NONE	—/—	—/—	46/46	51/51	70/70	—	—	46/46	70/70	51/51	70/70	70/70
	DD10CP	7.4/9.9	20.6/23.8	46/46	51/51	70/70	26/30	30/30	46/46	70/70	51/51	70/70	70/70
	DD15CP	10.8/14.4	30.0/34.6	49/55	56/62	70/70	38/44	40/45	46/46	70/70	51/51	70/70	70/70
	DD20CP	14.8/19.8	41.2/47.6	63/71	70/78	70/80	52/60	60/60	46/46	70/70	51/51	70/70	70/70
102ACH	DD30CP	21.6/28.8	60.0/69.3	87/99	94/105	90/100	75/87	80/90	46/46	70/70	51/51	70/70	70/70
	DD40CP	29.7/39.6	82.4/95.2	115/131	122/138	125/150	103/119	110/125	46/46	70/70	51/51	70/70	70/70
	NONE	—/—	—/—	46/46	51/51	70/70	—	—	46/46	70/70	51/51	70/70	70/70
	DD10CP	7.4/9.9	20.6/23.8	46/46	51/51	70/70	26/30	30/30	46/46	70/70	51/51	70/70	70/70
	DD15CP	10.8/14.4	30.0/34.6	49/55	56/62	70/70	38/44	40/45	46/46	70/70	51/51	70/70	70/70
102ACH	DD20CP	14.8/19.8	41.2/47.6	63/71	70/78	70/80	52/60	60/60	46/46	70/70	51/51	70/70	70/70
	DD30CP	21.6/28.8	60.0/69.3	87/99	94/105	90/100	75/87	80/90	46/46	70/70	51/51	70/70	70/70
	DD40CP	29.7/39.6	82.4/95.2	115/131	122/138	125/150	103/119	110/125	46/46	70/70	51/51	70/70	70/70

460 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION													
Single Power Supply For Both Unit and Heater Kit							Separate Power Supply For Both Unit and Heater Kit						
Unit Model No. RACDYB	Heater Kit			Air Conditioner				Heater Kit		Air Conditioner			
	Model No. RXJJ-	Rated kW Heater kW @ 460V	FLA	Unit Min. Ckt. Ampacity	Unit Min. Ckt. Ampacity with Optional Powered Exhaust	Max. Fuse or Ckt. Bkr. Size	Max. Fuse or Ckt. Bkr. Size With Optional Powered Exhaust	Heater Kit Min. Ckt. Ampacity	Heater Kit Max Fuse or Ckt. Bkr. Ampacity	Air Cond. Min. Ckt. Ampacity	Air Cond. Min. Ckt. Ampacity with Optional Powered Exhaust	Air Cond. Max Fuse or Ckt. Bkr. Size	Air Cond. Max Ckt. Ampacity with Optional Powered Exhaust
102ADF	NONE	—	—	21	23	30	35	—	—	21	23	30	35
	DD10DNV	9.9	11.9	21	23	30	35	15	15	21	23	30	35
	DD15DNV	14.4	17.3	26	29	30	35	22	25	21	23	30	35
	DD20DNV	19.8	23.8	34	37	35	40	30	30	21	23	30	35
	DD30DNV	28.8	34.6	47	51	50	60	44	45	21	23	30	35
	DD40DNV	39.6	47.6	64	67	70	70	60	60	21	23	30	35
102ADG	NONE	—	—	22	25	30	35	—	—	22	25	30	35
	DD10DNV	9.9	11.9	22	25	30	35	15	15	22	25	30	35
	DD15DNV	14.4	17.3	28	31	30	35	22	25	22	25	30	35
	DD20DNV	19.8	23.8	36	39	40	40	30	30	22	25	30	35
	DD30DNV	28.8	34.6	49	53	50	60	44	45	22	25	30	35
	DD40DNV	39.6	47.6	66	69	70	70	60	60	22	25	30	35
102ADH	NONE	—	—	22	25	30	35	—	—	22	25	30	35
	DD10DNV	9.9	11.9	22	25	30	35	15	15	22	25	30	35
	DD15DNV	14.4	17.3	28	31	30	35	22	25	22	25	30	35
	DD20DNV	19.8	23.8	36	39	40	40	30	30	22	25	30	35
	DD30DNV	28.8	34.6	49	53	50	60	44	45	22	25	30	35
	DD40DNV	39.6	47.6	66	69	70	70	60	60	22	25	30	35

575 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION													
Separate Power Supply For Both Unit and Heater Kit													
Single Power Supply For Both Unit and Heater Kit													
Unit Model No. RACDYB	Heater Kit			Air Conditioner			Heater Kit		Air Conditioner				
	Model No. RXJJ-	Rated Heater kW @ 575V	FLA	Unit Min. Ckt. Ampacity	Unit Min. Ckt. Ampacity with Optional Powered Exhaust	Max. Fuse or Ckt. Bkr. Size	Heater Kit Min. Ckt. Ampacity	Heater Kit Max Fuse or Ckt. Bkr. Ampacity	Air Cond. Min. Ckt. Ampacity	Air Cond. Max Fuse or Ckt. Bkr. Size	Air Cond. Min. Ckt. Ampacity with Optional Powered Exhaust	Air Cond. Max Ckt. Ampacity with Optional Powered Exhaust	
102AYF	NONE	—	—	16	18	20	—	—	16	20	18	25	
	DD10Y	10.0	9.6	16	18	20	13	15	16	20	18	25	
	DD15Y	15.0	14.4	22	24	25	19	20	16	20	18	25	
	DD20Y	20.0	19.3	28	30	30	25	25	16	20	18	25	
	DD30Y	30.0	28.9	40	42	40	37	40	16	20	18	25	
DD40Y	40.0	38.5	52	54	60	49	50	16	20	18	25		
102AYG	NONE	—	—	17	19	25	—	—	17	25	19	25	
	DD10Y	10.0	9.6	17	20	25	13	15	17	25	19	25	
	DD15Y	15.0	14.4	23	26	25	19	20	17	25	19	25	
	DD20Y	20.0	19.3	29	32	30	25	25	17	25	19	25	
	DD30Y	30.0	28.9	41	44	45	37	40	17	25	19	25	
DD40Y	40.0	38.5	53	56	60	49	50	17	25	19	25		
102AYH	NONE	—	—	17	19	25	—	—	17	25	19	25	
	DD10Y	10.0	9.6	17	20	25	13	15	17	25	19	25	
	DD15Y	15.0	14.4	23	26	25	19	20	17	25	19	25	
	DD20Y	20.0	19.3	29	32	30	25	25	17	25	19	25	
	DD30Y	30.0	28.9	41	44	45	37	40	17	25	19	25	
DD40Y	40.0	38.5	53	56	60	49	50	17	25	19	25		

208/230 VOLT, THREE PHASE, 60 HZ, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION													
Single Power Supply For Both Unit and Heater Kit							Separate Power Supply For Both Unit and Heater Kit						
Unit Model No. RACDYB	Heater Kit			Air Conditioner				Heater Kit		Air Conditioner			
	Model No. RXJJ-	Rated Heater kW @ 208/230V	FLA	Unit Min. Ckt. Ampacity	Unit Min. Ckt. Ampacity with Optional Powered Exhaust	Max. Fuse or Ckt. Size	Max. Fuse or Ckt. Bkr. Size With Optional Powered Exhaust	Heater Kit Min. Ckt. Ampacity	Heater Kit Max Fuse or Ckt. Bkr. Ampacity	Air Cond. Min. Ckt. Ampacity with Optional Powered Exhaust	Air Cond. Max Fuse or Ckt. Bkr. Size	Air Cond. Max Ckt. Ampacity with Optional Powered Exhaust	
120ACF	NONE	—/—	—/—	45/45	50/50	70/70	70/70	—	—	45/45	70/70	70/70	
	DD10CP	7.4/9.9	20.6/23.8	45/45	50/50	70/70	70/70	26/30	30/30	45/45	70/70	70/70	
	DD15CP	10.8/14.4	30.0/34.6	46/51	52/58	70/70	70/70	38/44	40/45	45/45	70/70	70/70	
	DD20CP	14.8/19.8	41.2/47.6	60/68	66/74	70/70	70/80	52/60	60/60	45/45	70/70	70/70	
	DD30CP	21.6/28.8	60.0/69.3	83/95	90/102	90/100	90/110	75/87	80/90	45/45	70/70	70/70	
	DD40CP	29.7/39.6	82.4/95.2	111/127	118/134	125/150	125/150	103/119	110/125	45/45	70/70	70/70	
120ACG	NONE	—/—	—/—	48/48	53/53	70/70	70/70	—	—	48/48	70/70	70/70	
	DD10CP	7.4/9.9	20.6/23.8	48/48	53/53	70/70	70/70	26/30	30/30	48/48	70/70	70/70	
	DD15CP	10.8/14.4	30.0/34.6	49/55	56/62	70/70	70/70	38/44	40/45	48/48	70/70	70/70	
	DD20CP	14.8/19.8	41.2/47.6	63/71	70/78	70/80	70/80	52/60	60/60	48/48	70/70	70/70	
	DD30CP	21.6/28.8	60.0/69.3	87/99	94/105	90/100	100/110	75/87	80/90	48/48	70/70	70/70	
	DD40CP	29.7/39.6	82.4/95.2	115/131	122/138	125/150	125/150	103/119	110/125	48/48	70/70	70/70	
120ACH	NONE	—/—	—/—	48/48	53/53	70/70	70/70	—	—	48/48	70/70	70/70	
	DD10CP	7.4/9.9	20.6/23.8	48/48	53/53	70/70	70/70	26/30	30/30	48/48	70/70	70/70	
	DD15CP	10.8/14.4	30.0/34.6	49/55	56/62	70/70	70/70	38/44	40/45	48/48	70/70	70/70	
	DD20CP	14.8/19.8	41.2/47.6	63/71	70/78	70/80	70/80	52/60	60/60	48/48	70/70	70/70	
	DD30CP	21.6/28.8	60.0/69.3	87/99	94/105	90/100	100/110	75/87	80/90	48/48	70/70	70/70	
	DD40CP	29.7/39.6	82.4/95.2	115/131	122/138	125/150	125/150	103/119	110/125	48/48	70/70	70/70	

460 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION												
Single Power Supply For Both Unit and Heater Kit						Separate Power Supply For Both Unit and Heater Kit						
Unit Model No. RACDYB	Heater Kit			Air Conditioner			Heater Kit		Air Conditioner			
	Model No. RXJJ-	Rated Heater kW @ 460V	FLA	Unit Min. Ckt. Ampacity	Unit Min. Ckt. Ampacity with Optional Powered Exhaust	Max. Fuse or Ckt. Bkr. Size	Heater Kit Min. Ckt. Ampacity	Heater Kit Max Fuse or Ckt. Bkr. Ampacity	Air Cond. Min. Ckt. Ampacity with Optional Powered Exhaust	Air Cond. Max Fuse or Ckt. Bkr. Size	Air Cond. Max Ckt. Ampacity with Optional Powered Exhaust	
120ADF	NONE	—	—	24	26	35	—	—	24	35	35	
	DD10DNV	9.9	11.9	24	26	35	15	15	24	35	35	
	DD15DNV	14.4	17.3	26	29	35	22	25	24	35	35	
	DD20DNV	19.8	23.8	34	37	35	30	30	24	35	35	
	DD30DNV	28.8	34.6	47	51	50	44	45	24	35	35	
	DD40DNV	39.6	47.6	64	67	70	60	60	24	35	35	
120ADG	NONE	—	—	25	28	35	—	—	25	35	40	
	DD10DNV	9.9	11.9	25	28	35	15	15	25	35	40	
	DD15DNV	14.4	17.3	28	31	35	22	25	25	35	40	
	DD20DNV	19.8	23.8	36	39	40	30	30	25	35	40	
	DD30DNV	28.8	34.6	49	53	50	44	45	25	35	40	
	DD40DNV	39.6	47.6	66	69	70	60	60	25	35	40	
120ADH	NONE	—	—	25	28	35	—	—	25	35	40	
	DD10DNV	9.9	11.9	25	28	35	15	15	25	35	40	
	DD15DNV	14.4	17.3	28	31	35	22	25	25	35	40	
	DD20DNV	19.8	23.8	36	39	40	30	30	25	35	40	
	DD30DNV	28.8	34.6	49	53	50	44	45	25	35	40	
	DD40DNV	39.6	47.6	66	69	70	60	60	25	35	40	

575 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION													
Single Power Supply For Both Unit and Heater Kit							Separate Power Supply For Both Unit and Heater Kit						
Unit Model No. RACDYB	Heater Kit			Air Conditioner				Heater Kit		Air Conditioner			
	Model No. RXJJ-	Rated kW Heater kW @ 575V	FLA	Unit Min. Ckt. Ampacity	Unit Min. Ckt. Ampacity with Optional Powered Exhaust	Max. Fuse or Ckt. Bkr. Size	Max. Fuse or Ckt. Bkr. Size With Optional Powered Exhaust	Heater Kit Min. Ckt. Ampacity	Heater Kit Max Fuse or Ckt. Bkr. Ampacity	Air Cond. Min. Ckt. Ampacity	Air Cond. Min. Ckt. Ampacity with Optional Powered Exhaust	Air Cond. Max Fuse or Ckt. Bkr. Size	Air Cond. Max Ckt. Ampacity with Optional Powered Exhaust
120AYF	NONE	—	—	19	21	30	30	—	—	19	21	30	30
	DD10Y	10.0	9.6	19	21	30	30	13	15	19	21	30	30
	DD15Y	15.0	14.4	22	24	30	30	19	20	19	21	30	30
	DD20Y	20.0	19.3	28	30	30	30	25	25	19	21	30	30
	DD30Y	30.0	28.9	40	42	40	45	37	40	19	21	30	30
120AYG	DD40Y	40.0	38.5	52	54	60	60	49	50	19	21	30	30
	NONE	—	—	20	22	30	30	—	—	20	22	30	30
	DD10Y	10.0	9.6	20	22	30	30	13	15	20	22	30	30
	DD15Y	15.0	14.4	23	26	30	30	19	20	20	22	30	30
	DD20Y	20.0	19.3	29	32	30	35	25	25	20	22	30	30
120AYH	DD30Y	30.0	28.9	41	44	45	45	37	40	20	22	30	30
	DD40Y	40.0	38.5	53	56	60	60	49	50	20	22	30	30
	NONE	—	—	20	22	30	30	—	—	20	22	30	30
	DD10Y	10.0	9.6	20	22	30	30	13	15	20	22	30	30
	DD15Y	15.0	14.4	23	26	30	30	19	20	20	22	30	30
120AYI	DD20Y	20.0	19.3	29	32	30	35	25	25	20	22	30	30
	DD30Y	30.0	28.9	41	44	45	45	37	40	20	22	30	30
	DD40Y	40.0	38.5	53	56	60	60	49	50	20	22	30	30
	NONE	—	—	20	22	30	30	—	—	20	22	30	30
	DD10Y	10.0	9.6	20	22	30	30	13	15	20	22	30	30
120AYJ	DD15Y	15.0	14.4	23	26	30	30	19	20	20	22	30	30
	DD20Y	20.0	19.3	29	32	30	35	25	25	20	22	30	30
	DD30Y	30.0	28.9	41	44	45	45	37	40	20	22	30	30
	DD40Y	40.0	38.5	53	56	60	60	49	50	20	22	30	30
	NONE	—	—	20	22	30	30	—	—	20	22	30	30

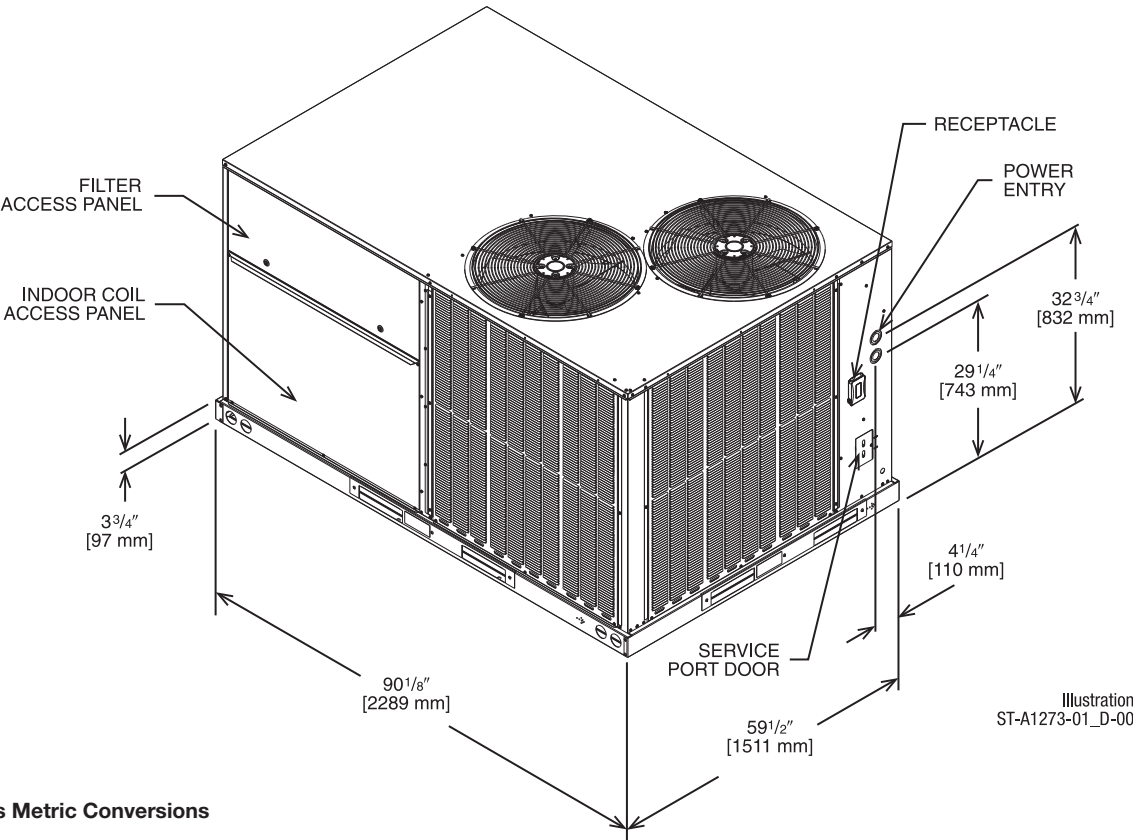
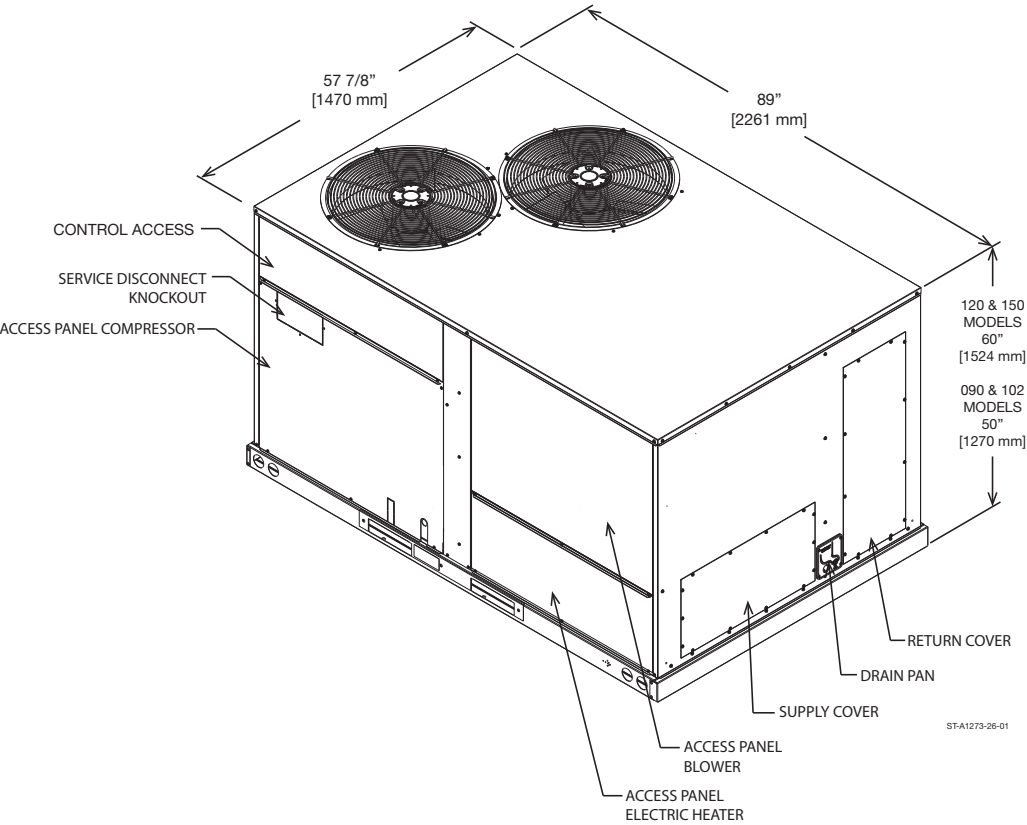
208/230 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION												
Single Power Supply For Both Unit and Heater Kit						Separate Power Supply For Both Unit and Heater Kit						
Unit Model No. RACDYB	Heater Kit			Air Conditioner			Heater Kit		Air Conditioner			
	Model No. RXJJ-	Rated Heater kW @ 208/230V	FLA	Unit Min. Ckt. Ampacity	Unit Min. Ckt. Ampacity with Optional Powered Exhaust	Max. Fuse or Ckt. Bkr. Size	Heater Kit Min. Ckt. Ampacity	Heater Kit Max Fuse or Ckt. Bkr. Ampacity	Air Cond. Min. Ckt. Ampacity with Optional Powered Exhaust	Air Cond. Max Fuse or Ckt. Bkr. Size	Air Cond. Min. Ckt. Ampacity with Optional Powered Exhaust	Air Cond. Max Ckt. Ampacity with Optional Powered Exhaust
150ACF	NONE	—/—	—/—	68/68	74/74	90/90	—	—	68/68	90/90	74/74	90/90
	DD10CP	7.4/9.9	20.6/23.8	68/68	74/74	90/90	26/30	30/30	68/68	90/90	74/74	90/90
	DD15CP	10.8/14.4	30.0/34.6	68/68	74/74	90/90	38/44	40/45	68/68	90/90	74/74	90/90
	DD20CP	14.8/19.8	41.2/47.6	68/71	74/78	90/90	52/60	60/60	68/68	90/90	74/74	90/90
	DD30CP	21.6/28.8	60.0/69.3	87/99	94/105	90/100	75/87	80/90	68/68	90/90	74/74	90/90
150ACG	DD40CP	29.7/39.6	82.4/95.2	115/131	122/138	125/150	103/119	110/125	68/68	90/90	74/74	90/90
	NONE	—/—	—/—	75/75	80/80	90/90	—	—	75/75	90/90	80/80	100/100
	DD10CP	7.4/9.9	20.6/23.8	75/75	80/80	90/90	26/30	30/30	75/75	90/90	80/80	100/100
	DD15CP	10.8/14.4	30.0/34.6	75/75	80/80	90/90	38/44	40/45	75/75	90/90	80/80	100/100
	DD20CP	14.8/19.8	41.2/47.6	75/80	80/86	90/90	52/60	60/60	75/75	90/90	80/80	100/100
	DD30CP	21.6/28.8	60.0/69.3	95/107	102/113	100/110	75/87	80/90	75/75	90/90	80/80	100/100
	DD40CP	29.7/39.6	82.4/95.2	123/139	130/146	125/150	103/119	110/125	75/75	90/90	80/80	100/100

460 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION												
Single Power Supply For Both Unit and Heater Kit						Separate Power Supply For Both Unit and Heater Kit						
Unit Model No. RACDYB	Heater Kit			Air Conditioner			Heater Kit		Air Conditioner			
	Model No. RXJJ-	Rated Heater kW @ 460V	FLA	Unit Min. Ckt. Ampacity	Unit Min. Ckt. Ampacity with Optional Powered Exhaust	Max. Fuse or Ckt. Bkr. Size	Heater Kit Min. Ckt. Ampacity	Heater Kit Max Fuse or Ckt. Bkr. Ampacity	Air Cond. Min. Ckt. Ampacity with Optional Powered Exhaust	Air Cond. Max Fuse or Ckt. Bkr. Size	Air Cond. Min. Ckt. Ampacity with Optional Powered Exhaust	Air Cond. Max Ckt. Ampacity with Optional Powered Exhaust
150ADF	NONE	—	—	29	32	35	—	—	29	35	32	40
	DD10DNV	9.9	11.9	29	32	35	15	15	29	35	32	40
	DD15DNV	14.4	17.3	29	32	35	22	25	29	35	32	40
	DD20DNV	19.8	23.8	36	39	40	30	30	29	35	32	40
	DD30DNV	28.8	34.6	49	53	50	44	45	29	35	32	40
150ADG	DD40DNV	39.6	47.6	66	69	70	60	60	29	35	32	40
	NONE	—	—	31	34	35	—	—	31	35	34	40
	DD10DNV	9.9	11.9	31	34	35	15	15	31	35	34	40
	DD15DNV	14.4	17.3	31	34	35	22	25	31	35	34	40
	DD20DNV	19.8	23.8	38	41	40	30	30	31	35	34	40
	DD30DNV	28.8	34.6	52	55	60	44	45	31	35	34	40
	DD40DNV	39.6	47.6	68	71	70	60	60	31	35	34	40

575 VOLT, THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION												
Separate Power Supply For Both Unit and Heater Kit												
Single Power Supply For Both Unit and Heater Kit						Separate Power Supply For Both Unit and Heater Kit						
Unit Model No. RACDYB	Heater Kit			Air Conditioner			Heater Kit		Air Conditioner			
	Model No. RXJJ-	Rated Heater kW @ 575V	FLA	Unit Min. Ckt. Ampacity	Unit Min. Ckt. Ampacity with Optional Powered Exhaust	Max. Fuse or Ckt. Bkr. Size	Max. Fuse or Ckt. Bkr. Size With Optional Powered Exhaust	Heater Kit Min.Ckt. Ampacity	Heater Kit Max Fuse or Ckt. Bkr. Ampacity	Air Cond. Min. Ckt. Ampacity with Optional Powered Exhaust	Air Cond. Max Fuse or Ckt. Bkr. Size	Air Cond. Max Ckt. Ampacity with Optional Powered Exhaust
150AYF	NONE	—	—	23	25	25	30	—	—	25	25	30
	DD10Y	10.0	9.6	23	25	25	30	13	15	25	25	30
	DD15Y	15.0	14.4	23	26	25	30	19	20	25	25	30
	DD20Y	20.0	19.3	29	32	30	35	25	25	25	25	30
	DD30Y	30.0	28.9	41	44	45	45	37	40	25	25	30
DD40Y	40.0	38.5	53	56	60	60	49	50	25	25	30	
150AYG	NONE	—	—	24	26	30	30	—	—	26	30	30
	DD10Y	10.0	9.6	24	26	30	30	13	15	26	30	30
	DD15Y	15.0	14.4	25	28	30	30	19	20	26	30	30
	DD20Y	20.0	19.3	31	34	35	35	25	25	26	30	30
	DD30Y	30.0	28.9	43	46	45	50	37	40	26	30	30
DD40Y	40.0	38.5	55	58	60	60	49	50	26	30	30	

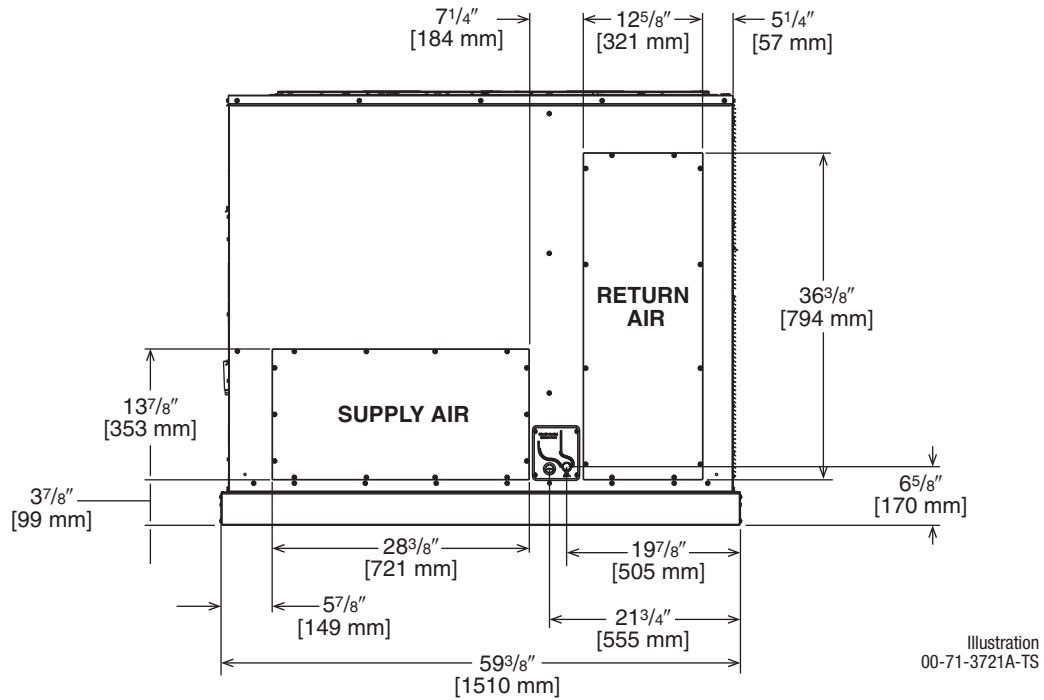
A2L REFRIGERANT INSTALLATION SAFETY DATA

		RACDYB090	RACDYB102	RACDYB120	RACDYB150	RACDYB090 w/HumidiDry	RACDYB102 w/HumidiDry	RACDYB120 w/HumidiDry	RACDYB150 w/HumidiDry
Refrigerant Charge weight (oz)		88.0	113.6	171.2	168.0	120.0	152.0	210.4	214.4
Minimum circulation airflow, Qmin (cfm)		149	192	290	284	203	257	356	363
Installed Altitude (Ft. Above Sea Level)	Altitude Adjustment Factor	Minimum Total Conditioned Room Area, T _{Amin} (Sq. Ft.)							
0	1.000	82	106	160	157	112	142	197	201
1000	1.025	85	109	164	161	115	146	202	206
2000	1.051	87	112	169	165	118	150	207	211
3000	1.078	89	115	173	170	121	154	213	217
4000	1.107	91	118	178	174	124	158	218	222
5000	1.138	94	121	183	179	128	162	224	229
6000	1.170	96	125	188	184	132	167	231	235
6500	1.187	98	126	190	187	133	169	234	239

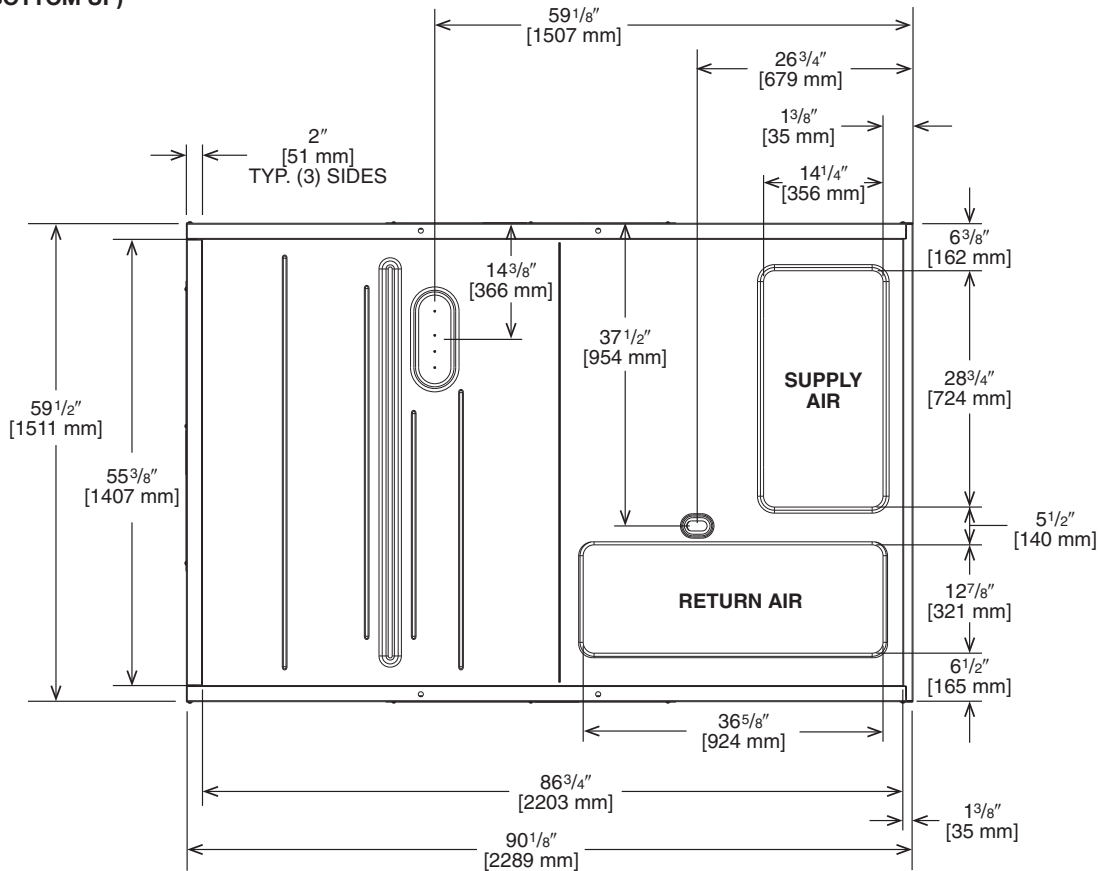


[] Designates Metric Conversions

SUPPLY AND RETURN DIMENSIONS FOR HORIZONTAL APPLICATIONS



SUPPLY AND RETURN DIMENSIONS FOR DOWNFLOW APPLICATIONS (VIEW FROM BOTTOM UP)



[] Designates Metric Conversions

WEIGHTS

Capacity Tons [kW]	Corner Weights by Percentage			
	A	B	C	D
7.5-12.5 [21.1-44.0]	26%	34%	17%	23%

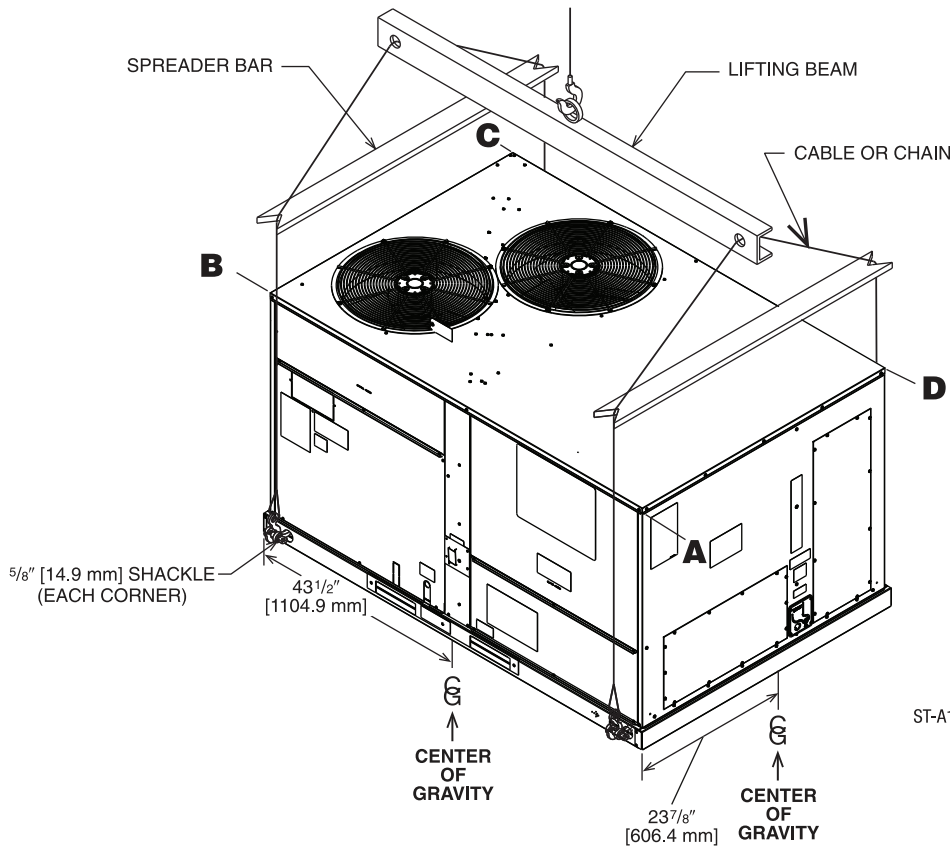


Illustration
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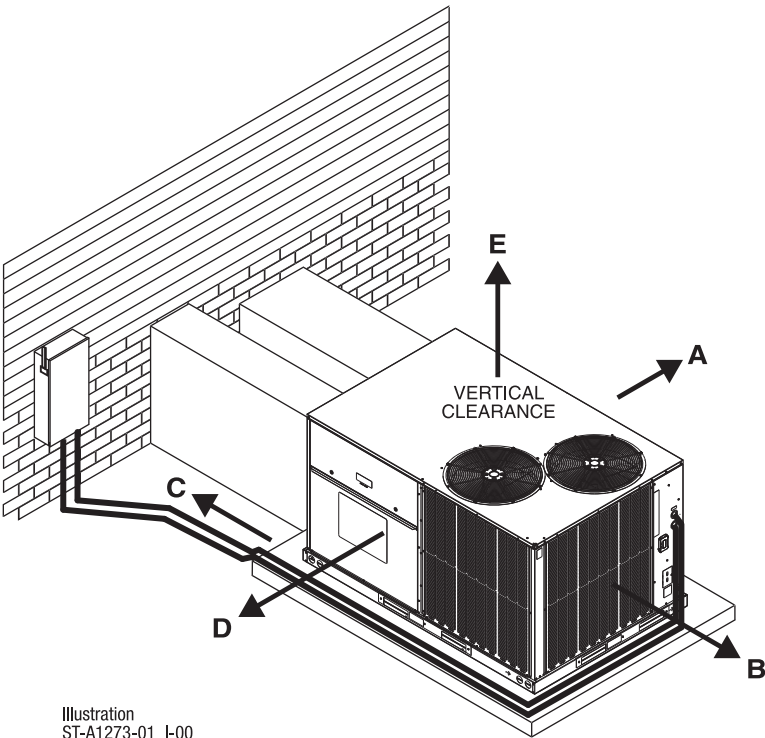


Illustration
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CLEARANCES

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

RECOMMENDED CLEARANCE In. [mm]	LOCATION
48 [1219]	A - FRONT
24 [609]	B - CONDENSER END
48 [1219] ①	C - DUCT END
24 [609] ②	D - FILTER SIDE
60 [1524]	E - ABOVE

- ① 18" [457 mm] MINIMUM IF DRAINPAN WILL NOT BE REMOVED.
② 48" [1219 mm] MINIMUM IF ECONOMIZER IS INSTALLED.

FIELD INSTALLED ACCESSORY EQUIPMENT

Accessory	Model Number	Shipping Weight Lbs. [kg]	Installed Weight Lbs. [kg]	Factory Installation Available?
Economizers				
Non-DDC Economizer with Single Enthalpy (Downflow) <i>MicroMetl Economizer with Siemens Controls</i>	RXRD-11MDDAM3	86 [39.0]	57 [25.9]	Yes
Non-DDC Economizer with Single Enthalpy (Downflow) <i>Ruskin Rooftop Systems Economizer with RRS Basic Controller</i>	RXRD-41MDDAM3	86 [39.0]	57 [25.9]	Yes
Non-DDC Economizer with Single Enthalpy (Downflow) <i>Ruskin Rooftop Systems Economizer with Siemens Controller</i>	RXRD-51MDDAM3	86 [39.0]	57 [25.9]	Yes
Non-DDC Economizer with Single Enthalpy (Horizontal) <i>MicroMetl Economizer with Siemens Controls</i>	RXRD-11MDHAM3	84 [38.1]	55 [24.9]	No
Non-DDC Economizer with Single Enthalpy (Horizontal) <i>Ruskin Rooftop Systems Economizer with RRS Basic Controller</i>	RXRD-41MDHAM3	84 [38.1]	55 [24.9]	No
Non-DDC Economizer with Single Enthalpy (Horizontal) <i>Ruskin Rooftop Systems Economizer with Siemens Controller</i>	RXRD-51MDHAM3	84 [38.1]	55 [24.9]	No
Non-DDC Economizer with No Controls (Downflow) <i>MicroMetl Economizer, Belimo Actuator</i>	RXRD-31MDDAM3	86 [39.0]	57 [25.9]	No
DDC Economizer with Single Enthalpy (Downflow) <i>MicroMetl Economizer with Honeywell Controller</i>	RXRD-01MDDBM3	86 [39.0]	57 [25.9]	Yes
DDC Economizer with Single Enthalpy (Horizontal) <i>MicroMetl Economizer with Honeywell Controller</i>	RXRD-01MDHBM3	84 [38.1]	55 [24.9]	No
Economizer Universal DDC Interface Kit	RXRX-DDC01	5 [2.7]	3.5 [1.6]	Yes

Accessory	Model Number	Shipping Weight Lbs. [kg]	Installed Weight Lbs. [kg]	Factory Installation Available?
Comfort Alert ¹ (3 Phase) DDC	RXRX-AZ01	3 [1.5]	2 [0.9]	Yes
Comfort Alert ¹ (3 Phase) Non-DDC	RXRX-AZ02	3 [1.5]	2 [0.9]	Yes
Communication Card, BACnet	RXRX-AY01	1 [0.5]	1 [0.5]	No
Communication Card, LonWorks	RXRX-AY02	1 [0.5]	1 [0.5]	No
Concentric Adapter 7.5/8.5 Ton Drop	RXMC-DD01	40 [18.1]	34 [15.4]	No
Concentric Adapter 10 Ton Drop	RXMC-DD02	75 [34.0]	65 [29.5]	No
Concentric Adapter 12.5 Ton Drop	RXMC-DD03	75 [34.0]	65 [29.5]	No
Concentric Diffuser 7.5/8.5 Ton Drop	RXRN-AED2000	35 [15.9]	30 [13.6]	No
Concentric Diffuser 7.5/8.5 Ton Flush	RXRN-AEF2000	30 [13.6]	25 [11.3]	No
Concentric Diffuser 10.0 Ton Drop	RXRN-AED3415	170 [77.1]	160 [72.6]	No
Concentric Diffuser 10.0 Ton Flush	RXRN-AEF3415	140 [113.4]	130 [59.0]	No
Concentric Diffuser 12.5 Ton Drop	RXRN-AED3618	190 [86.2]	180 [81.6]	No
Concentric Diffuser 12.5 Ton Flush	RXRN-AEF3618	180 [81.6]	170 [77.1]	No
Convenience Outlet, Unwired	RXRX-BN01	2 [1.0]	1.5 [.7]	Yes
Dual Enthalpy Kit (for Honeywell JADE™)	RXRX-BV01	1 [.5]	1 [.5]	No
Dual Enthalpy Kit DDC (for Honeywell DDC)	RXRX-BV02	1 [.5]	1 [.5]	No
Dual Enthalpy, Temperature and Humidity Sensor (for Ruskin Basic Controller)	PD955977	1 [0.5]	1 [0.5]	No
Dual Enthalpy, Temperature and Humidity Sensor (for Siemens Controller)	PD555460	1 [0.5]	1 [0.5]	No

¹One (1) Comfort Alert required per compressor²Compatible with roofcurbs RXKG-CAE14 or RXKG-CAE24

[] Designates Metric Conversions

FIELD INSTALLED ACCESSORY EQUIPMENT (CONTINUED)

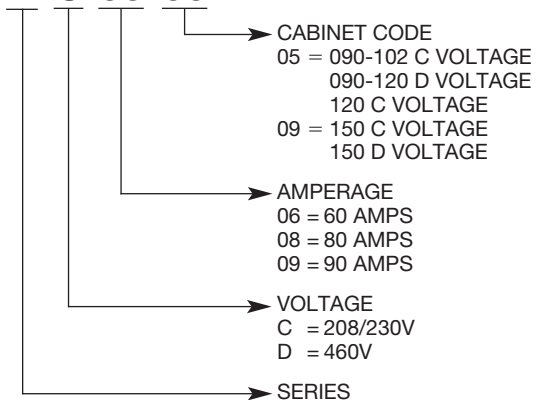
Accessory	Model Number	Shipping Weight Lbs. kg]	Installed Weight Lbs. kg]	Factory Installation Available?
Electric Heater Kits	RXJJ-DD10CP	30 [13.6]	27.5 [12.5]	Yes
	RXJJ-DD15CP	32 [14.5]	29.5 [13.4]	Yes
	RXJJ-DD20CP	34 [15.4]	31.5 [14.3]	Yes
	RXJJ-DD30CP	37 [16.8]	34.5 [15.6]	Yes
	RXJJ-DD40CP	40 [18.1]	37.5 [17.0]	Yes
	RXJJ-DD10DNV	30 [13.6]	27.5 [12.5]	Yes
	RXJJ-DD15DNV	32 [14.5]	29.5 [13.4]	Yes
	RXJJ-DD20DNV	34 [15.4]	31.5 [14.3]	Yes
	RXJJ-DD30DNV	37 [16.8]	34.5 [15.6]	Yes
	RXJJ-DD40DNV	40 [18.1]	37.5 [17.0]	Yes
	RXJJ-DD10Y	30 [13.6]	27.5 [12.5]	No
	RXJJ-DD15Y	32 [14.5]	29.5 [13.4]	No
	RXJJ-DD20Y	34 [15.4]	31.5 [14.3]	No
	RXJJ-DD30Y	37 [16.8]	34.5 [15.6]	No
	RXJJ-DD40Y	40 [18.1]	37.5 [17.0]	No
Freeze Stat Kit	RXRX-AM01	2 [1.0]	1.5 [.7]	Yes
Fresh Air Damper, Manual	RXRF-ADA1	15 [6.8]	12 [5.4]	No
Fresh Air Damper, Motorized	RXRF-ADB1	38 [17.2]	31 [14.06]	No
Fresh Air Damper, Motorized (DDC)	RXRF-ADC1	38 [17.2]	31 [14.06]	No
Low-Ambient Control Kit	RXRZ-A04	4 [1.8]	3 [1.4]	Yes
MERV 8 Filter 7.5 & 8.5 Ton	RXMF-M08A22020	2 [0.9]	1 [0.45]	No
MERV 8 Filter 10 & 12.5 Ton	RXMF-M08A22520	2 [0.9]	1 [0.45]	No
MERV 13 Filter 7.5 & 8.5 Ton	RXMF-M13A22020	2 [0.9]	1 [0.45]	No
MERV 13 Filter 10 & 12.5 Ton	RXMF-M13A22520	2 [0.9]	1 [0.45]	No
Outdoor Coil Louver Kit - RACD 7.5 & 8.5 Ton	RXRX-ADD04A	52 [23.6]	47 [21.3]	Yes
Outdoor Coil Louver Kit - RACD 10 & 12.5 Ton	RXRX-ADD04B	43 [19.5]	39 [17.7]	Yes
Power Exhaust (230V) Kit, Convertible (MicroMetl)	RXRX-CDF01C	104 [47.2]	94 [42.6]	No
Power Exhaust (460V) Kit, Convertible (MicroMetl)	RXRX-CDF01D	104 [47.2]	94 [42.6]	No
Power Exhaust (230V) Kit for Downflow Economizer (RRS)	RXRX-RDF01C	104 [47.2]	94 [42.6]	No
Power Exhaust (460V) Kit for Downflow Economizer (RRS)	RXRX-RDF01D	104 [47.2]	94 [42.6]	No
Power Exhaust (575V) Kit for Downflow Economizer (RRS)	RXRX-RDF01Y	104 [47.2]	94 [42.6]	No
Power Exhaust (230V) Kit for Horizontal Economizer (RRS)	RXRX-RDF03C	104 [47.2]	94 [42.6]	No
Power Exhaust (460V) Kit for Horizontal Economizer (RRS)	RXRX-RDF03D	104 [47.2]	94 [42.6]	No
Power Exhaust (575V) Kit for Horizontal Economizer (RRS)	RXRX-RDF03Y	104 [47.2]	94 [42.6]	No
Roofcurb, 14"	RXKG-DDD14	109 [49.4]	104 [47.2]	No
Roofcurb, 14" Welded	RXKG-SD14	109 [49.4]	105 [47.6]	No
Roofcurb, 24"	RXKG-DDD24	145 [65.8]	140 [63.5]	No
Roofcurb, 24" Welded	RXKG-SD24	145 [65.8]	142 [64.4]	No
Roofcurb Adapter ²	RXRX-DDCAE	235 [106.6]	215 [97.5]	No
Sensor, Carbon Dioxide (Wall Mount)	RXRX-AR02	3 [1.4]	2 [1.0]	No
Sensor, Room Humidity	RHC-ZNS4	1 [0.5]	1 [0.5]	No
Sensor, Room Temperature and Relative Humidity	RHC-ZNS5	1 [0.5]	1 [0.5]	No
Single Point Wiring Kit	RXJX-AC0605	23 [10.4]	25 [11.3]	No
	RXJX-AC0805	24 [10.9]	26 [11.8]	No
	RXJX-AD0605	25 [11.3]	27 [12.2]	No
	RXJX-AC0909	26 [11.8]	28 [12.7]	No
	RXJX-AD0609	25 [11.3]	27 [12.2]	No
Smoke Detector Kit, Return	RXRX-BS03	5 [2.7]	3.5 [1.6]	No
Smoke Detector Kit, Return/Supply	RXRX-BS04	7 [3.2]	5 [2.7]	No
Unfused Service Disconnect	RXRX-BP01	10 [4.5]	9 [4.1]	Yes

¹One (1) Comfort Alert required per compressor

²Compatible with roofcurbs RXKG-CAE14 or RXKG-CAE24

SINGLE POINT WIRING KIT

RXJX-A C 09 09



COMMUNICATION CARDS

Field Installed



BACnet COMMUNICATION CARD RXRX-AY01

The field installed BACnet Communication Card allows the RTU-C unit controller to communicate with a third party building management system that supports the BACnet Application Specific Controller device profile. The BACnet Communication Module plugs onto the unit RTU-C controller and allows communication between the RTU-C and the BACnet MSTP network.



LonWorks COMMUNICATION CARD RXRX-AY02

The field installed LonWorks Communication Card allows the RTU-C unit controller to communicate with a third party building management system that supports the LonMark Space Comfort Controller (SCC) functional profile or LonMark Discharge Air Controller (DAC) functional profile. The LonMark Communication Module plugs onto the RTU-C controller and allows communication between the RTU-C and a LonWorks Network.

DOWNFLOW TRANSITION DRAWINGS

RXMC-DD01 – Concentric Adapter 7.5/8.5 Ton Drop

- Used with RXRN-AEF2000 or RXRN-AED2000 Concentric Diffusers

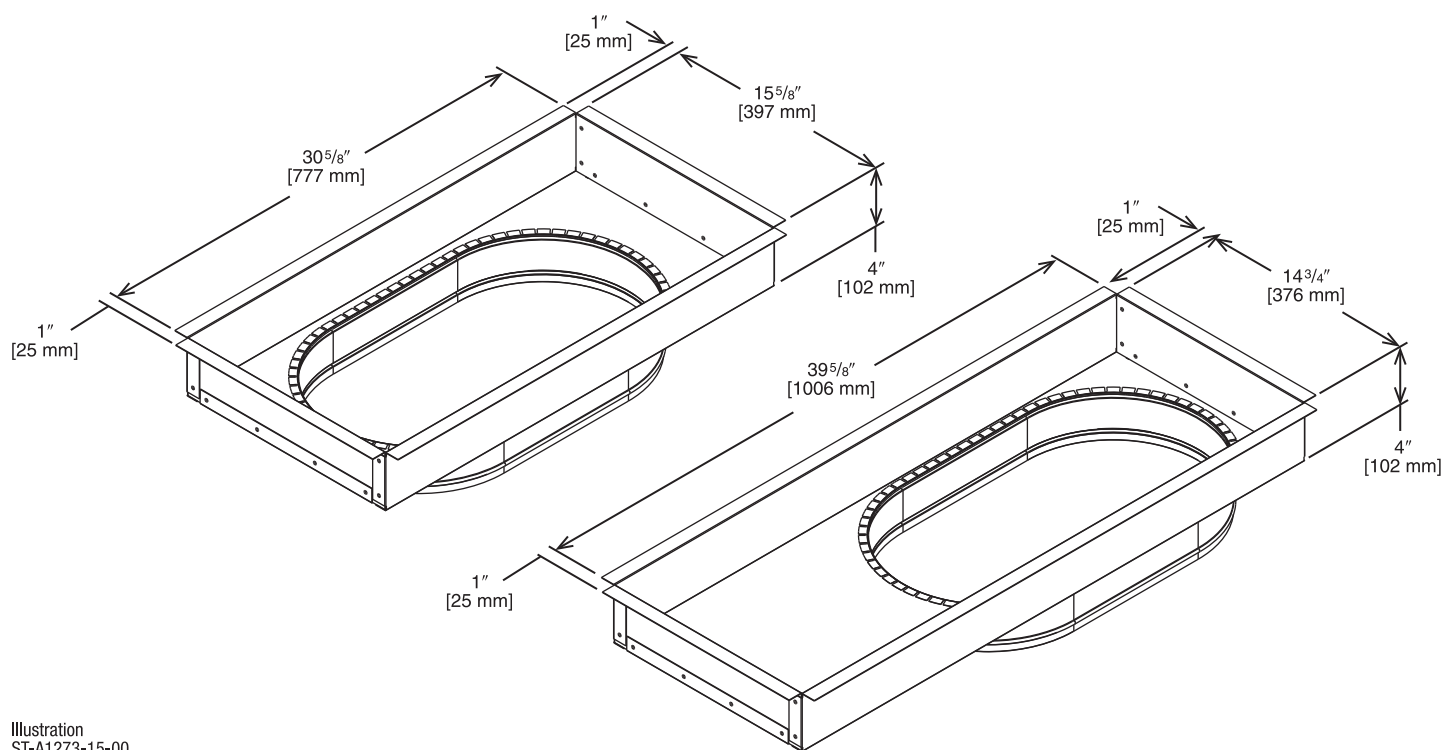
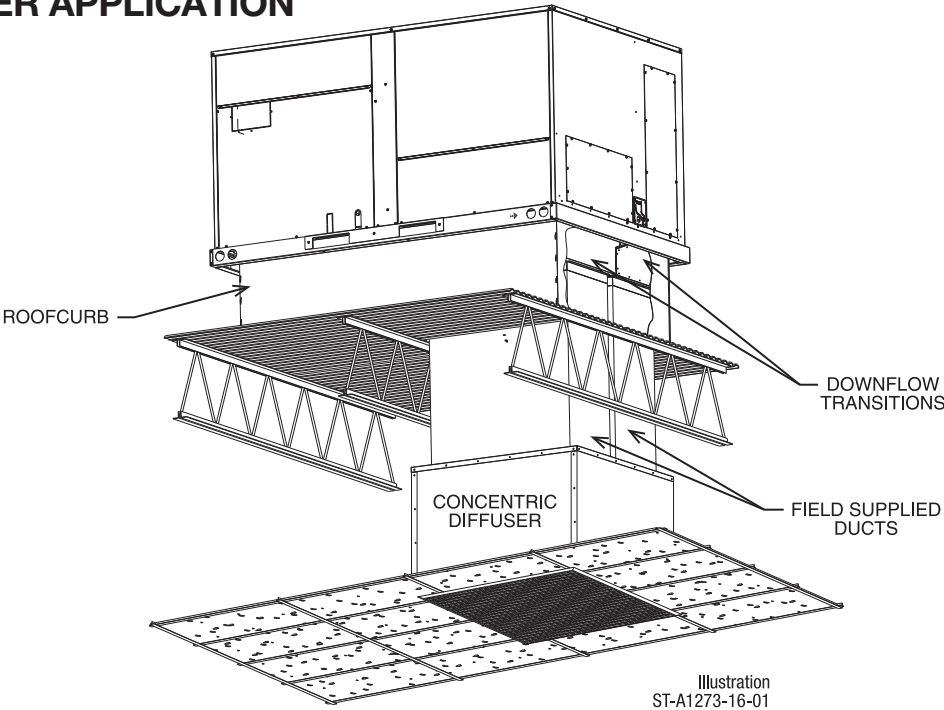


Illustration
ST-A1273-15-00

[] Designates Metric Conversions

CONCENTRIC DIFFUSER APPLICATION



DOWNFLOW TRANSITION DRAWINGS

RXMC-DD02—Concentric Adapter 10 Ton Drop

- Used with RXRN-AEF3415 or RXRN-AED3415 Concentric Diffusers

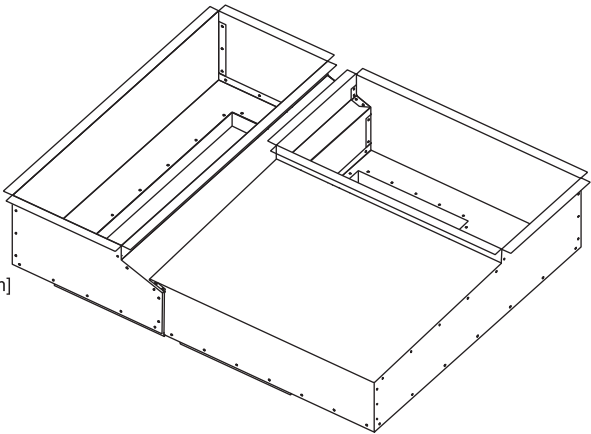
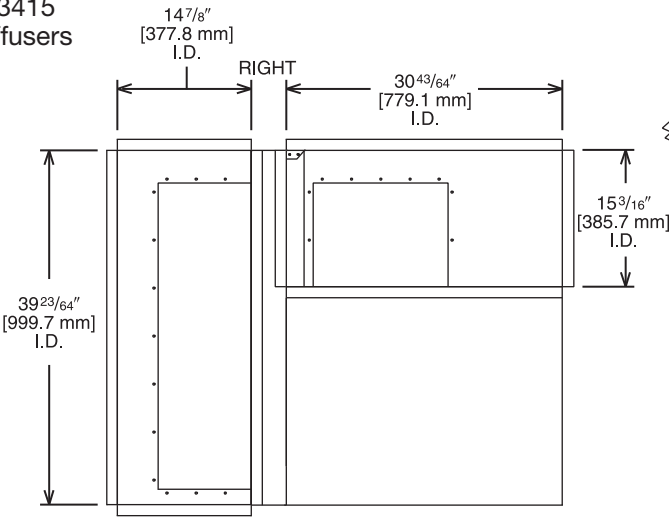
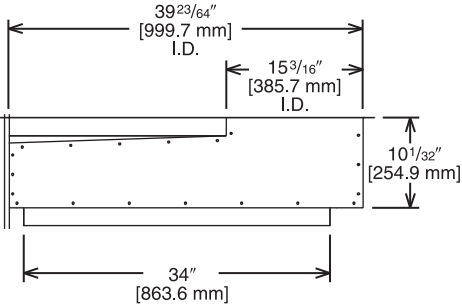
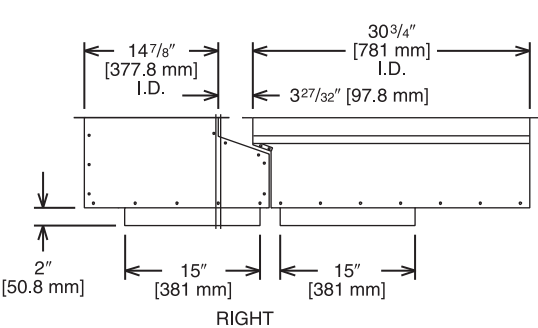


Illustration
ADS-106193-02



[] Designates Metric Conversions

DOWNFLOW TRANSITION DRAWINGS (CONTINUED)

RXMC-DD03—Concentric Adapter 12.5 Ton Drop

- Used with RXRN-AEF3618 or RXRN-AED3618 Concentric Diffusers

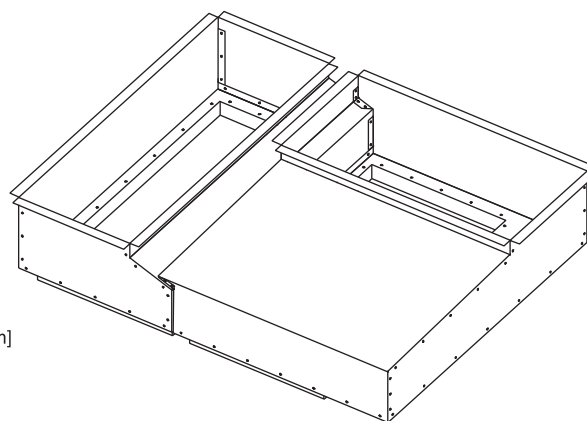
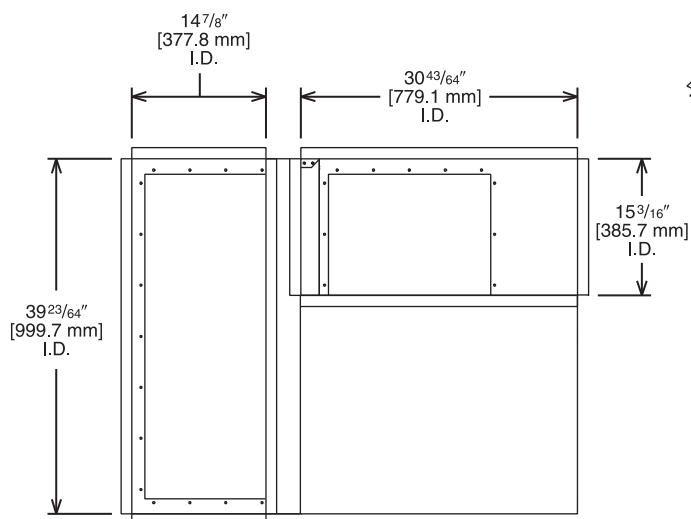
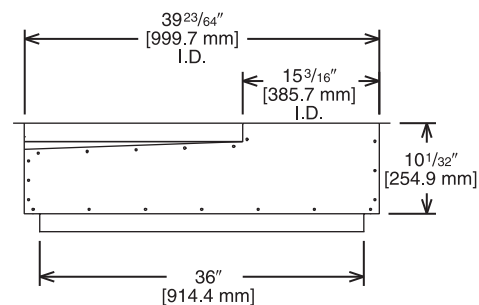
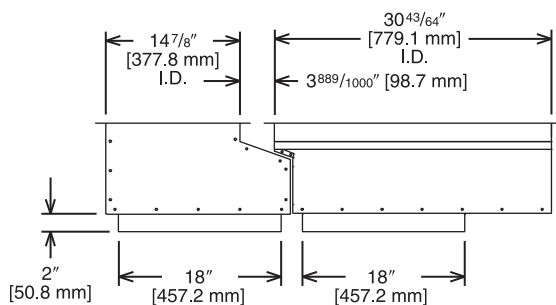


Illustration
 ADS-106193-03



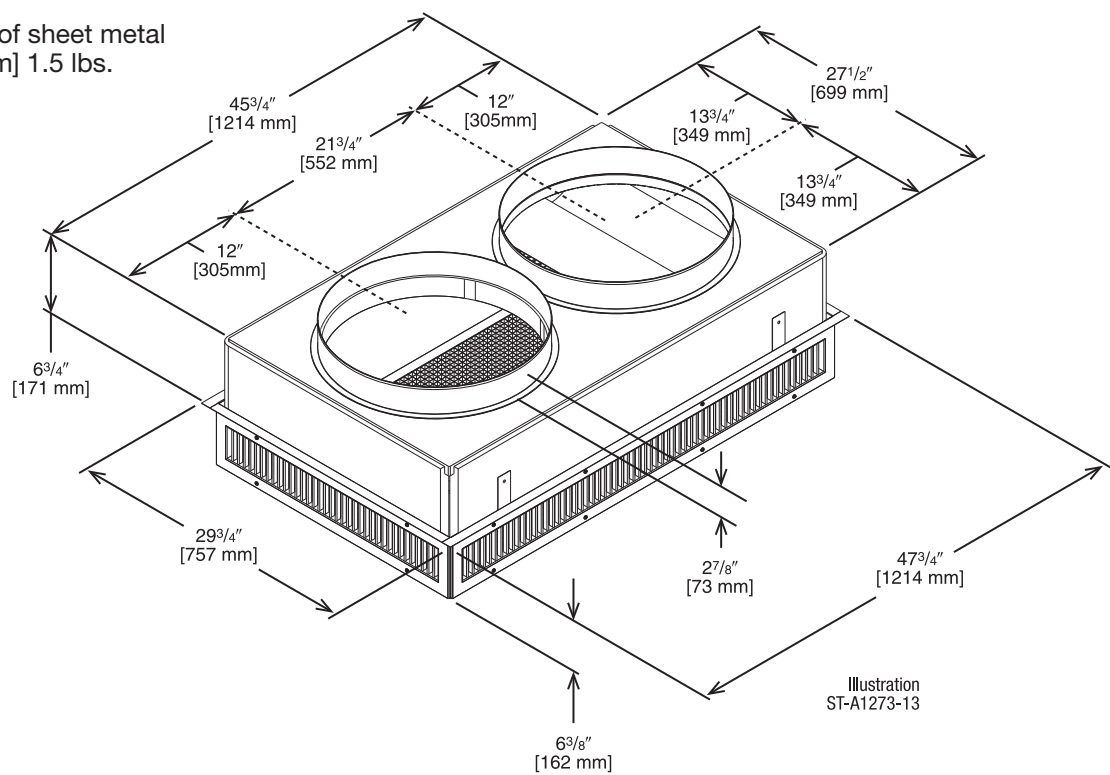
[] Designates Metric Conversions

CONCENTRIC DIFFUSER 7.5/8.5 TON DROP

RXRN-AED2000

For Use With Concentric Adapter (RXMC-DD01)
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 sheet metal insulated with 1" [25.4 mm] 1.5 lbs. [.7 kg] duct liner



ENGINEERING DATA^①

Model No.	Flow Rate CFM [L/s]	Throw ^② ^③ Feet [m]	Neck Velocity fpm [m/s]	Noise Level ^④ (dbA)
RXRN-AED2000	2600 [1222]	22-39 [6.7-11.9]	669.0 [3.4]	32
	2800 [1316]	23-40 [7.1-12.2]	720.0 [3.7]	38
	3000 [1410]	25-42 [7.6-12.8]	772.0 [3.9]	40
	3200 [1504]	26-43 [7.9-13.1]	823.0 [4.2]	41
	3400 [1598]	27-45 [8.2-13.7]	874.0 [4.4]	42
	3600 [1692]	30-50 [9.1-15.2]	925.5 [4.7]	45
	3800 [1786]	32-53 [9.8-16.2]	976.8 [4.9]	48
	4000 [1880]	34-56 [10.4-17.1]	1028.1 [5.2]	50

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 7.5/8.5 TON FLUSH

RXRN-AEF2000 (7.5 & 8.5 Ton Models)

For Use With Concentric Adapter (RXMC-DD01)
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 sheet metal insulated with 1" [25.4 mm] 1.5 lbs. [.7 kg] duct liner

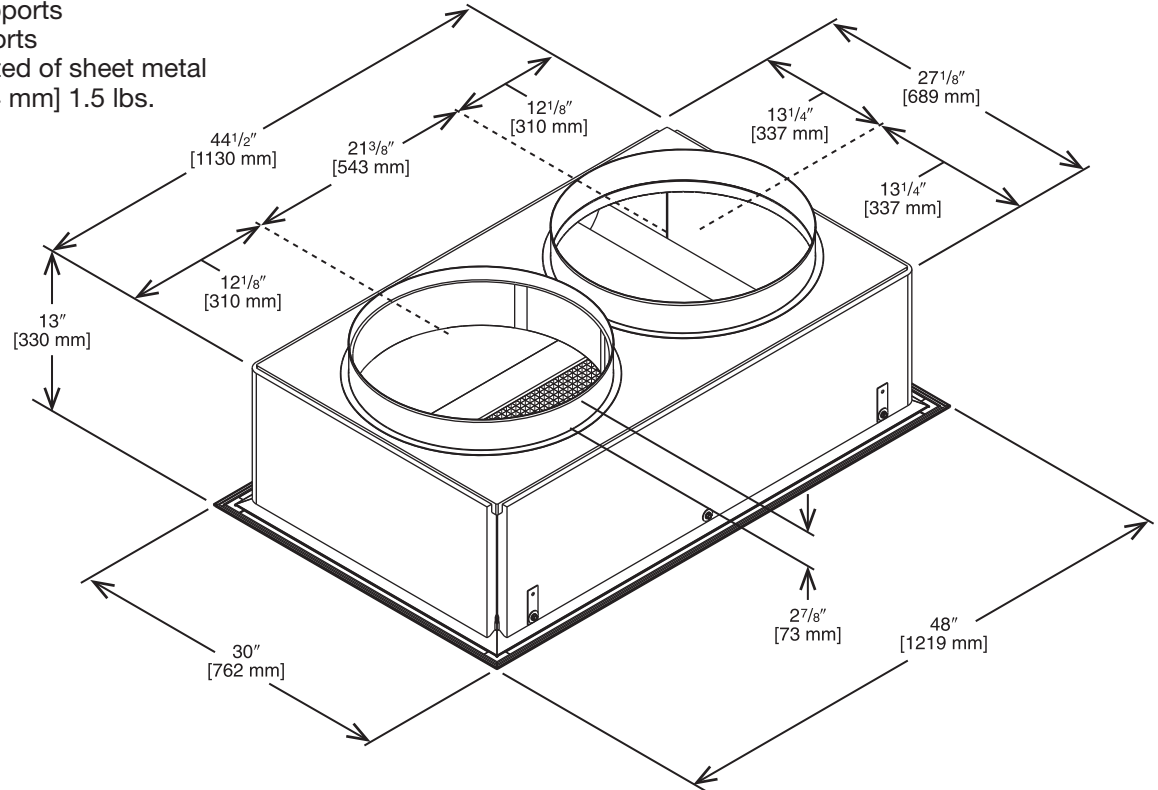


Illustration
ST-A1273-14-00

ENGINEERING DATA^①

Model No.	Flow Rate CFM [L/s]	Throw ^② ^③ Feet [m]	Neck Velocity fpm [m/s]	Noise Level ^④ (dbA)
RXRN-AEF2000	2600 [1222]	17-24 [5.2-7.3]	663 [3.4]	30
	2800 [1316]	18-28 [5.5-8.5]	714 [3.6]	35
	3000 [1410]	20-30 [6.1-9.1]	765 [3.9]	35
	3200 [1504]	22-33 [6.7-10.1]	816 [4.1]	40
	3400 [1598]	23-37 [7-11.3]	867 [4.4]	40
	3600 [1692]	25-38 [7.6-11.6]	918 [4.7]	43
	3800 [1786]	26-39 [7.9-11.9]	969 [4.9]	45
	4000 [1880]	27-40 [8.2-12.2]	1020 [5.2]	48

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 10.0 TON DROP 15" x 34" [381 x 836 mm]

RXRN-AED3415

**For Use With Concentric Adapter (RXMC-DD02)
and 15" x 34" [381 x 836 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 sheet metal insulated with 1" [25.4 mm] 1.5 lbs. [.7 kg] duct liner
- Double deflection diffuser with the blades secured by spring steel

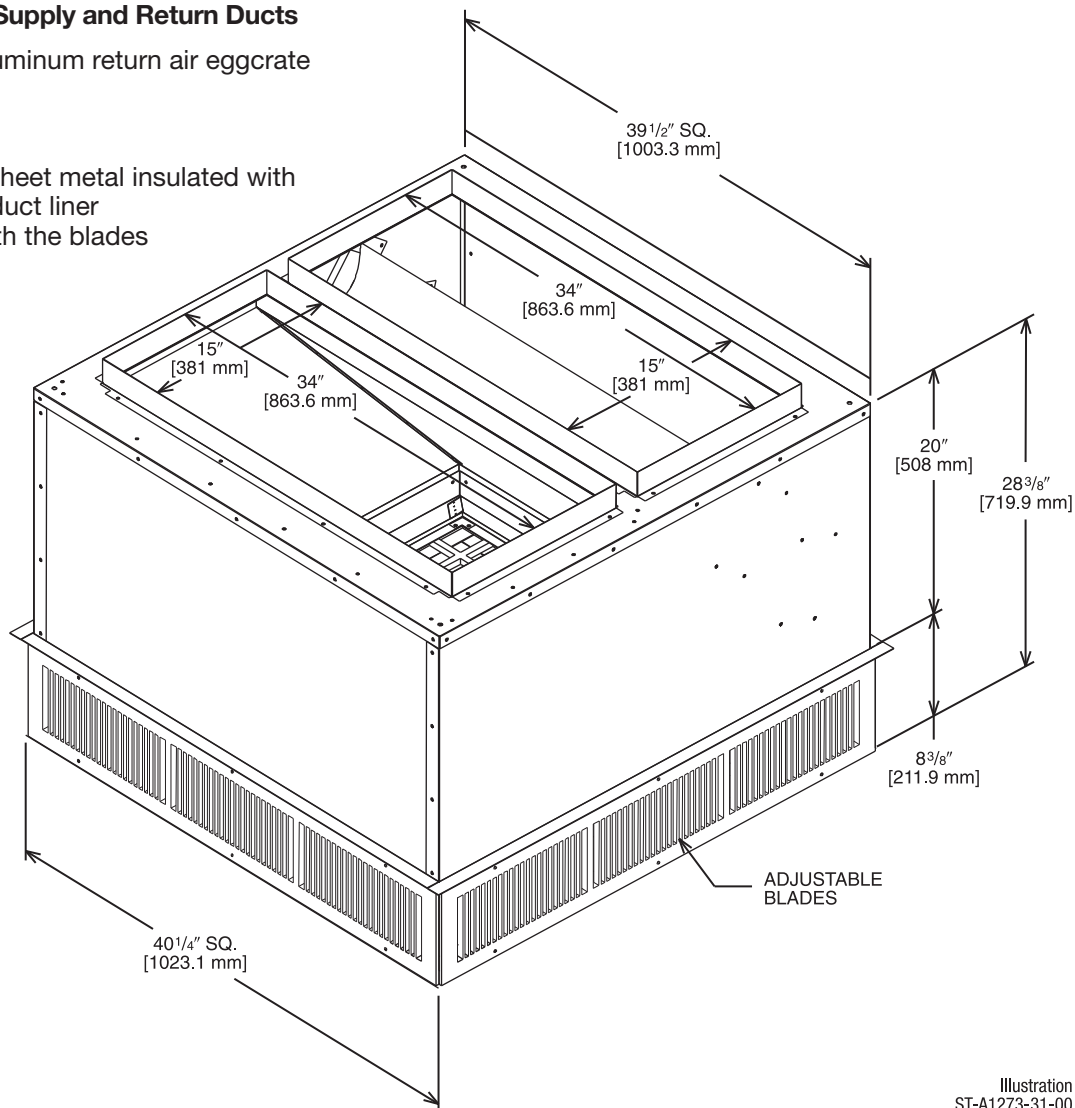


Illustration
ST-A1273-31-00

ENGINEERING DATA^①

Model No.	Flow Rate CFM [L/s]	Throw ^② ^③ Feet [m]	Neck Velocity fpm [m/s]	Noise Level ^④ (dbA)
RXRN-AED3415	3600 [1692]	26-53 [7.9-16.2]	851.0 [4.3]	27
	3800 [1786]	27-55 [8.2-16.8]	898.0 [4.5]	29
	4000 [1880]	29-58 [8.8-17.7]	946.0 [4.8]	30
	4200 [1974]	31-61 [9.4-18.6]	993.0 [5.1]	32
	4400 [2068]	32-64 [9.8-19.5]	1040.0 [5.3]	33
	4600 [2162]	34-66 [10.4-20.1]	1087.5 [5.5]	35

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 10.0 TON FLUSH 15" x 34" [381 x 864 mm]

RXRN-AEF3415

For Use With Concentric Adapter (RXMC-DD02)
15" x 34" [381 x 864 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 sheet metal insulated with 1" [25.4 mm] 1.5 lbs. [.7 kg] duct liner

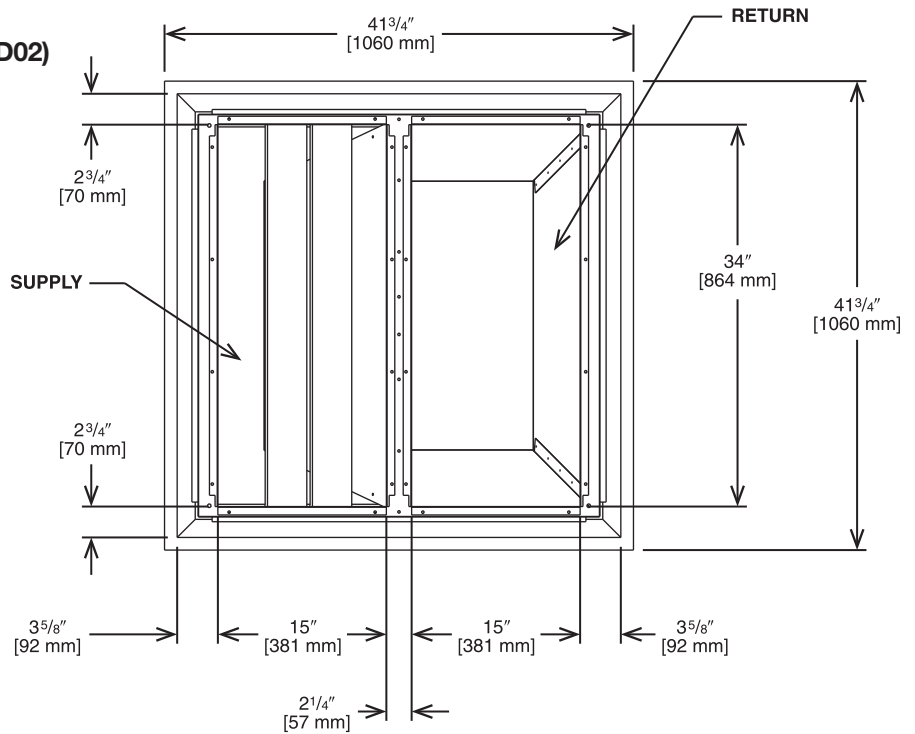


Illustration
ST-A1273-07-00

ENGINEERING DATA^①

Model No.	Flow Rate CFM [L/s]	Throw ^② ^③ Feet [m]	Neck Velocity fpm [m/s]	Noise Level ^④ (dba)
RXRN-AEF3415	3600 [1692]	14-34 [4.3-10.4]	844 [4.3]	27
	3800 [1786]	15-36 [4.6-11.1]	891 [4.5]	29
	4000 [1880]	16-37 [4.9-11.3]	938 [4.8]	30
	4200 [1974]	17-39 [5.2-11.9]	985 [5.1]	32
	4400 [2068]	18-41 [5.5-12.5]	1032 [5.2]	33
	4600 [2162]	19-43 [5.8-13.1]	1079 [5.5]	35
	4800 [2256]	20-45 [6.1-13.7]	1126 [5.7]	36

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 12.5 TON DROP
18" x 36" [457 x 914 mm]

RXRN-AED3618

For Use With Concentric Adapter (RXMC-DD03)
and 18" x 36" [457 x 914 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 sheet metal insulated with 1" [25.4 mm] 1.5 lbs. [.7 kg] duct liner
- Double deflection diffuser with the blades secured by spring steel

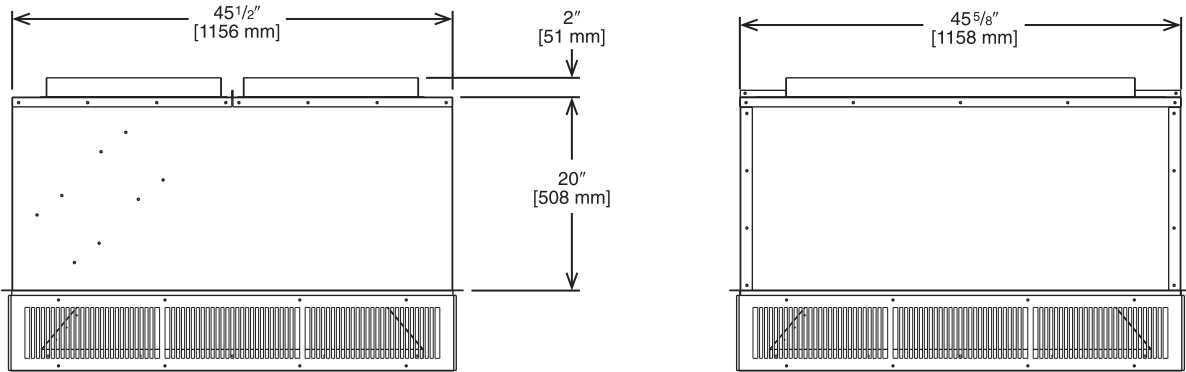
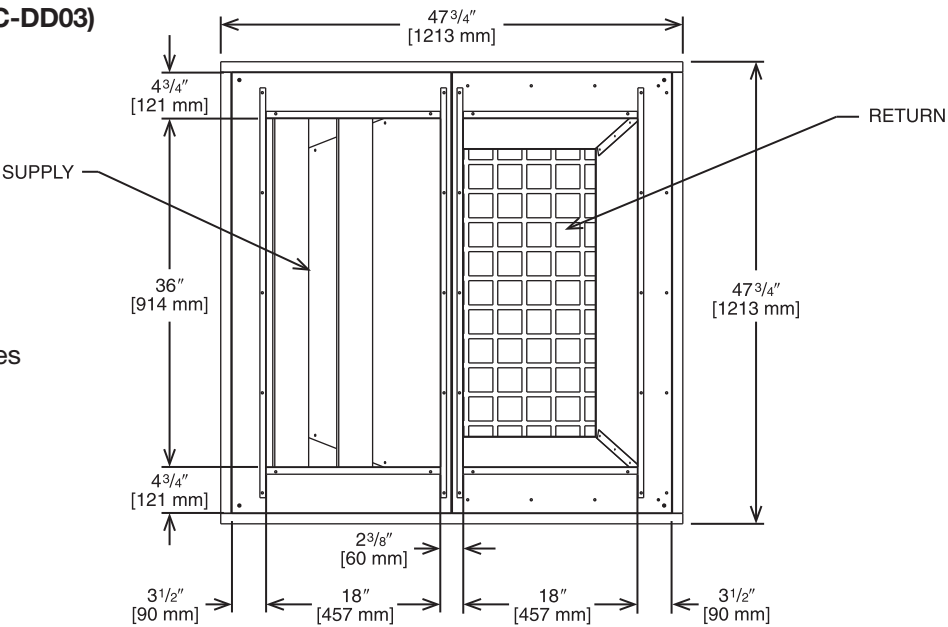


Illustration
ST-A1273-11-00

ENGINEERING DATA^①

Model No.	Flow Rate CFM [L/s]	Throw ^② ^③ Feet [m]	Neck Velocity fpm [m/s]	Noise Level ^④ (dbA)
RXRN-AED3618	4400 [2068]	29-55 [8.8-16.8]	841 [4.3]	26
	4600 [2162]	31-57 [9.4-17.4]	875 [4.4]	28
	4800 [2256]	32-60 [9.8-18.3]	915 [4.6]	29
	5000 [2350]	33-62 [10.1-18.9]	951 [4.8]	30
	5200 [2444]	34-65 [10.4-19.8]	988 [5.1]	31
	5400 [2538]	36-67 [10.9-20.4]	1025 [5.2]	32

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 12.5 TON FLUSH 18" x 36" [457 x 914 mm]

RXRN-AEF3618

For Use With Concentric Adapter (RXMC-DD03)
and 18" x 36" [457 x 914 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 sheet metal insulated with 1" [25.4 mm] 1.5 lbs. [.7 kg] duct liner

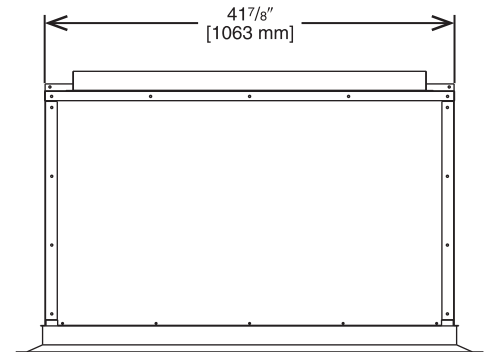
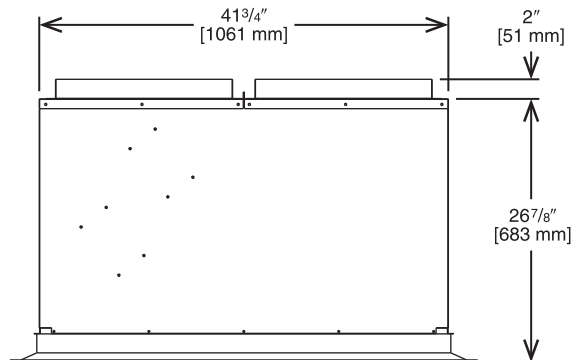
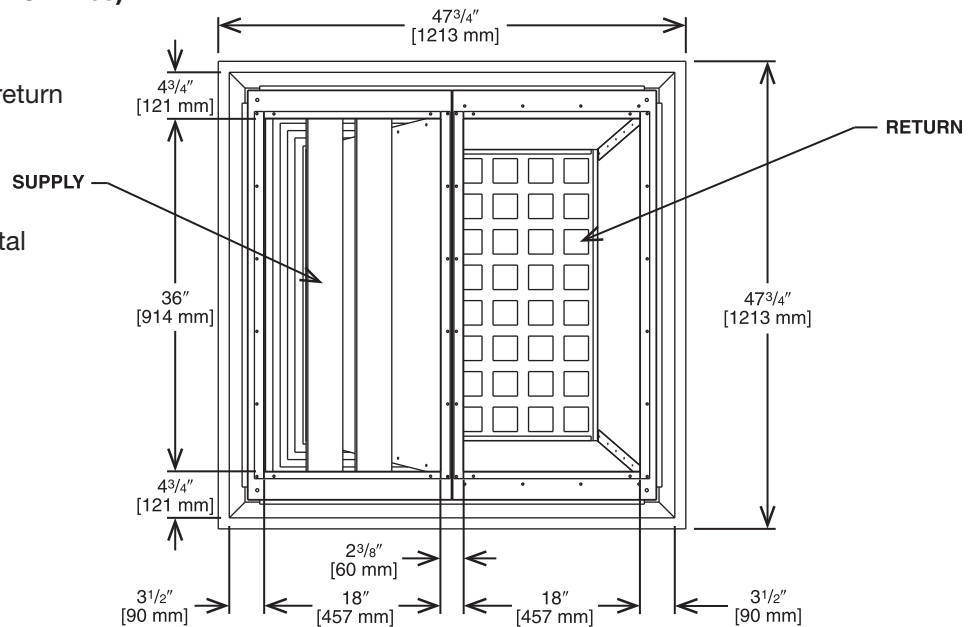


Illustration
ST-A1273-12-00

ENGINEERING DATA^①

Model No.	Flow Rate CFM [L/s]	Throw ^② ^③ Feet [m]	Neck Velocity fpm [m/s]	Noise Level ^④ (dB(A))
RXRN-AEF3618	4400 [2068]	13-28 [4.1-8.5]	922 [47]	35
	4600 [2162]	14-30 [4.3-9.1]	962 [4.9]	37
	4800 [2256]	15-31 [4.6-9.4]	1002 [5.1]	39
	5000 [2350]	16-32 [4.9-9.8]	1043 [5.3]	40
	5200 [2444]	17-33 [5.2-10.1]	1083 [5.5]	42
	5400 [2538]	18-35 [5.5-10.7]	1123 [5.7]	43

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

NON DDC ECONOMIZER W/SINGLE ENTHALPY (DOWNFLOW) MICROMETL ECONOMIZER WITH SIEMENS CONTROL

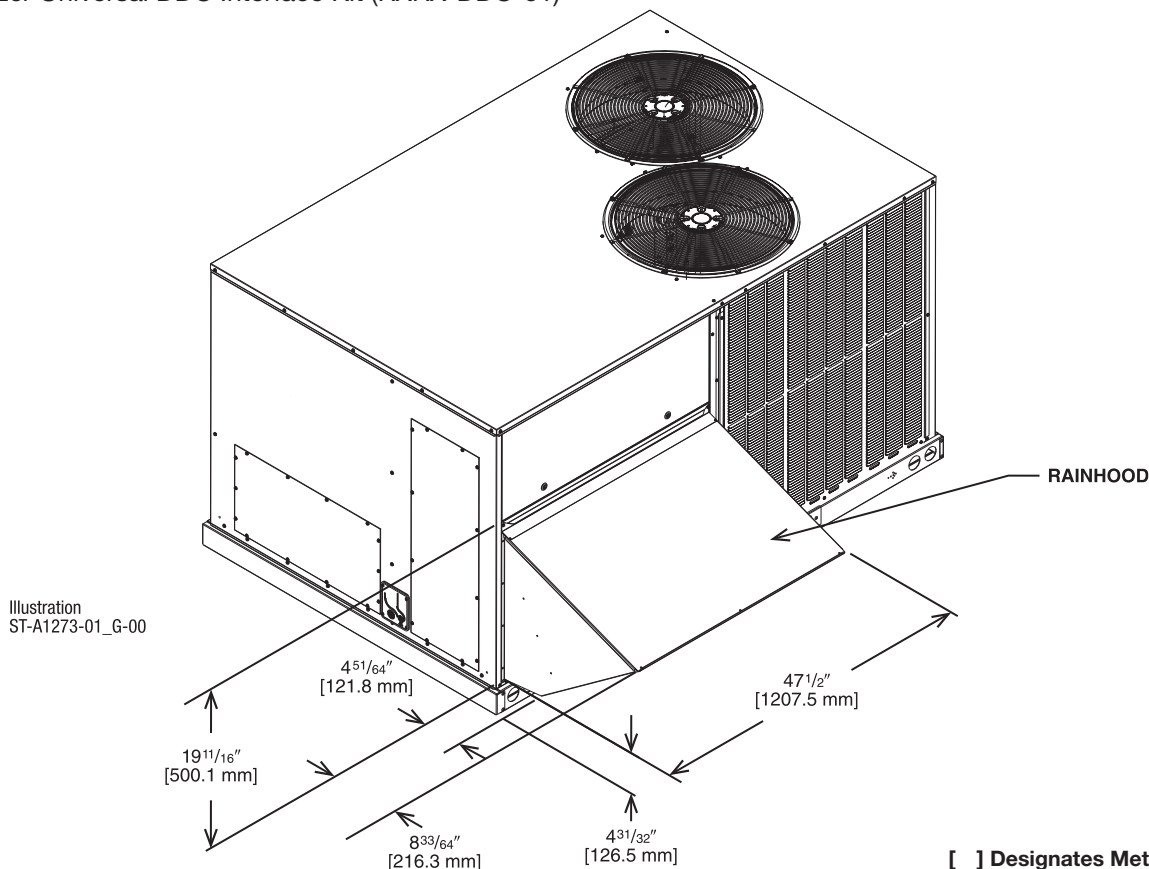
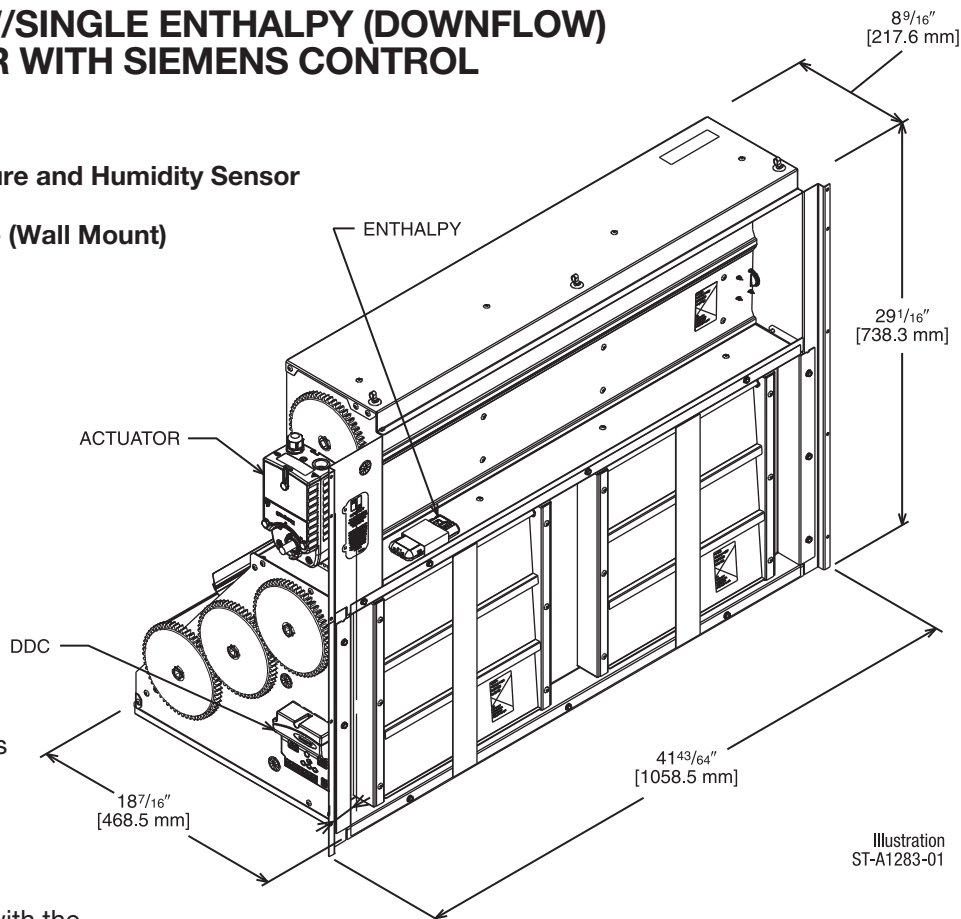
Factory or Field-Installed

RXRD-11MDDAM3

**PD555460—Dual Enthalpy, Temperature and Humidity Sensor
 (for Siemens Controller)**

RXRX-AR02—Sensor, Carbon Dioxide (Wall Mount)

- Features **Siemens** Controls
- Gear Driven Direct Drive Actuator
- Fully Modulating (0-100%)
- Low Leakage Dampers
- Slip-In Design for Easy Installation
- Standard Barometric Relief Damper
- Single Enthalpy with Dual Enthalpy Upgrade Kit Available
- CO₂ Input Sensor Option
- Field Assembled Hood Ships with Economizer
- Economizer Ships Complete for Downflow Duct Application
- Field Installed Power Exhaust Option
- Prewired for Smoke Detector
- If connected to a Building Automation System (BAS), all economizer functions can be viewed on the (BAS) or 16 x 2 LCD screen
- If connected to thermostat, all economizer functions can be viewed on 16 x 2 LCD screen
- Can be Converted to DDC Operation with the Economizer Universal DDC Interface Kit (RXRX-DDC-01)



[] Designates Metric Conversions

NON-DDC ECONOMIZER W/SINGLE ENTHALPY (DOWNFLOW) RUSKIN ROOFTOP SYSTEMS ECONOMIZER WITH RRS BASIC CONTROLLER

Factory or Field-Installed

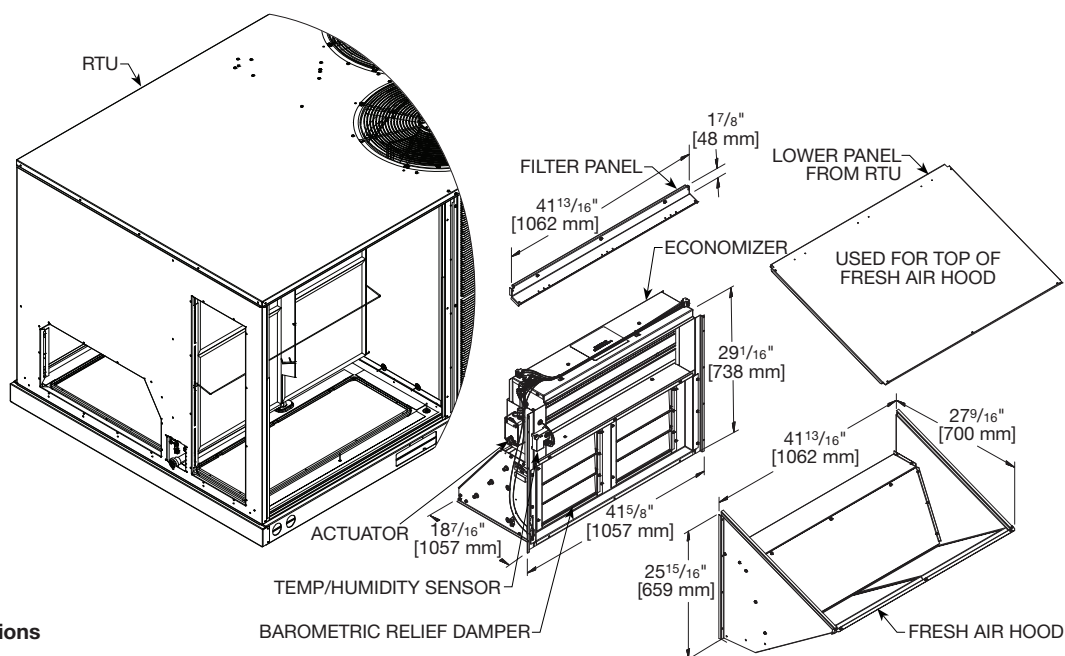
RXRD-41MDDAM3

PD955877—Dual Enthalpy, Temperature and Humidity Sensor (for Ruskin Basic Controller)

RXXR-AR02—Sensor, Carbon Dioxide (Wall Mount)

These ultra-low leak economizer dampers meet the following minimum construction standards:

1. Frame shall be 14 to 24 gauge galvanized steel channel.
2. Damper blades are galvanized steel airfoil shaped, double skin construction of 14 gauge [2.0] equivalent thickness, 6" [152 mm] wide. Parallel action.
3. Blade edge seals shall be Ruskiprene™ type or equivalent suitable for -72°F [-60°C] to +275°F [+135°C] mechanically locked into the blade edge. Adhesive or clip-on type seals are unacceptable.
4. Jamb seals shall be flexible metal, compression type to prevent leakage between blade end and damper frame. Blade end overlapping frame is unacceptable.
5. Bearings shall be stainless steel or nylon bushing.
6. Axles shall be hexagonal positively locked into the damper blade.
7. Drive mechanism shall be concealed out of airstream to reduce pressure drop and noise.
8. Economizer damper is tested and rated based upon AMCA Publication 500-D.
9. RRS controls feature the Basic economizer controller with 24V actuator. Controls capable of Economizer Fault Detection and Diagnostics for code compliance.
10. Damper shall meet the leakage requirements of the International Energy Conservation Code by leaking less than 3 cfm/sq. ft. at 1" of static pressure and shall be AMCA licensed as a class 1A damper. Complies with reliability and performance requirements as specified by the California Energy Commission's Title 24 Standard and ASHRAE 90.1 2022. Economizer dampers shall be Ruskin Rooftop Systems ECD60 model.
11. Can be Converted to DDC Operation with the Economizer Universal DDC Interface Kit (RXXR-DDC01).



[] Designates Metric Conversions

NON-DDC ECONOMIZER WITH SINGLE ENTHALPY (DOWNFLOW) RUSKIN ROOFTOP SYSTEMS ECONOMIZER WITH SIEMENS CONTROLLER

Factory or Field-Installed

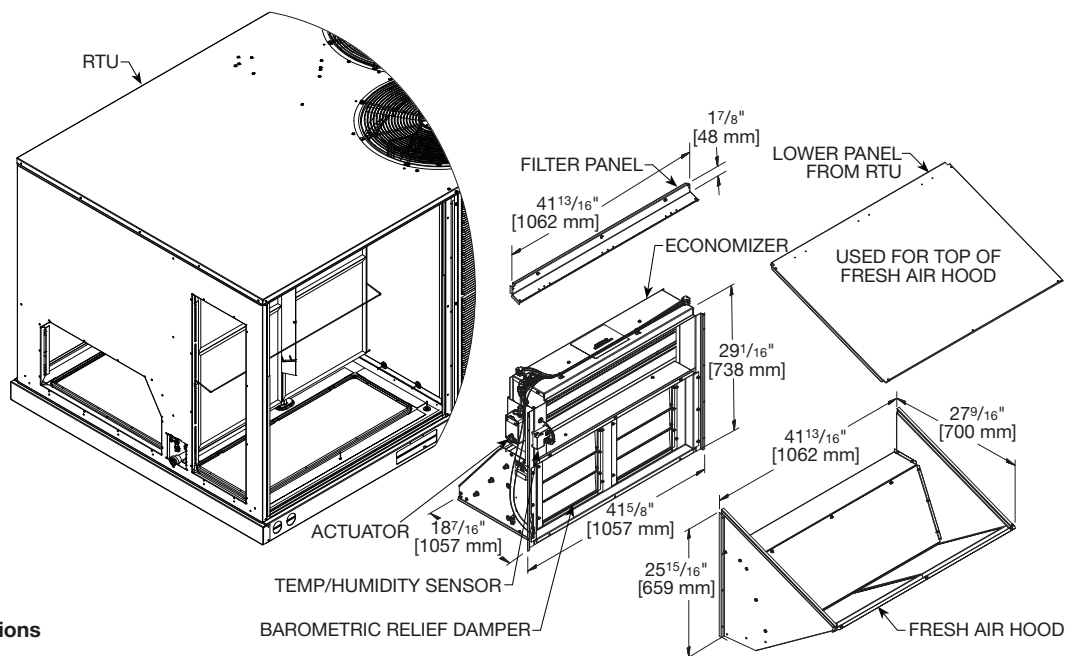
RXRD-51MDDAM3

PD555460—Dual Enthalpy, Temperature and Humidity Sensor (for Siemens Controller)

RXXR-AR02—Sensor, Carbon Dioxide (Wall Mount)

These ultra-low leak economizer dampers meet the following minimum construction standards:

1. Frame shall be 14 to 24 gauge galvanized steel channel.
2. Damper blades are galvanized steel airfoil shaped, double skin construction of 14 gauge [2.0] equivalent thickness, 6" [152 mm] wide. Parallel action.
3. Blade edge seals shall be Ruskiprene™ type or equivalent suitable for -72°F [-60°C] to +275°F [+135°C] mechanically locked into the blade edge. Adhesive or clip-on type seals are unacceptable.
4. Jamb seals shall be flexible metal, compression type to prevent leakage between blade end and damper frame. Blade end overlapping frame is unacceptable.
5. Bearings shall be stainless steel or nylon bushing.
6. Axles shall be hexagonal positively locked into the damper blade.
7. Drive mechanism shall be concealed out of airstream to reduce pressure drop and noise.
8. Economizer damper is tested and rated based upon AMCA Publication 500-D.
9. Controls feature the Siemens controller with Siemens 24v actuator. Controls capable of Economizer Fault Detection and Diagnostics for code compliance
10. Damper shall meet the leakage requirements of the International Energy Conservation Code by leaking less than 3 cfm/sq. ft. at 1" of static pressure and shall be AMCA licensed as a class 1A damper. Complies with reliability and performance requirements as specified by the California Energy Commission's Title 24 Standard and ASHRAE 90.1 2022. Economizer dampers shall be Ruskin Rooftop Systems ECD60 model.
11. Can be Converted to DDC Operation with the Economizer Universal DDC Interface Kit (RXXR-DDC01).



[] Designates Metric Conversions

NON-DDC MICROMETL ECONOMIZER WITH SIEMENS CONTROLS

Field-Installed Only

RXRD-11MDHAM3

RXRX-BV01—Dual Enthalpy Kit (for Honeywell JADE)

RXRX-AR02—Sensor, Carbon Dioxide (Wall Mount)

- Features **Siemens** Controls
- Gear Driven Direct Drive Actuator
- Fully Modulating (0-100%)
- Low Leakage Dampers
- Slip-In Design for Easy Installation
- Standard Barometric Relief Damper
- Single Enthalpy with Dual Enthalpy Upgrade Kit Option
- CO₂ Input Sensor Option
- Field Assembled Hood Ships with Economizer
- Economizer Ships Complete for Horizontal Duct Application
- Field Installed Power Exhaust Option
- If connected to a Building Automation System (BAS), all economizer functions can be viewed on the (BAS) or 16 x 2 LCD screen
- If connected to thermostat, all economizer functions can be viewed on 16 x 2 LCD screen
- Can be Converted to DDC Operation with the Economizer Universal DDC Interface Kit (RXRX-DDC01)

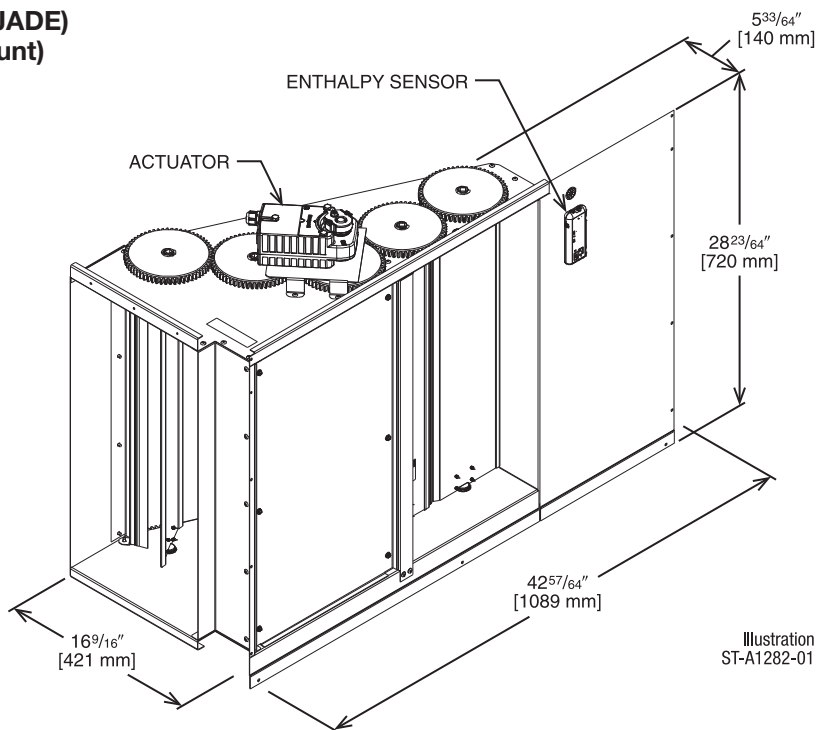


Illustration
ST-A1282-01

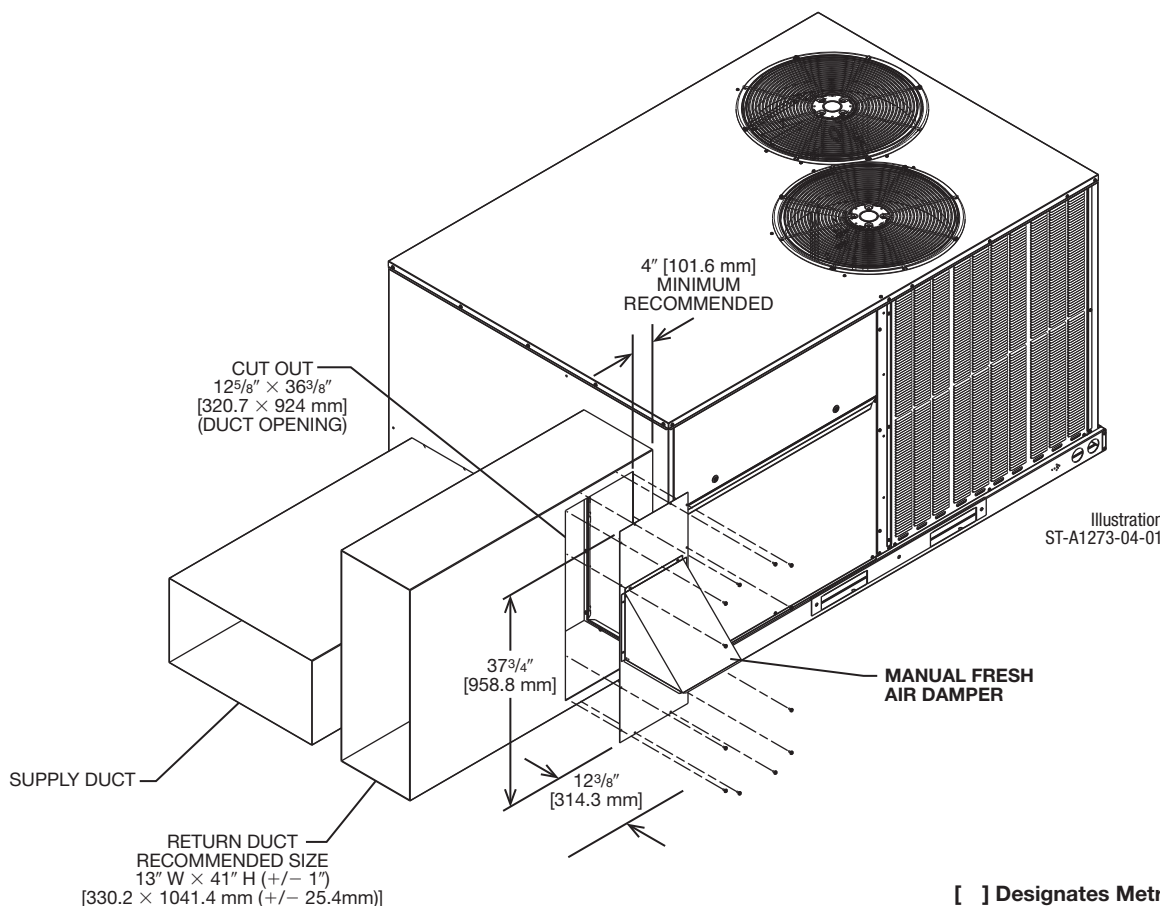


Illustration
ST-A1273-04-01

[] Designates Metric Conversions

NON-DDC ECONOMIZER W/SINGLE ENTHALPY (HORIZONTAL) RUSKIN ROOFTOP SYSTEMS ECONOMIZER WITH RRS BASIC CONTROLLER Field-Installed Only

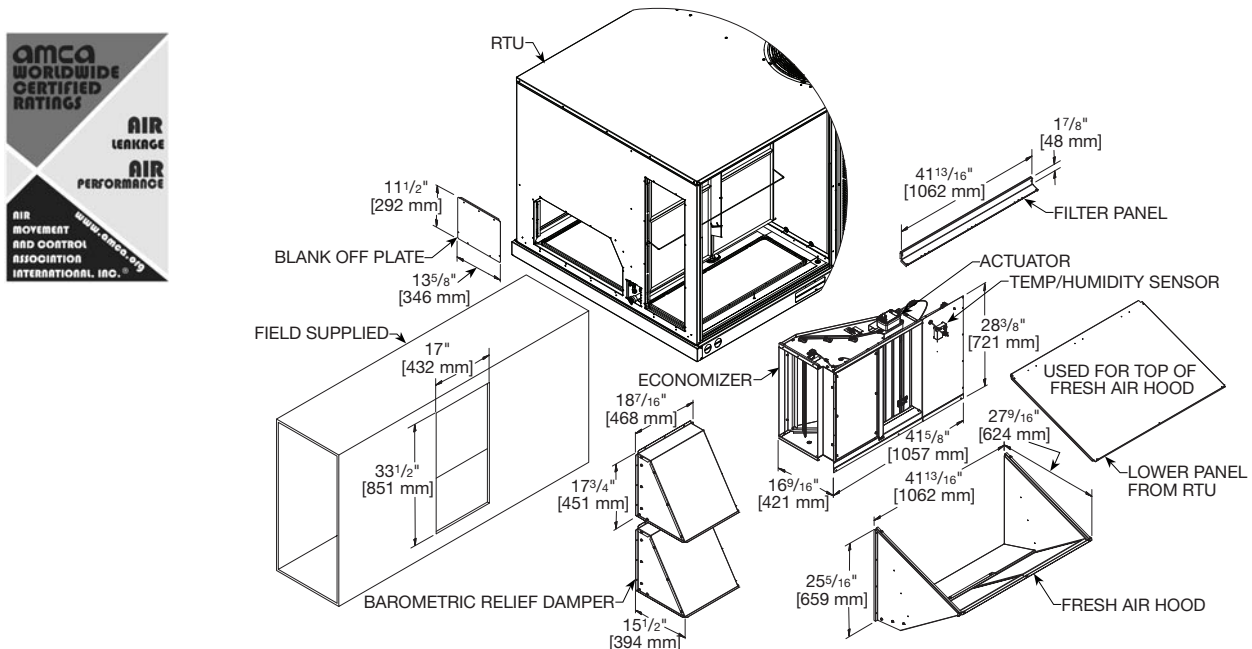
RXRD-41MDHAM3

PD955977 — Dual Enthalpy, Temperature and Humidity Sensor (for Ruskin Basic Controller)

RXXR-AR02—Sensor, Carbon Dioxide (Wall Mount)

These ultra-low leak economizer dampers meet the following minimum construction standards:

1. Frame shall be 14 to 24 gauge galvanized steel channel.
2. Damper blades are galvanized steel airfoil shaped, double skin construction of 14 gauge [2.0] equivalent thickness, 6" [152 mm] wide. Parallel action.
3. Blade edge seals shall be Ruskiprene™ type or equivalent suitable for -72°F [-60°C] to +275°F [+135°C] mechanically locked into the blade edge. Adhesive or clip-on type seals are unacceptable.
4. Jamb seals shall be flexible metal, compression type to prevent leakage between blade end and damper frame. Blade end overlapping frame is unacceptable.
5. Bearings shall be stainless steel or nylon bushing.
6. Axles shall be hexagonal positively locked into the damper blade.
7. Drive mechanism shall be concealed out of airstream to reduce pressure drop and noise.
8. Economizer damper is tested and rated based upon AMCA Publication 500-D.
9. RRS controls feature the Basic economizer controller with 24V actuator. Controls capable of Economizer Fault Detection and Diagnostics for code compliance.
10. Damper shall meet the leakage requirements of the International Energy Conservation Code by leaking less than 3 cfm/sq. ft. at 1" of static pressure and shall be AMCA licensed as a class 1A damper. Complies with reliability and performance requirements as specified by the California Energy Commission's Title 24 Standard and ASHRAE 90.1 2022. Economizer dampers shall be Ruskin Rooftop Systems ECD60 model.
11. Can be Converted to DDC Operation with the Economizer Universal DDC Interface Kit (RXXR-DDC01).



[] Designates Metric Conversions

NON-DDC ECONOMIZER W/SINGLE ENTHALPY (HORIZONTAL) RUSKIN ROOFTOP SYSTEMS ECONOMIZER WITH SIEMENS CONTROLLER

Field-Installed Only

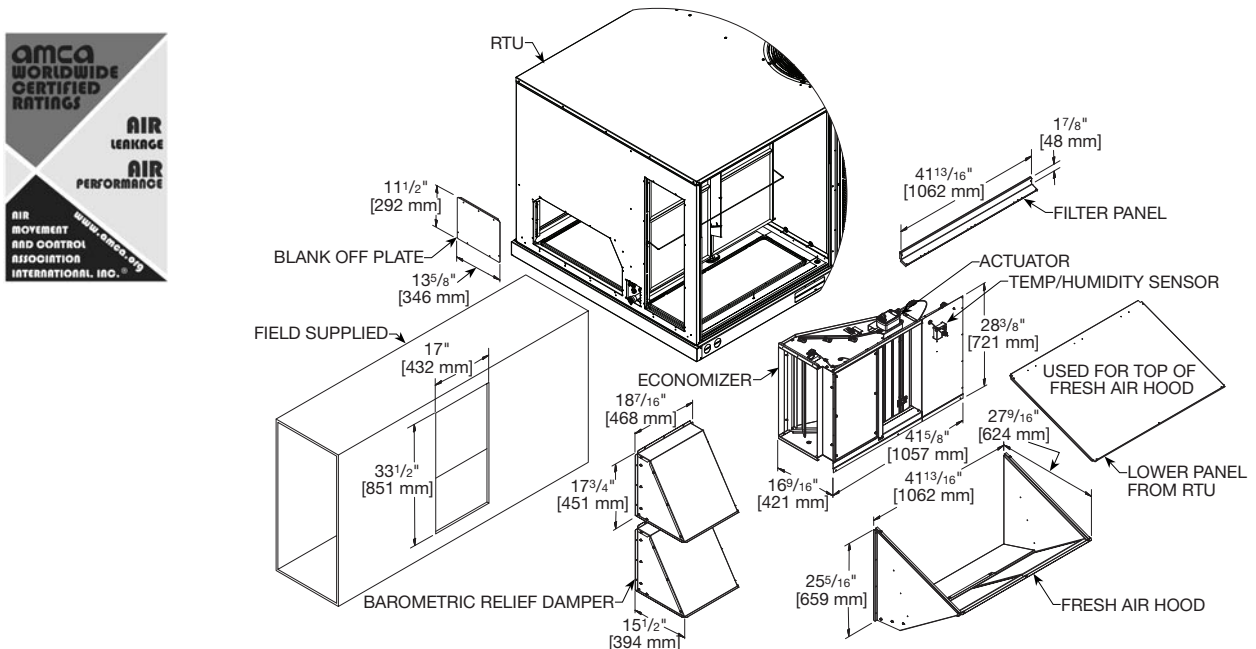
RXRD-51MDHAM3

PD555460—Dual Enthalpy, Temperature and Humidity Sensor (for Siemens Controller)

RXXR-AR02—Sensor, Carbon Dioxide (Wall Mount)

These ultra-low leak economizer dampers meet the following minimum construction standards:

1. Frame shall be 14 to 24 gauge galvanized steel channel.
2. Damper blades are galvanized steel airfoil shaped, double skin construction of 14 gauge [2.0] equivalent thickness, 6" [152 mm] wide. Parallel action.
3. Blade edge seals shall be Ruskiprene™ type or equivalent suitable for -72°F [-60°C] to +275°F [+135°C] mechanically locked into the blade edge. Adhesive or clip-on type seals are unacceptable.
4. Jamb seals shall be flexible metal, compression type to prevent leakage between blade end and damper frame. Blade end overlapping frame is unacceptable.
5. Bearings shall be stainless steel or nylon bushing.
6. Axles shall be hexagonal positively locked into the damper blade.
7. Drive mechanism shall be concealed out of airstream to reduce pressure drop and noise.
8. Economizer damper is tested and rated based upon AMCA Publication 500-D.
9. RRS controls feature the Basic economizer controller with 24V actuator. Controls capable of Economizer Fault Detection and Diagnostics for code compliance.
10. Damper shall meet the leakage requirements of the International Energy Conservation Code by leaking less than 3 cfm/sq. ft. at 1" of static pressure and shall be AMCA licensed as a class 1A damper. Complies with reliability and performance requirements as specified by the California Energy Commission's Title 24 Standard and ASHRAE 90.1 2022. Economizer dampers shall be Ruskin Rooftop Systems ECD60 model.
11. Can be Converted to DDC Operation with the Economizer Universal DDC Interface Kit (RXXR-DDC01).



[] Designates Metric Conversions

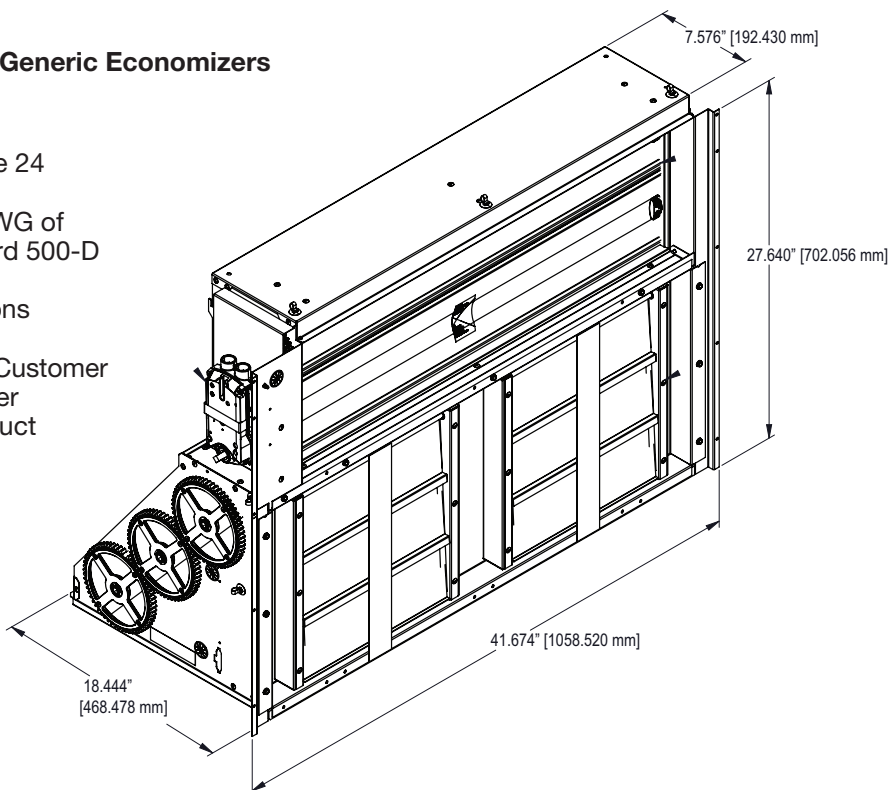
NON-DDC ECONOMIZER WITH NO CONTROLS (DOWNFLOW) MICROMETL ECONOMIZER, BELIMO ACTUATOR

Field-Installed Only

RXRD-31MDDAM3

RXXRX-ACD01 – Wire Harness for Non-DDC Generic Economizers

- Gear Driven Direct Drive Actuator
- Fully Modulating (0-100%)
- Ultra Low Leak Dampers meet California Title 24 requirements and ASHRAE 90.1 2022
- AMCA S11 Certified Class 1A Leakage - 1" WG of differential pressure tested to AMCA Standard 500-D
- Slip-In Design for Easy Installation
- Plug-In Polarized 12-pin Electrical Connections
- Standard Barometric Relief Damper
- Controller and Sensors to be determined by Customer
- Field Assembled Hood Ships with Economizer
- Economizer Ships Complete for Downflow Duct Application
- Field Installed Power Exhaust Option



DDC ECONOMIZER WITH SINGLE-ENTHALPY (DOWNFLOW) MICROMETL ECONOMIZER WITH HONEYWELL CONTROLLER

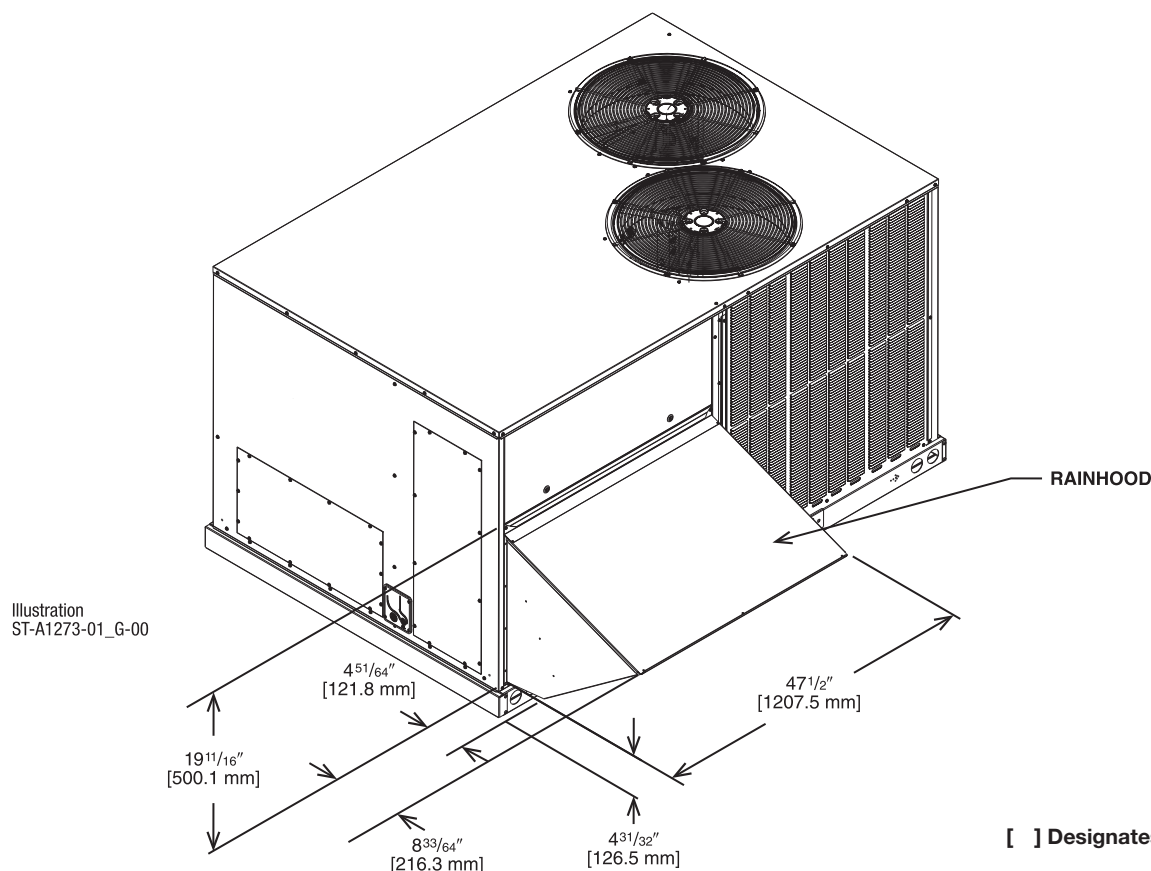
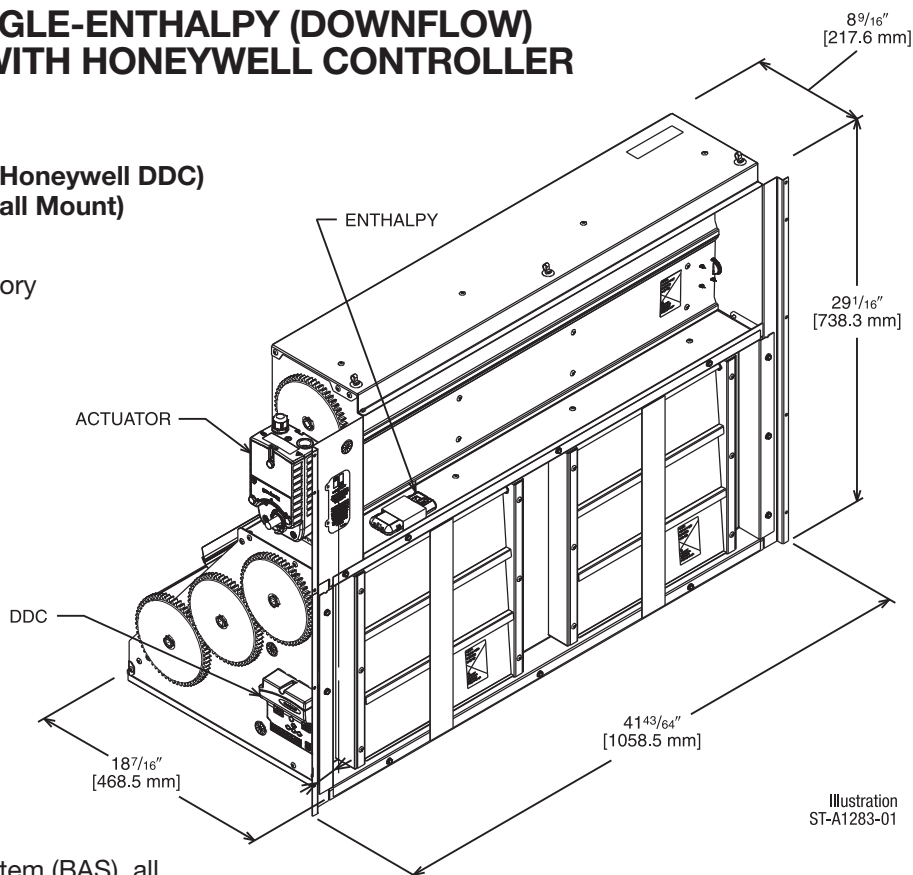
Factory or Field-Installed

RXRD-01MDDBM3

RXXRX-BV02—Dual Enthalpy Kit DDC (for Honeywell DDC)

RXXRX-AR02—Sensor, Carbon Dioxide (Wall Mount)

- Features **Honeywell** Controls
- Available Factory Installed or Field Accessory
- Gear Driven Direct Drive Actuator
- Fully Modulating (0-100%)
- Ultra Low Leak Dampers meet California Title 24 requirements
- Slip-In Design for Easy Installation
- Standard Barometric Relief Damper
- Single Enthalpy with Dual Enthalpy Upgrade Kit Option
- CO₂ Input Sensor Option
- Field Assembled Hood Ships with Economizer
- Economizer Ships Complete for Downflow Duct Application
- Optional Remote Minimum Position Potentiometer (270 ohm) (Honeywell #S963B1136) is Available from Prostock
- Field Installed Power Exhaust Option
- Prewired for Smoke Detector
- If connected to a Building Automation System (BAS), all economizer functions can be viewed on the (BAS), or 16 x 2 LCD screen
- If connected to thermostat, all economizer functions can be viewed on 16 x 2 LCD screen



[] Designates Metric Conversions

DDC ECONOMIZER W/SINGLE ENTHALPY (HORIZONTAL) MICROMETL ECONOMIZER WITH HONEYWELL CONTROLLER

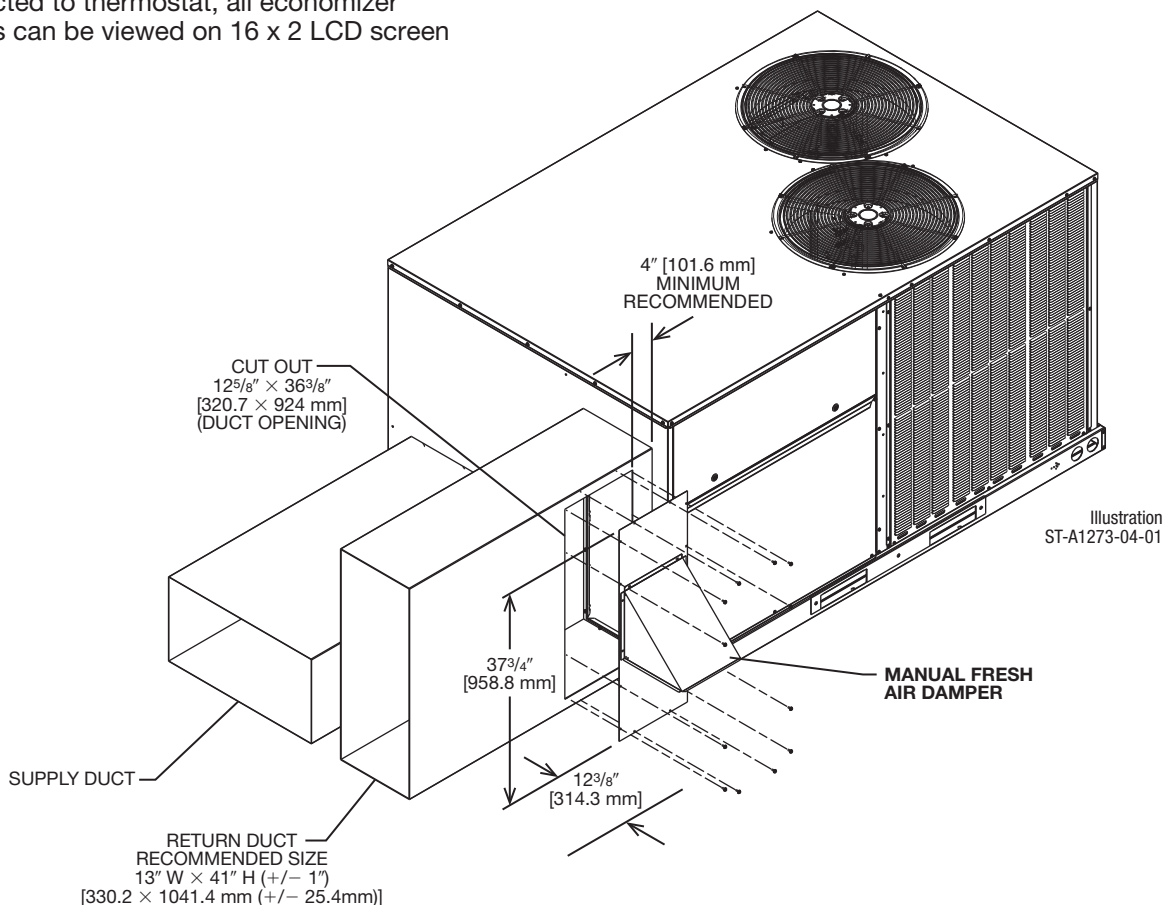
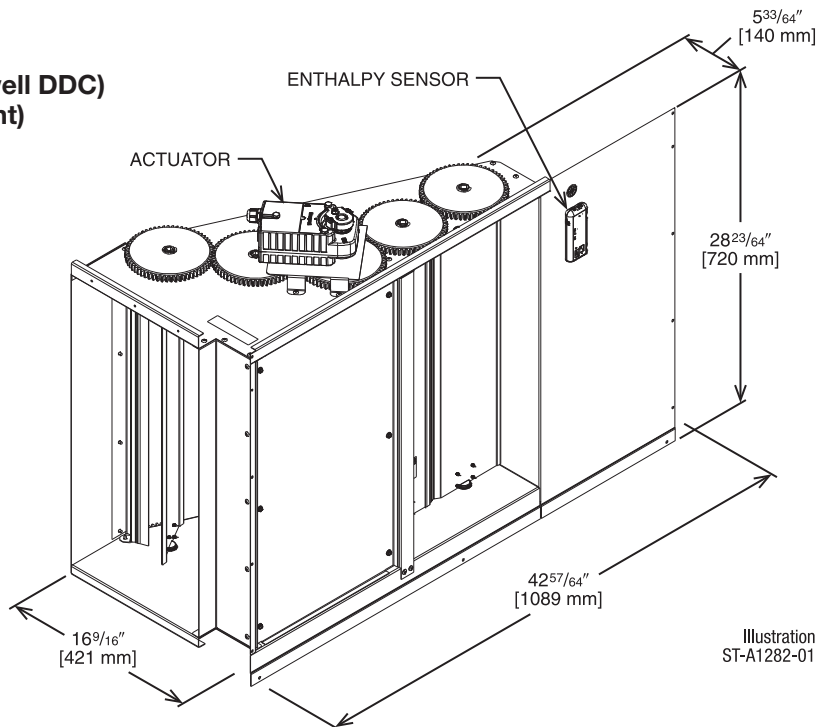
Field Installed Only

RXRD-01MDHBM3

RXRX-BV02—Dual Enthalpy Kit DDC (for Honeywell DDC)

RXRX-AR02—Sensor, Carbon Dioxide (Wall Mount)

- Features **Honeywell** Controls
- Available as a Field Installed Accessory Only
- Gear Driven Direct Drive Actuator
- Fully Modulating (0-100%)
- Ultra Low Leak Dampers meet California Title 24 requirements
- Slip-In Design for Easy Installation
- Standard Barometric Relief Damper
- Single Enthalpy with Dual Enthalpy Upgrade Kit Option
- CO₂ Input Sensor Option
- Field Assembled Hood Ships with Economizer
- Economizer Ships Complete for Horizontal Duct Application
- Optional Remote Minimum Position Potentiometer (270 ohm) (Honeywell #S963B1136) is Available from Prostock
- Field Installed Power Exhaust Option
- If connected to a Building Automation System (BAS), all economizer functions can be viewed on the (BAS), or 16 x 2 LCD screen
- If connected to thermostat, all economizer functions can be viewed on 16 x 2 LCD screen



[] Designates Metric Conversions

ECONOMIZER UNIVERSAL DDC INTERFACE KIT

Available Factory or Field Installed

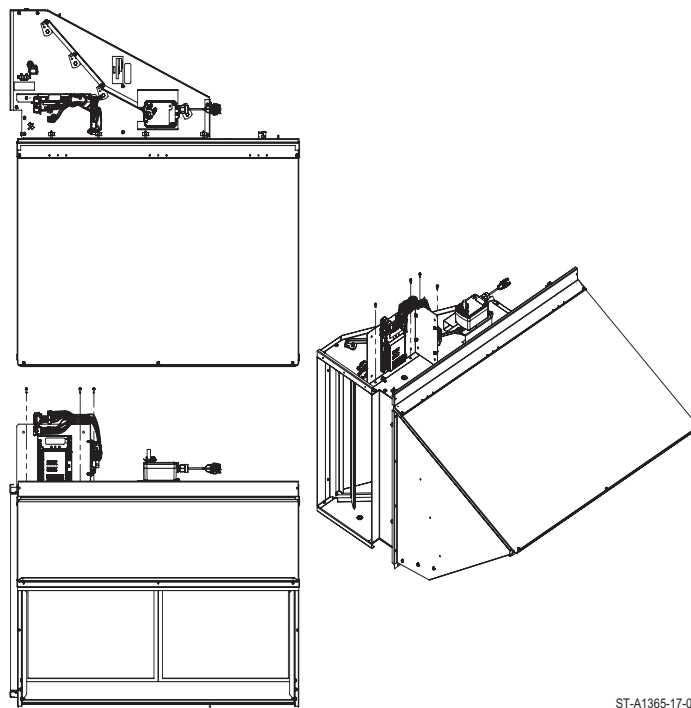
RXXRX-DDC01

- Allows any Non-DDC Economizer to be used with a ClearControl DDC model
- Mounts on the Economizer
- Provides Mounting location for Economizer Controller
- Provides wire management for excess wire

NOTE: Older DDC Models, prior to A2L, may require a field update to the ClearControl Software. The minimum version required is 3.15. A2L Models will come with software version 4.0 or higher.

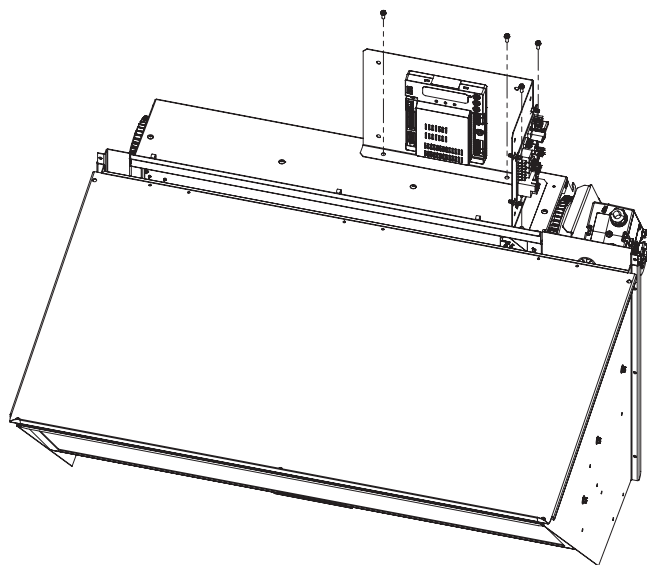
Drawings shown here may not be an exact representation of every economizer.

HORIZONTAL FLOW DDC BRACKET SETUP



ST-A1365-17-00

DOWNFLOW ECONOMIZER DDC BRACKET SETUP



ST-A1365-13-01

FRESH AIR DAMPER
FRESH AIR DAMPER, MANUAL
RXRF-ADA1

DOWNFLOW APPLICATION

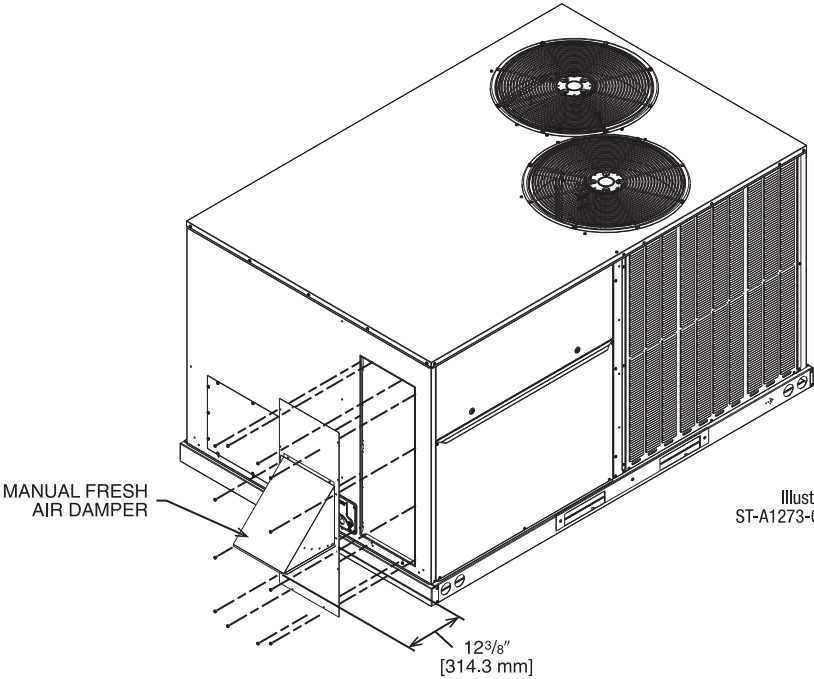


Illustration
ST-A1273-03-00

HORIZONTAL APPLICATION

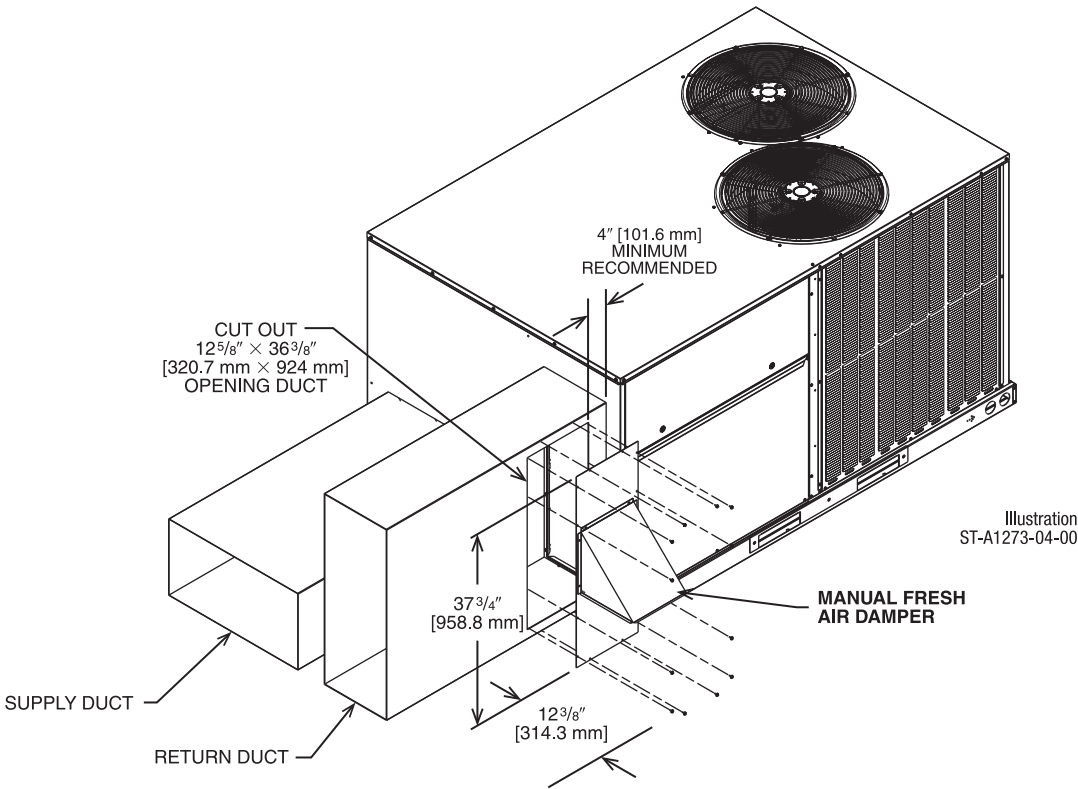


Illustration
ST-A1273-04-00

[] Designates Metric Conversions

FRESH AIR DAMPER

FRESH AIR DAMPER, MOTORIZED RXRF-ADB1

FRESH AIR DAMPER, MOTORIZED (DDC) RXRF-ADC1 (Modulating Motor Kit with position feedback for DDC Models)

- Features **Honeywell** Controls
- Gear Driven Direct Drive Actuator
- Fully Modulating (0-100%)
- Low Leakage Dampers
- Slip-In Design for Easy Installation
- Plug-In Polarized 12-pin and 4-pin Electrical Connections
- Pre-Configured—No Field Adjustments Necessary
- Addition of Dual Enthalpy Upgrade Kit allows limited economizer function
- CO₂ Sensor Input Available for Demand Control Ventilation (DCV)
- Optional Remote Minimum Position Potentiometer (270 ohm) (Honeywell #S963B1136) is available from Prostock
- All fresh air damper functions can be viewed at the RTU-C unit controller display
- If connected to a Building Automation System (BAS), all fresh air damper functions can be viewed on the (BAS)

[] Designates Metric Conversions

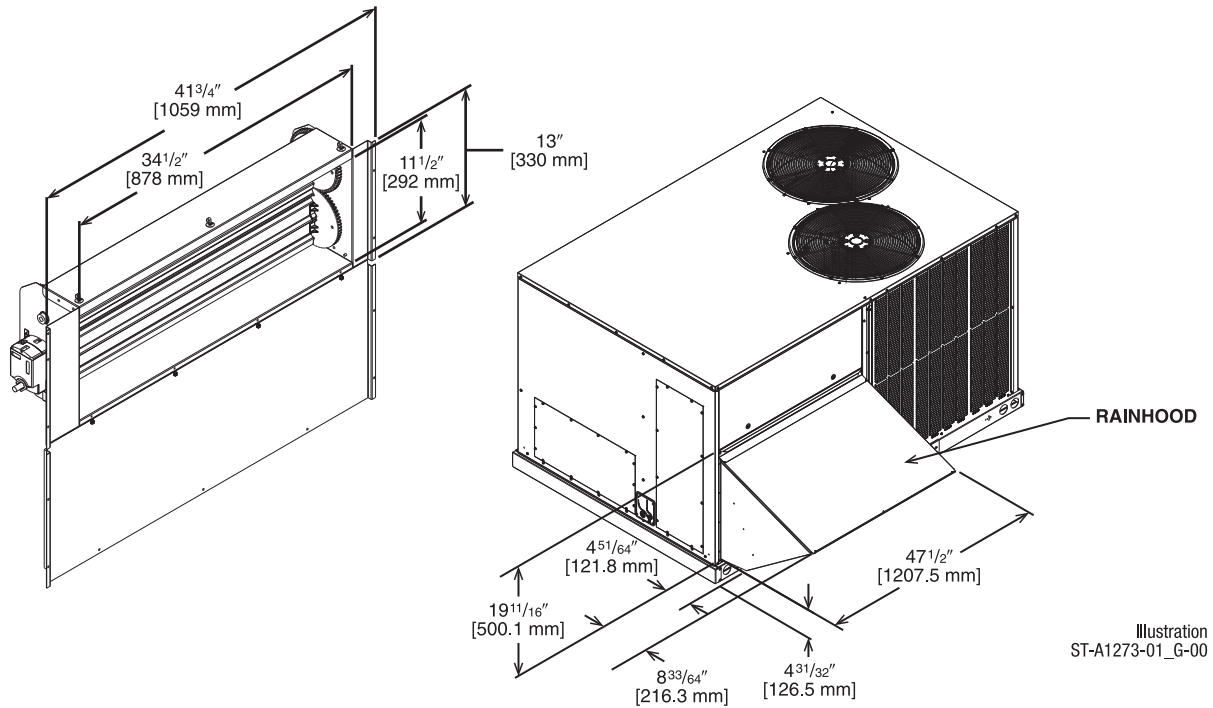


Illustration
 ST-A1273-10-00

Illustration
 ST-A1273-01_G-00

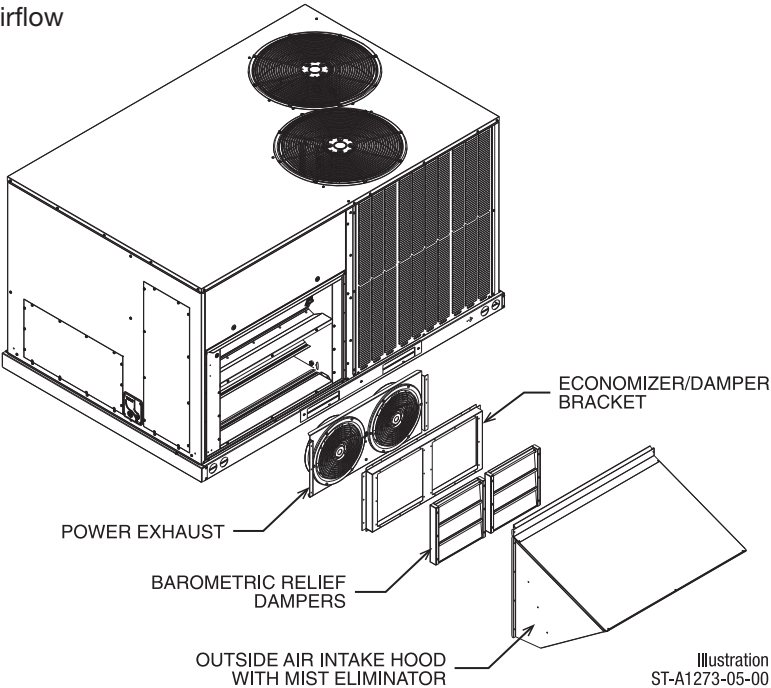
POWER EXHAUST KIT, CONVERTIBLE

RXXR-CDF01*

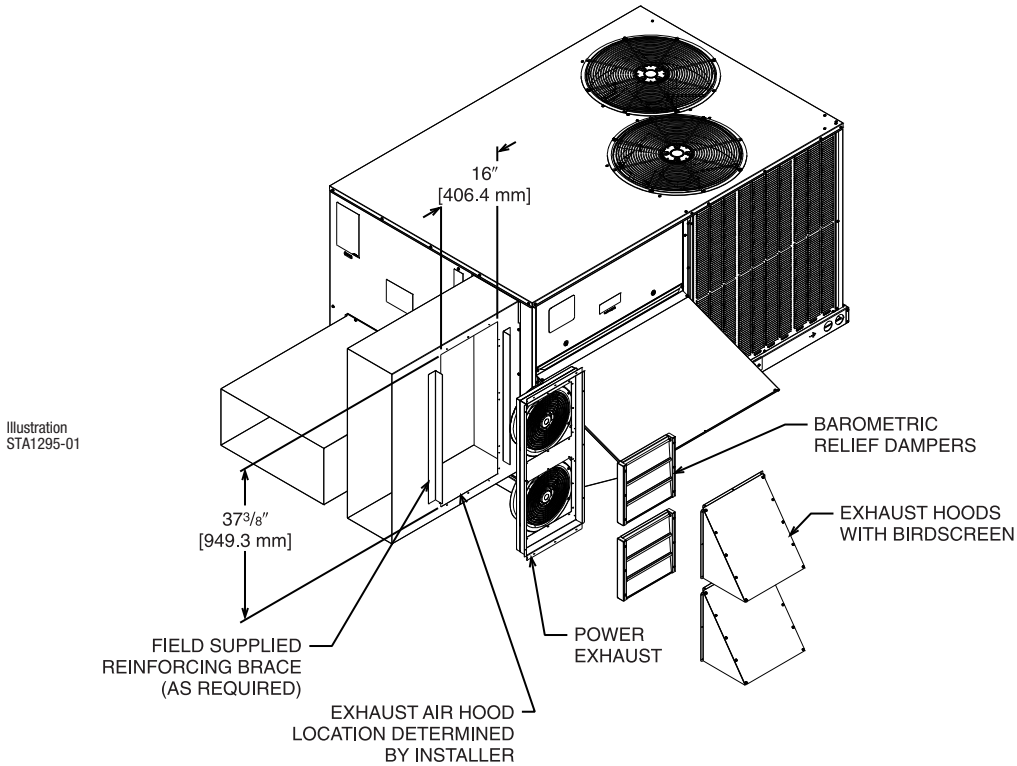
*Voltage Code: C or D

- Convertible between vertical airflow and horizontal airflow
- Compatible with all D-cabinet economizers
- Economizer sold separately

VERTICAL AIRFLOW INSTALLATION



HORIZONTAL AIRFLOW INSTALLATION



Model No.	No. of Fans	Volts	Phase	HP (ea.)	CFM [L/s]*	RPM	FLA (ea.)	LRA (ea.)
RXXR-CDF01C	2	208/230	1	0.47	2200	3000	1.55	1.1
RXXR-CDF01D	2	460	3	0.40	1970	2750	0.51	1.9

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

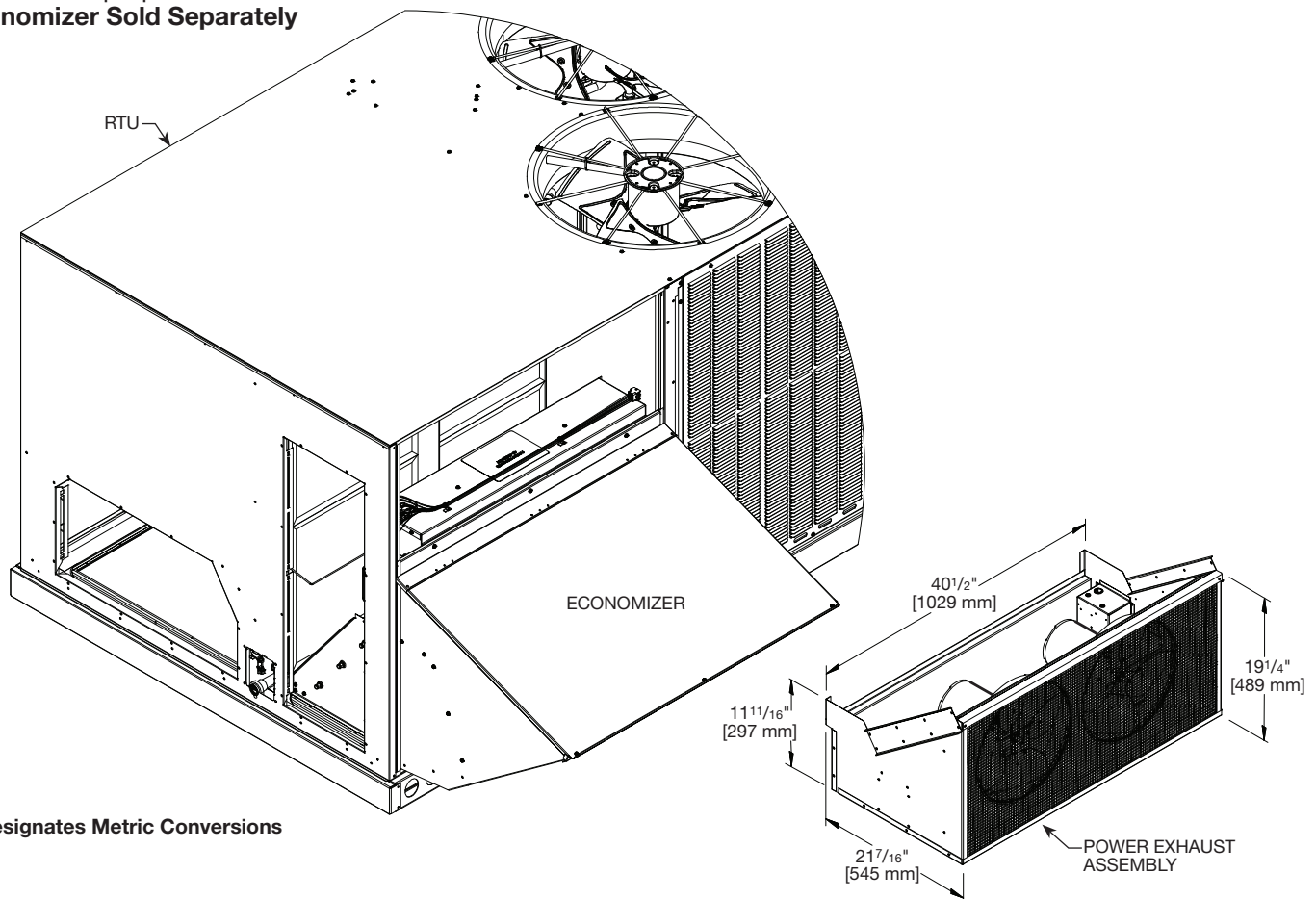
[] Designates Metric Conversions

POWER EXHAUST KIT FOR DOWNFLOW ECONOMIZER

RXXR-RDF01*

*Voltage Code: C, D, or Y

- Shipped completely assembled
- All wiring from control box to economizer is supplied
- Color coordinated with the unit
- Fully insulated with 1" 1.5 lb. fiberglass insulation
- Motors are factory wired and tested
- The powered exhaust sits below the unit base rails by 5 inches. Consider roof surface clearance before purchasing
- When using this power exhaust system, clearance between the bottom of the unit and finished roof deck should be a minimum of 10 inches. Some applications may require a taller roof curb for proper installation
- **Economizer Sold Separately**



[] Designates Metric Conversions

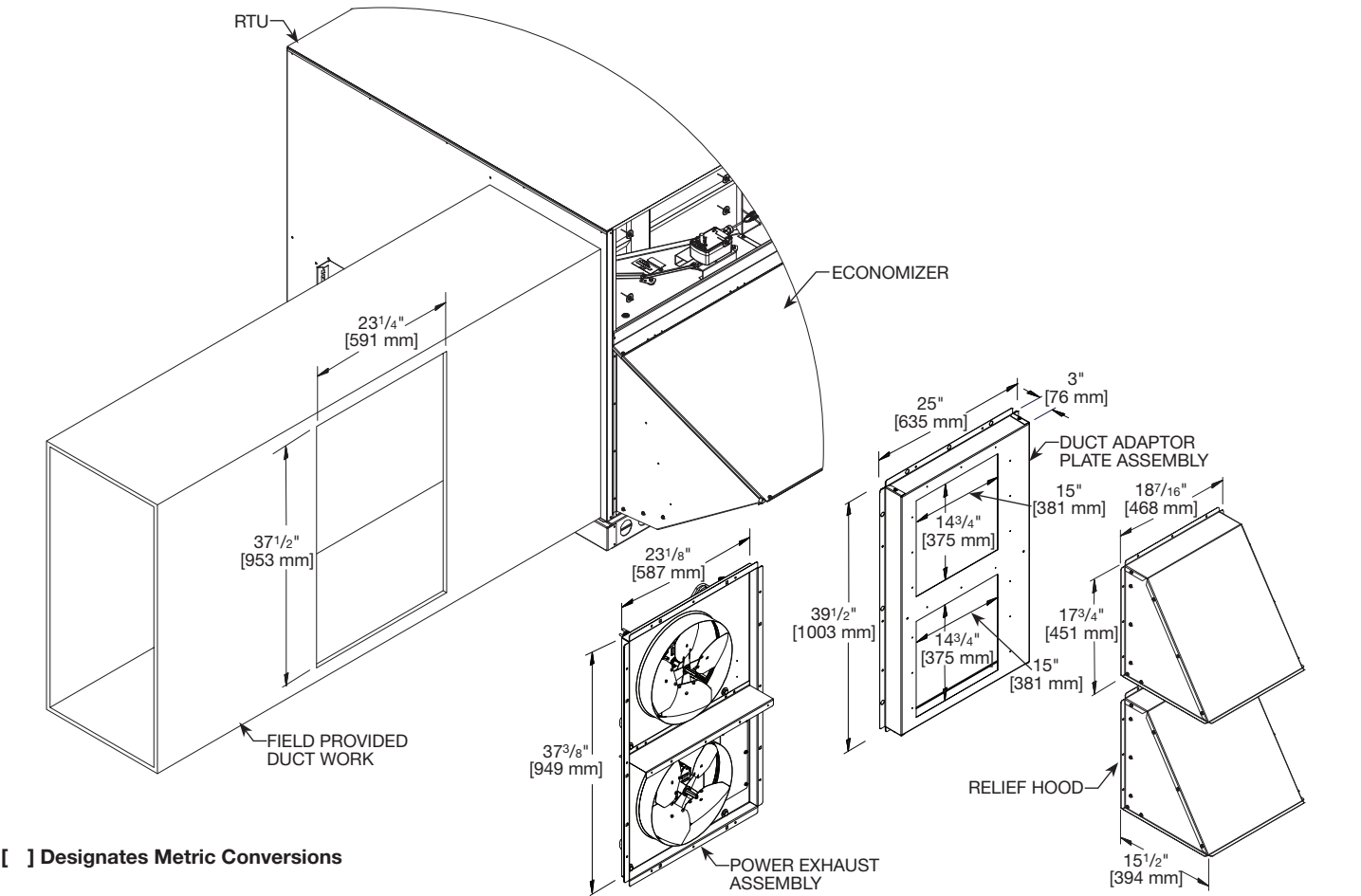
Model No.	Volt	Phase	Motor				Unit				@ 0.1 CFM
			HP	RPM	LRA	Qty.	Cir. Qty.	FLA	MCA	Fuse Size	
RXXR-RDF01C	208/230	1	1/2	1625	5.86	2	1	5.40	6.75	8	4013
RXXR-RDF01D	460				3.33			2.68	3.35	4	
RXXR-RDF01Y	575				2.52			2.12	2.65	3	

POWER EXHAUST KIT FOR HORIZONTAL ECONOMIZER

RXXR-RDF03*

*Voltage Code: C, D, or Y

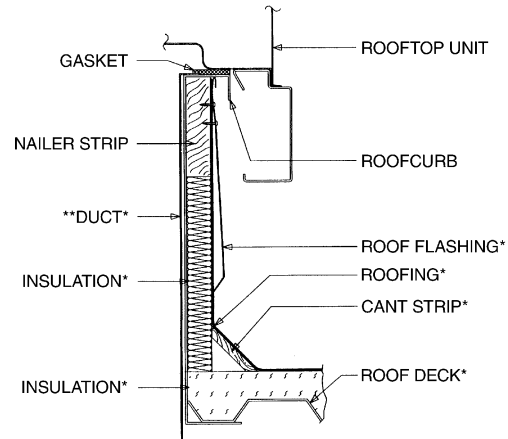
- Shipped completely assembled
- All wiring from control box to economizer is supplied
- Color coordinated with the unit
- Fully insulated with 1" 1.5 lb. fiberglass insulation
- Motors are factory wired and tested
- When using this power exhaust system, clearance between the bottom of the unit and finished roof deck should be a minimum of 10 inches. Some applications may require a taller roof curb for proper installation
- Economizer with Relief Hood Sold Separately



Model No.	Volt	Phase	Motor				Unit				@ 0.1 CFM
			HP	RPM	LRA	Qty.	Cir. Qty.	FLA	MCA	Fuse Size	
RXXR-RDF03C	208/230	1	1/2	1625	5.86	1	1	2.70	3.38	6	2013
RXXR-RDF03D	460				3.33			1.34	1.68	3	
RXXR-RDF03Y	575				2.52			1.06	1.33	2	

ROOFCURBS (Full Perimeter)

- Friedrich®'s roofcurb design can be utilized on all 7.5-12.5 ton [26.4-44.0 kW] RACD models
- Two available heights (14" [356 mm] and 24" [610 mm]) for ALL models
- Quick assembly corners for simple and fast assembly
- Opening provided in bottom pan to match the "Thru the Curb" electrical connection opening provided on the unit base pan
- 1" [25 mm] x 4" [102 mm] Nailers provided
- Insulating panels not required because of insulated outdoor base pan
- Sealing gasket (40' [12.2 m]) provided with Roofcurb
- Packaged for easy field assembly



*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

Roofcurbs View	Roofcurb Model	Height of Curb
A	RXKG-DDD14	14" [356 mm]
A	RXKG-DDD24	24" [610 mm]

ROOFCURB INSTALLATION

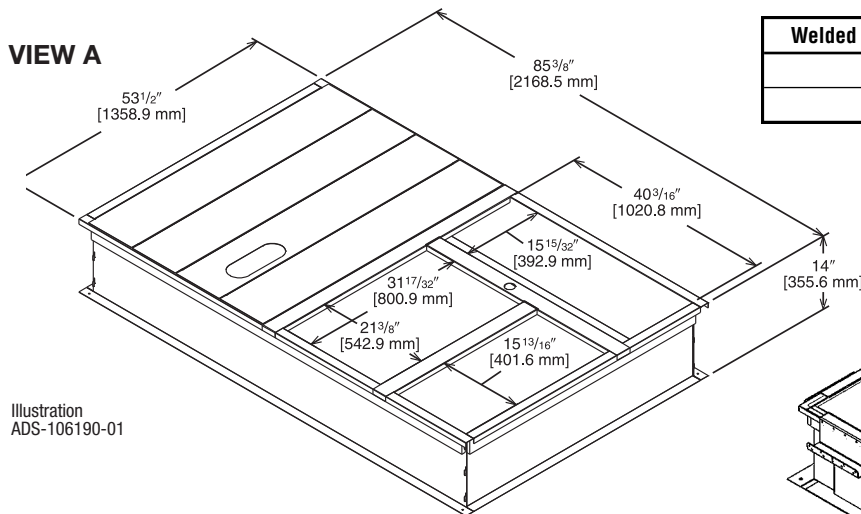
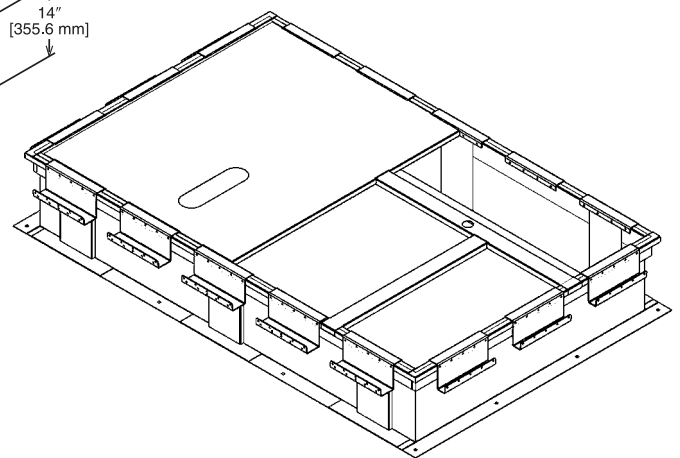


Illustration
ADS-106190-01

Welded Roofcurbs View	Roofcurb Model	Dimensions
B	RXKG-SD14	85.375" x 53.5" x 14.0"
B	RXKG-SD24	85.375" x 53.5" x 24.0"

WELDED ROOFCURB VIEW B



- State of Florida Approved: Approval Number FL 26981.1 for Technical Evaluation Report TER-20-28788 certifies the HVAC Unit and mounting methods for high wind resistance are compliant per Florida Building Code.
- OSHPD Approved: State of California Product Approval Number OSP-06660-TEMP00 for Technical Evaluation Report 1700876-CR-001-RO certifies the HVAC Unit and MicroMetl Welded Roof Curb is earthquake resistance compliant and approved for use per International Code Council – Evaluation Service AC156, IBC, AND CBC building code standards.

[] Designates Metric Conversions

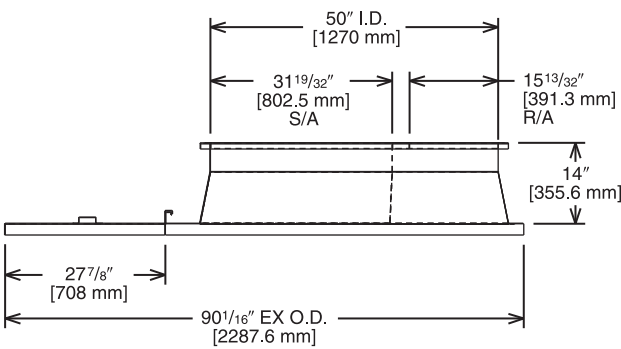
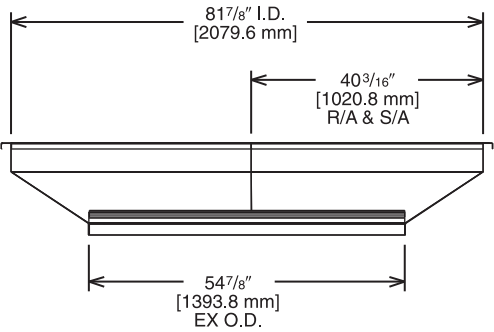
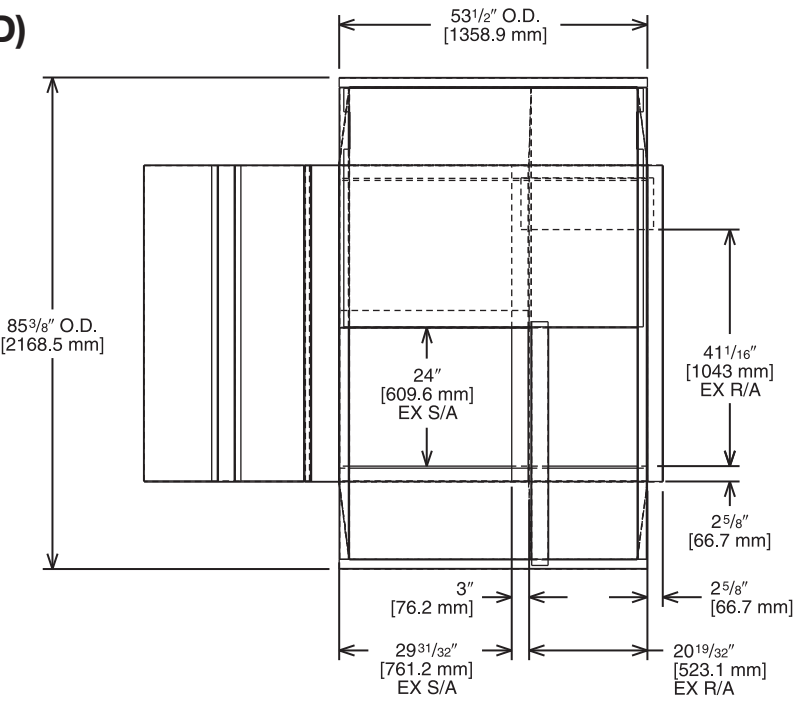
ROOFCURB ADAPTERS (CONTINUED)

RXRX-DDCAE

Illustration
ADS-106176-01
SHEET 2

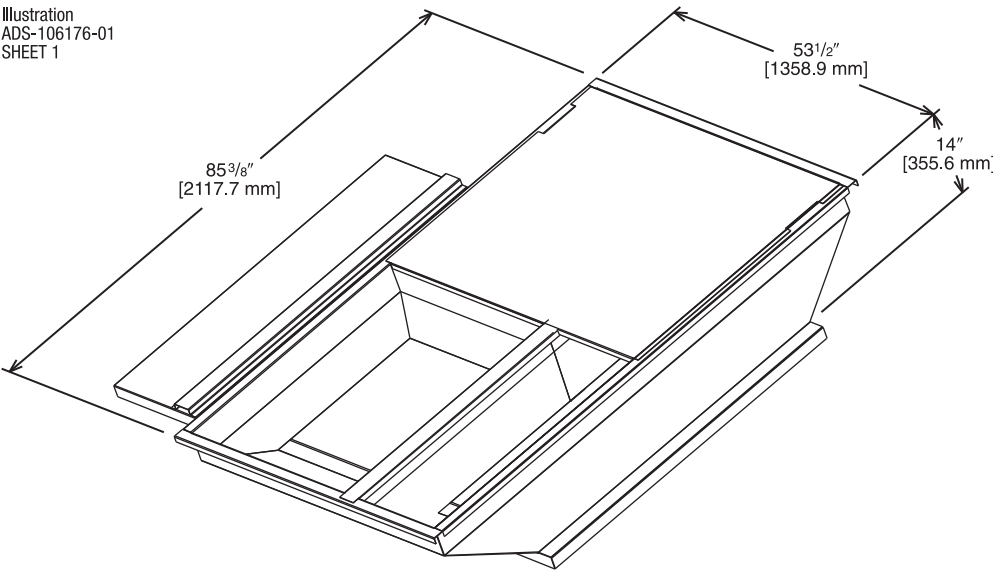
APPROXIMATE STATIC PRESSURE DROP

@2,000 = 0.06" w.g.
@3,000 = 0.12" w.g.
@4,000 = 0.22" w.g.
@5,000 = 0.36" w.g.



TOP VIEW

Illustration
ADS-106176-01
SHEET 1



[] Designates Metric Conversions

Guide Specifications RACDYB— 090-150

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ELECTRIC HEAT PACKAGED ROOFTOP

HVAC Guide Specifications

Size Range: 7 ½ to 12 ½ Nominal Tons

- 1.00 General:
 - A. Outdoor, rooftop mounted, electrically controlled, heating and cooling unit utilizing a(n) hermetic scroll compressor(s) for cooling duty and heat pump for heating duty.
 - B. Factory assembled, single-piece heating and cooling rooftop unit. Contained within the unit enclosure shall be all factory wiring, piping, controls, and special features required prior to field start-up.
 - C. Unit shall use environmentally safe, R-454B refrigerant.
 - D. Unit shall be installed in accordance with the manufacturer’s instructions.
 - E. Unit must be selected and installed in compliance with local, state, and federal codes.
 - F. Model and serial data shall be printed inside the control box.
- 1.01 Quality Assurance:
 - A. Unit meets ASHRAE 90.1 2022 minimum efficiency requirements.
 - B. Unit shall be rated in accordance with AHRI Standards 340/360.
 - C. Unit shall be designed to conform to ASHRAE 15.
 - D. Unit shall be UL-tested and certified in accordance with Standards and UL-listed and certified under Canadian standards as a total package for safety requirements.
 - E. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.
 - F. Unit casing shall be capable of withstanding 1000-hour salt spray exposure per ASTM B117 (scribed specimen).
 - G. Roof curb shall be designed to conform to NRCA Standards.
 - H. Unit shall be subjected to a completely automated run test on the assembly line. The data for each unit will be stored at the factory, and must be available upon request.
 - I. Unit shall be designed in accordance with UL Standard 60335-2-40 4th Edition. including tested to withstand rain.
 - J. Unit shall be constructed to prevent intrusion of snow and tested to prevent snow intrusion into the control box up to 40 mph.
- 1.02 Manufacturer Qualifications
 - A. Unit shall be designed in accordance with ISO 9001:2015, and shall be manufactured in a facility registered by ISO 9001:2015.
- 1.03 Installer Qualifications
 - A. The installer shall be trained to install and service equipment with A2L refrigerants.
- 1.04 Delivery, Storage, and Handling:
 - A. Unit shall be stored and handled per manufacturer’s recommendations.
 - B. Unit lifted by crane requires either shipping top panel or spreader bars.
 - C. Unit shall only be stored or positioned in the upright position.
- 1.05 Unit Cabinet:
 - A. Unit cabinet shall be constructed of galvanized steel.
 - B. Unit cabinet exterior paint shall be pre-painted steel.
 - C. The sheet-metal cabinet shall be constructed of 18-gauge material for structural components with an underlying coat of G90.
 - D. Evaporator fan compartment interior cabinet insulation shall conform to AHRI Standards 210 or 360 minimum exterior sweat criteria. Interior surfaces shall be insulated with a minimum 1/2-in. thick, 1.6 lbs density, flexible fiberglass insulation, foil faced on the air side. Aluminum foil-faced fiberglass insulation shall be used in the gas heat compartment.
 - E. Shall utilize uniform screw sizing.
 - F. Base of unit shall have a location for thru-the-base gas and electrical connections standard.

- G. Base Rail:
 - i. Unit shall have base rails on a minimum of 4 sides.
 - ii. Holes shall be provided in the base rails for rigging shackles to facilitate maneuvering and overhead rigging.
 - iii. Holes shall be provided in the base rail for moving the rooftop for fork truck.
 - iv. Base rail shall be a minimum of 14 gauge thickness.
- H. Condensate pan and connections:
 - i. Shall be a sloped condensate drain pan made of a non-corrosive material and be removable for cleaning.
 - ii. Shall comply with ASHRAE Standard 62.
 - iii. Shall use a 3/4" NPT drain connection, possible either through the bottom or side of the drain pan. Connection shall be made per manufacturer's recommendations.
 - iv. Shall be able to be easily removed.
 - v. Shall be separate from the coil.
- I. Standard factory installed condensate overflow sensor.
- J. Top panel
 - i. Shall be a single piece top panel over indoor section.
- K. Electrical Connections
 - i. All unit power wiring shall enter unit cabinet via a single, factory-prepared, continuous raised flange opening in the basepan.
 - ii. Thru-the-base capability
 - a. Standard unit shall have a thru-the-base electrical location(s) using a raised, continuous raised flange opening in the basepan.
 - b. No basepan penetration, other than those authorized by the manufacturer, is permitted.
- L. Component access panels (standard)
 - i. Cabinet panels shall be easily opened for servicing.
 - ii. Panels covering the filters shall have hinges with 1/4 turn fasteners.
 - iii. 1/4 turn fasteners shall be permanently attached.
- 1.06 Operating Characteristics:
 - A. Unit shall be capable of starting and running at 115°F (46°C) ambient outdoor temperature, meeting maximum load criteria of AHRI Standard 340/360 at ± 10% voltage.
 - B. Compressor with standard controls shall be capable of operation down to 50°F (10°C), ambient outdoor temperatures. Low ambient accessory kit is necessary if mechanically cooling at ambient temperatures to 0°F (-17.7°C).
 - C. Unit shall discharge supply air vertically or horizontally as shown on contract drawings.
 - D. Unit shall be factory configured for vertical supply & return configurations.
 - E. Unit shall be field convertible from vertical to horizontal configuration.
 - F. Unit shall be capable of mixed operation: vertical supply with horizontal return or horizontal supply with vertical return.
- 1.07 Electrical Requirements
 - A. Main power supply voltage, phase, and frequency must match those required by the manufacturer.
- 1.08 Evaporator fan compartment:
 - A. Interior cabinet surfaces shall be insulated with a minimum 1/2-in. thick, minimum 1.6 LB density, flexible fiberglass insulation bonded with foil face on the air side.
 - B. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.
 - C. Insulation shall also be mechanically fastened with welded pin and retainer washer.
- 1.09 Thermostats
 - A. Thermostat must:
 - i. Energize both "W" and "G" when calling for heat.
 - ii. Have capability to energize 1 stage of cooling, and at least 1 stage of heating.
 - iii. Include capability for occupancy scheduling.
- 1.10 Electronic Control System for HVAC:
 - A. Shall be complete with self-contained low-voltage control circuit protected by a fuse on the 24-V transformer side (090-150 units have a resettable circuit breaker).
 - B. Shall utilize color-coded wiring.
 - C. Unit shall include a minimum of one 8-pin screw terminal connection board for connection of control wiring.
 - D. Unit control board shall be provided with 7 segment readout via LCD display for status and diagnostics.

1.10.01 Safeties:

- A. Compressor over-temperature, over current.
- B. Standard Low-pressure switch:
 - i. Units shall have low pressure, loss of charge automatic reset device that will shut off compressor when tripped.
 - ii. Low pressure control:
 - a. Provides active protection in both heating and cooling modes at all outdoor ambient temperatures. The low pressure control is an automatic reset type and opens at approximately 15 psig and closes at approximately 40 psig. Operation is slightly different between cooling and heating modes.
- C. Standard High-pressure switch:
 - i. Unit shall be equipped with high pressure switch device that will shut off compressor when tripped.
 - ii. High pressure control:
 - a. The high pressure control is an automatic reset type and opens at approximately 610 psig and closes at approximately 420 psig. The compressor and fan motor will stop when the high pressure control opens and will start again if the high side pressure drops to approximately 420 psig where the automatic reset high pressure control resets. If the high pressure control opens 3 times within a particular call for heating or cooling operation, the defrost control will lock out compressor and outdoor fan operation.
- D. Automatic reset, motor thermal overload protector.
- E. The unit must be permanently grounded.
- F. Components are not compatible between different refrigerants. Do not use R-410A service equipment or components on R-454B equipment. System or part failure could occur.

1.11 Standard Filter Section:

- A. Filters shall consist of factory-installed, low velocity, throwaway 2-in. thick fiberglass filters of commercially available sizes.
- B. Unit will accept both 2-in. and 4-in. filters.
- C. Filter face velocity shall not exceed 365 fpm at nominal airflows.
- D. Filters shall be accessible through an access panel with “no-tool” removal as described in the unit cabinet section of the specification.
- E. Filters access is specified in the unit cabinet section of this specification.
- F. Filters shall be held in place by metal rods, facilitating easy removal and installation.

1.12 Coils

- A. Standard Aluminum/MicroChannel Coils:
 - i. Standard evaporator and condenser coils shall be aluminum.
 - ii. Evaporator and condenser coils shall be leak tested to 150 psig, pressure tested to 400 psig, and qualified to burst test at 2,200 psi.

1.13 Refrigerant Components:

- A. Refrigerant circuit shall include the following control, safety, and maintenance features:
 - i. TXV metering system shall prevent mal-distribution of two-phase refrigerant.
 - ii. Refrigerant filter drier.
 - iii. Service gauge connections on suction and discharge lines.
 - iv. External pressure gauge ports access shall be located in front exterior of cabinet.
 - v. External gauge ports shall be lockable.
- B. Compressors:
 - i. 090-120 units shall use one fully hermetic, 2 stage scroll compressor.
 - ii. 150 units shall use a tandem set of fully hermetic, single stage compressors.
 - iii. Compressor motors shall be cooled by refrigerant gas passing through motor windings.
 - iv. Compressors shall be internally protected from high discharge temperature conditions.
 - v. Compressors shall be protected from an over-temperature and over-amperage conditions by an internal, motor overload device.
 - vi. Compressor shall be factory mounted on rubber grommets.
 - vii. Compressor motors shall have internal line break thermal and current overload protection.
 - viii. Crankcase heaters shall not be required for normal operating range.
 - ix. Compressor shall have molded electrical plug.

- 1.14 Evaporator Fan and Motor:
 - A. Evaporator Fan Motor:
 - i. Shall have permanently lubricated bearings.
 - ii. Shall have inherent automatic-reset thermal overload protection.
 - iii. Shall have a maximum continuous bhp rating for continuous duty operation; no safety factors above that rating shall be required.
 - B. Direct Drive Evaporator Fan:
 - i. Belt drive shall include an adjustable-pitch motor pulley.
 - ii. Shall use sealed, permanently lubricated ball-bearing type.
 - iii. Blower fan shall be double-inlet type with forward-curved blades.
 - iv. Shall be constructed from steel with a corrosion resistant finish and dynamically balanced.
 - C. Blower Assembly:
 - i. Entire assembly shall be able to slide out completely.
 - ii. Shall be able to slide-out without the removal of the roof and condenser fan motors.
- 1.15 Condenser Fans and Motors:
 - A. Condenser Fan Motors:
 - i. Shall be a totally enclosed motor.
 - ii. Shall use permanently lubricated bearings.
 - iii. Shall have inherent thermal overload protection with an automatic reset feature.
 - iv. Shall use a shaft-down design. Shaft-up designs including those with "rain-slinger devices" shall not be allowed.
 - B. Condenser Fans:
 - i. Shall be a direct-driven propeller type fan.
 - ii. Shall have blades riveted to corrosion-resistant steel spiders and shall be dynamically balanced.
- 1.16 RTU-C Controller:
 - A. Shall be ASHRAE 62-2001 compliant.
 - B. Shall accept 18-32VAC input power.
 - C. Shall have an operating temperature range from -40°F (-40°C) to 158°F (70°C), 10%–95% RH (non-condensing).
 - D. Controller shall accept the following inputs: space temperature, setpoint adjustment, outdoor air temperature, indoor air quality, outdoor air enthalpy, fire shutdown, return air enthalpy, fan status, remote time clock/door switch.
 - E. Shall accept a CO2 sensor in the conditioned space, and be Demand Control Ventilation (DCV) ready.
 - F. Shall provide the following outputs: Economizer, fan, cooling stage 1, cooling stage 2, heat stage 1, heat stage 2, exhaust, occupied.
 - G. Unit shall provide surge protection for the controller through a circuit breaker.
 - H. Shall have a field installed communication card allowing the unit to be able to communicate at a Baud rate of 19.2K or faster.
 - I. Shall have an LED display independently showing the status of activity on the communication bus, and processor operation.
 - J. Optional field installed BACnet plug-in communication card which includes an EIA-485 protocol communication port, or an optional field installed LonWorks plug-in communications card.
 - K. Software upgrades will be accomplished by local download. Software upgrades through chip replacements are not allowed.
 - L. Shall be shock resistant in all planes to 5G peak, 11ms during operation, and 100G peak, 11ms during storage.
 - M. Shall be vibration resistant in all planes to 1.5G @ 20-300 Hz.
 - N. Shall support a bus length of 4000 ft max, 60 devices per 1000 ft section, and 1 RS-485 repeater per 1000 ft sections.
- 1.17 Open Protocol, Direct Digital Controller:
 - A. Shall be ASHRAE 62-2001 compliant.
 - B. Shall accept 18-30VAC, 50-60Hz, and consumer 15VA or less power.
 - C. Shall have an operating temperature range from -40°F (-40°C) to 130°F (54°C), 10% - 90% RH (non-condensing).
 - D. Shall have either a field installed BACnet plug-in communication card which includes an EIA-485 protocol communication port, or a field installed LonWorks plug-in communications card.
 - E. The BACnet plug in communication card shall include built-in protocol for BACnet (MS/TP and PTP modes).
 - F. The LonWorks plug in communication card shall include the Echelon processor required for all Lon applications.
 - G. Shall allow access of up to 62 network variables (SNVT). Shall be compatible with all open controllers.

- H. Baud rate Controller shall be selectable through the EIA-485 protocol communication port.
 - I. Shall have an LED display independently showing the status of serial communication, running, errors, power, all digital outputs, and all analog inputs.
 - J. Shall accept the following inputs: space temperature, setpoint adjustment, outdoor air temperature, indoor air quality, outdoor air enthalpy, compressor lock-out, fire shutdown, enthalpy switch, and fan status/filter status/humidity/remote occupancy.
 - K. Shall provide the following outputs: economizer, fan, cooling stage 1, cooling stage 2, heat stage 1, heat stage 2, exhaust.
 - L. Software upgrades will be accomplished by either local or remote download. No software upgrades through chip replacements are allowed.
 - M. Shall be natively equipped with Modbus communication protocol.
- 1.18 Adjustable Frequency Drive:
- A. Unit shall be supplied with an electronic variable frequency drive for the supply air fan.
 - B. Drive shall be factory installed in an enclosed cabinet.
 - C. Drive shall meet UL Standard 60335-2-40 4th Edition.
 - D. The completed unit assembly shall be UL listed.
 - E. Drives are to be accessible through a tooled access hinged door assembly.
 - F. The unit manufacturer shall install all power and control wiring.
 - G. The supply air fan drive output shall be controlled by the factory installed main unit control system and drive status and operating speed shall be monitored and displayed at the main unit control panel.
 - H. Drive shall be programmed and factory run tested in the unit.
- 1.19 Special Features:
- A. Integrated Economizers:
 - i. Integrated, parallel modulating blade design type capable of simultaneous economizer and compressor operation.
 - ii. Independent modules for vertical or horizontal return configurations shall be available. Vertical return modules shall be available as a factory installed option.
 - iii. Damper blades shall be galvanized steel. Plastic or composite blades on intake or return shall not be acceptable.
 - iv. Shall include all hardware and controls to provide free cooling with outdoor air when temperature and/or humidity are below setpoints.
 - v. Shall be equipped with gear driven dampers for both the outdoor ventilation air and the return air for positive air stream control.
 - vi. Shall be equipped with low-leakage dampers, not to exceed 2% leakage at 1 in. wg pressure differential.
 - vii. Shall be capable of introducing up to 100% outdoor air.
 - viii. Shall be equipped with a barometric relief damper capable of relieving up to 100% return air.
 - ix. Shall be designed to close damper(s) during loss-of-power situations with spring return built into motor.
 - x. Enthalpy sensor shall be provided as standard. Outdoor air sensor set point shall be adjustable and shall range from 40 to 100°F / 4 to 38°C. Additional sensor options shall be available as accessories.
 - xi. The economizer controller shall also provide control of an accessory power exhaust unit function. Factory set at 70%, with a range of 0% to 100%.
 - xii. The economizer shall maintain minimum airflow into the building during occupied period and provide design ventilation rate for full occupancy. A remote potentiometer may be used to override the damper set point.
 - xiii. Dampers shall be completely closed when the unit is in the unoccupied mode.
 - xiv. Economizer controller shall accept a 2-10Vdc CO2 sensor input for IAQ/DCV control. In this mode, dampers shall modulate the outdoor-air damper to provide ventilation based on the sensor input.
 - xv. Actuator shall be direct coupled to economizer gear. No linkage arms or control rods shall be acceptable.
 - xvi. Economizer controller shall provide indications when in free cooling mode, in the DCV mode, or the exhaust fan contact is closed.
 - xvii. Economizer wire harness will have provision for smoke detector available in supply and return options.
 - xviii. Shall provide fault detection and diagnostics (FDD) system in accordance with local code. Faults shall be communicated out on an alarm signal.

- B. Manual damper:
 - i. Manual damper package shall consist of damper, air inlet screen, and rain hood which can be preset to admit up to 50% outdoor air for year round ventilation.
- C. Condenser Coil Hail Guard Assembly
 - i. Shall protect against damage from hail.
 - ii. Shall be louvered style.
- D. Unit-Mounted, Non-Fused Disconnect Switch:
 - i. Switch shall be factory-installed, internally mounted.
 - ii. National Electric Code (NEC) and UL approved non-fused switch shall provide unit power shutoff.
 - iii. Shall be accessible from outside the unit.
 - iv. Shall provide local shutdown and lockout capability.
- E. Convenience Outlet:
 - i. Non-Powered convenience outlet.
 - ii. Outlet shall be powered from a separate 115-120v power source.
 - iii. A transformer shall not be included.
 - iv. Outlet shall be field-installed and internally mounted with easily accessible 115-v female receptacle.
 - v. Outlet shall include 15 amp GFI receptacle with independent fuse protection.
 - vi. Outlet shall be accessible from outside the unit.
- F. Propeller Power Exhaust:
 - i. Power exhaust shall be used in conjunction with an integrated economizer.
 - ii. Independent modules for vertical or horizontal return configurations shall be available.
 - iii. Horizontal power exhaust shall be mounted in return ductwork.
 - iv. Power exhaust shall be controlled by economizer controller operation. Exhaust fans shall be energized when dampers open past the 0-100% adjustable setpoint on the economizer control.
 - v. Capable of adjustable but constant volume.
- G. Dehumidification:
 - i. Shall utilize a dual-phase hot gas reheat control sequence.
 - ii. Shall be installed with a thermostat or space temperature sensor and an indoor relative humidity sensor, which shall connect to the Rooftop Unit Controller (RTU-C).
 - iii. Shall provide neutral air to the occupied space.
 - iv. Shall have two modes: Cooling and Dehumidification.
 - v. In cooling mode, the vapor refrigerant shall remove the heat to the outdoor coil, where heat is released outdoor. This allows the refrigerant to condense and become a subcooled liquid and the process shall repeat itself.
 - vi. In dehumidification mode, the refrigerant shall absorb heat via the indoor coil from the cooling area. The heat shall be carried via a parallel path to then release heat back into the cooling area allowing for the dehumidification.
 - vii. Modulate reheat coil refrigerant temperature via outdoor fan motor controller to achieve neutral air.
 - viii. Variable Frequency Drive shall allow the unit to operate with two stages of heat.
- H. Roof Curbs (Vertical):
 - i. Formed galvanized steel with wood nailer strip and shall be capable of supporting entire unit weight.
 - ii. Permits installation and securing of ductwork to curb prior to mounting unit on the curb.
- I. Return Air Enthalpy Sensor
 - i. Shall be used in conjunction with an outdoor air enthalpy sensor to provide differential enthalpy control.
- J. Indoor Air Quality (CO2) Sensor:
 - i. Shall be able to provide demand ventilation indoor air quality (IAQ) control.
 - ii. The IAQ sensor shall be available in duct mount, wall mount, or wall mount with LED display. The set point shall have adjustment capability.

K. Smoke detectors:

- i. Shall be a Four-Wire Controller and Detector.
- ii. Shall be environmental compensated with differential sensing for reliable, stable, and drift-free sensitivity.
- iii. Shall use magnet-activated test/reset sensor switches.
- iv. Shall have tool-less connection terminal access.
- v. Shall have a recessed momentary switch for testing and resetting the detector.
- vi. Controller shall include:
 - a. One set of normally open alarm initiation contacts for connection to an initiating device circuit on a fire alarm control panel.
 - b. Two Form-C auxiliary alarm relays for interface with rooftop unit or other equipment.
 - c. One Form-C supervision (trouble) relay to control the operation of the Trouble LED on a remote test/reset station.
 - d. Capable of direct connection to two individual detector modules.
 - e. Can be wired to up to 14 other duct smoke detectors for multiple fan shutdown applications.

L. Barometric Relief

- i. Shall include damper, seals, hard-ware, and hoods to relieve excess building pressure.
- ii. Damper shall gravity-close upon shutdown.

M. Time Guard:

- i. Shall prevent compressor short cycling by providing a 5-minute delay (± 2 minutes) before restarting a compressor after shutdown for any reason.
- ii. One device shall be required per compressor.

N. Standard Factory Installed Overflow Switch

- i. Switch shall monitor the condensate level in drain pan and stops compression operation when overflow conditions occur.

O. Access Panels:

- i. Hinges with $\frac{1}{4}$ turn fasteners shall be permanently attached.
- ii. Hinges shall be powder coated and made from stainless steel.



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GENERAL TERMS OF LIMITED WARRANTY*

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

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

Compressor

Commercial ApplicationsFive (5) Years

Parts

Commercial ApplicationsOne (1) Year

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

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