Commercial Resolute™ Line *Classic*® Series Packaged Air Conditioners

RACH Series (15-25 Ton Models)

Cooling Efficiencies up to: 11.0 EER & 14.2 IEER
Nominal Sizes: 15, 17.5, 20 & 25 Tons [52.8, 61.5, 70.3 & 87.9 kW]
Cooling Capacities: 17.2k Btu/h [50.41 kW] to 28.4k Btu/h [83.23 kW]
Refrigerant Type: R-454B
ASHRAE 90.1 2022 Compliant Models

ISO 9001:2015

c UL us LISTED

AHRI CERTIFIED™ www.ahridirectory.org
Unitary Large AC
AHRI Standard 340/360
Certification applies only when the complete system is listed with AHRI.

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RACH STANDARD FEATURES INCLUDE:

- Factory charged with R-454B refrigerant
- Wired and run tested
- Scroll compressors with internal line break overload and high-pressure protection
- Dual stage compressor on all models
- Field Convertible Airflow – vertical downflow or horizontal sideflow
- TXV refrigerant metering system on each circuit
- High Pressure and Low Pressure/Loss of charge protection standard on all models
- Solid Core liquid line filter drier on each circuit
- Single slab, single pass designed evaporator and condenser coils facilitate easy cleaning for maintaining high efficiencies
- Cooling operation up to 125°F ambient
- Foil faced insulation encapsulated throughout entire unit minimizes airborne fibers from the air stream
- Hinged major access doors with heavy-duty gasketing, 1/4 turn latches and door retainers
- Slide Out Indoor fan assembly for added service convenience
- Powder Paint Finish meets ASTMB117 steel coated on each side for maximum protection. G90 galvanized
- Base pan with drawn supply and return opening for superior water management
- Forkable base rails for easy handling and lifting
- Single point electrical connections
- Internally sloped slide out condensate pan conforms to ASHRAE 62 standards
- High performance belt drive motor with variable pitch pulleys and quick adjust belt system
- Permanently lubricated evaporator, condenser and gas heat inducer motors
- Condenser motors are internally protected, totally enclosed with shaft down design
- 2 inch standard filter with slide out filter rack
- 24 volt control system with resettable circuit breakers
- Color-coded and labeled wiring
- Copper tube/Aluminum Fin indoor coils
- Factory-Installed ClearControl™ (DDC) and sensors which can connect to LonWorks® or BACnet® BAS systems for remote monitoring and control
- Blower with Variable Frequency Drive (VFD) control is standard
- MERV 8 and MERV 13 filters are available as a factory or field-installed option
- Standard Modbus interface
- Refrigerant leak detection system

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.

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

FACTORY-INSTALLED OPTIONS:

- Economizer w/Single Enthalpy (Downflow/Vertical)
- Economizer w/Single Enthalpy (Downflow/Vertical) DDC
- Low-Ambient Control Kit
- Freeze Stat Kit
- Electric Heater Kits
- Return/Supply Smoke Detector (Downflow/Vertical)

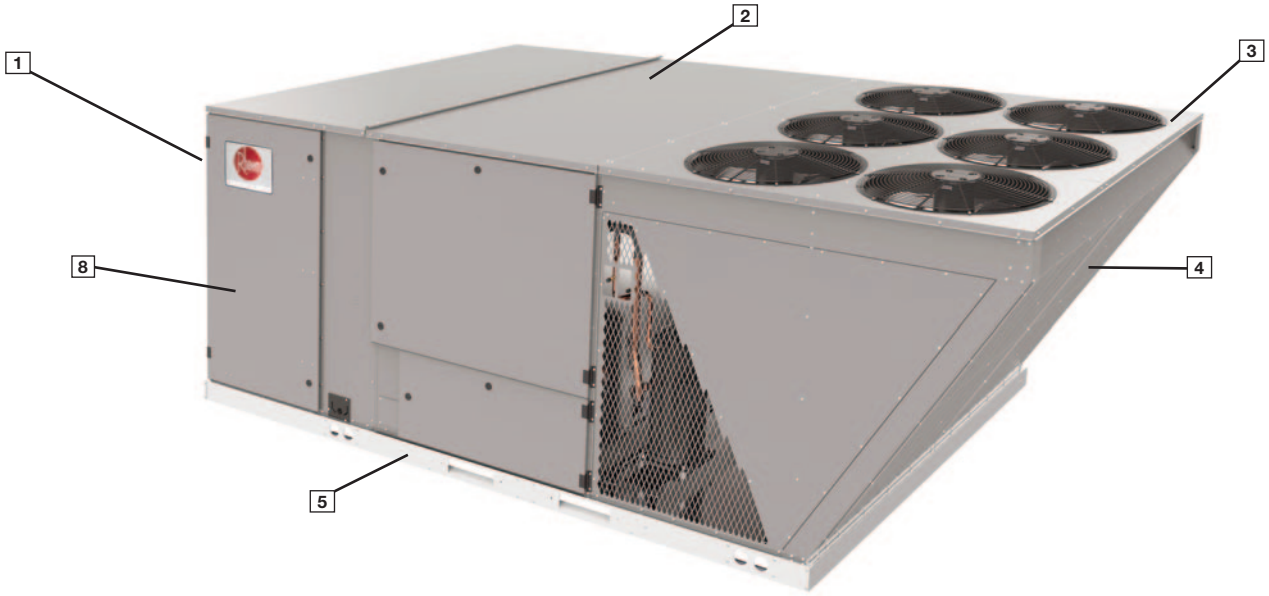
FIELD-INSTALLED ACCESSORY EQUIPMENT:

Accessory	Model Number	Factory Installation Available?
Economizers		
DDC Economizer with Single Enthalpy (Downflow) *Ruskin Rooftop Systems Economizer with Honeywell Controller*	AXRD-01RMDCM3	Yes
DDC Economizer with Single Enthalpy (Downflow) *Ruskin Rooftop Systems Economizer with Honeywell Controller w/ Smoke Detector*	AXRD-01RMDDM3	Yes
DDC Economizer with Single Enthalpy (Horizontal) *Ruskin Rooftop Systems Economizer with Honeywell Controller*	AXRD-01RMHCM3	No
Non-DDC Economizer with Single Enthalpy (Downflow) *Ruskin Rooftop Systems Economizer with Siemens Controller*	RXRD-51MHDAM3	Yes
Non-DDC Economizer with Single Enthalpy (Horizontal) *Ruskin Rooftop Systems Economizer with Siemens Controller*	RXRD-51MHHAM3	No
Economizer Universal DDC Interface Kit	RXRX-DDC02	Yes

Accessory	Model Number	Factory Installation Available?
Comfort Alert® (1 per Compressor)	RXRX-AZ01	Yes
Communication Card, BACnet	RXRX-AY01	No
Communication Card, LonWorks	RXRX-AY02	No
Concentric Adapter/Transition (15 & 17.5 ton)	RXMC-CJ07	No
Concentric Adapter/Transition (20 ton)	RXMC-CK08	No
Concentric Adapter/Transition (25 ton)	RXMC-CL09	No
Concentric Flush Mount Diffuser (15 & 17.5 ton)	RXRN-AD80	No
Concentric Step Down Diffuser (15 & 17.5 ton)	RXRN-AD81	No
Concentric Step Down Diffuser (20 ton)	RXRN-AD86	No
Concentric Step Down Diffuser (25 ton)	RXRN-AD88	No
Dual Enthalpy, Temperature and Humidity Sensor (for Honeywell DDC)	RXRX-AV04	No
Dual Enthalpy, Temperature and Humidity Sensor (for Siemens Non-DDC)	PD555460	No
Electric Heaters	RXJJ-CE20 (C, D)	Yes
	RXJJ-CE40 (C, D)	Yes
	RXJJ-CE60 (C, D)	Yes
	RXJJ-CE75 (C, D)	Yes

[1]Motorized Kit and Manual Fresh Air Damper must be combined for a complete Motorized Outside Air Damper Selection.

Accessory	Model Number	Factory Installation Available?
Fresh Air Damper[1], Manual	AXRF-KFA1	No
Fresh Air Damper[1], Motorized (DDC)	RXRX-AW05	No
Hail Guard Louvers	AXRX-AAD01L	Yes
Low-Ambient Control Kit (1 Per Compressor)	RXRZ-C02	Yes
MERV 8 Filter	RXMF-M08A22520	Yes
MERV 13 Filter	RXMF-M13A22520	Yes
Power Exhaust (208/230V) Kit, Convertible (RRS)	RXRX-BGF05C	No
Power Exhaust (460V) Kit, Convertible (RRS)	RXRX-BGF05D	No
Roofcurb, 14"	RXKG-CBH14	No
Roofcurb Adapter to RXKG-CAF14	RXRX-CJCF14	No
Roofcurb Adapter to RXRK-E56	RXRX-CJCE56	No
Sensor, Carbon Dioxide (Wall Mount)	RXRX-AR02	No
Sensor, Room Humidity	RHC-ZNS4	No
Sensor, Room Temperature and Relative Humidity	RHC-ZNS5	No



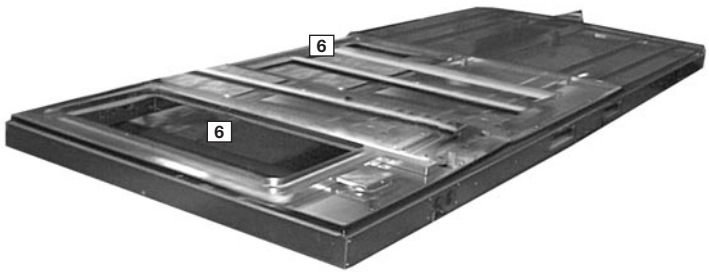
Cabinet and Foundation

Outwardly, the large Rheem *Commercial Series*™ label **(1)** identifies the brand to the customer. The sheet-metal cabinet **(2)** uses nothing less than 20-gauge material for structural components with an underlying coat of G90. To ensure the leak-proof integrity of these units, the design utilizes a top with a 1/8" drip lip **(3)**, gasket-protected panels and screws. **(4)** The outdoor coil is slanted to protect from hail. Every Rheem package unit uses the toughest finish in the industry, using electro deposition baked-on enamel tested to withstand a rigorous 1000-hour salt spray test, per ASTM B117.

Anything built to last must start with the right foundation. In this case, the foundation is 14-gauge, commercial-grade, full-perimeter base rails **(5)**, which integrate fork slots and rigging holes to save set-up time on the job site.

Base Pan

The base pan is stamped, which forms a 1-1/8" flange around the supply and return cover and has eliminated the worry of water entering the conditioned space **(6)**. The insulation has been placed on the underside of the basepan, removing areas that would allow for potential moisture accumulation, which can facilitate growth of harmful bacteria. All insulation is secured with both adhesive and mechanical fasteners, and all edges are hidden.



Drain Pan

The drainpan **(7)** is made of plastic that resists the growth of harmful bacteria and is sloped for the latest IAQ benefits. Furthermore, the drain pan slides out for easy cleaning.

Test Standards

During development, each unit was tested to U.L. 60335-2-40, AHRI 340-360 and other Rheem-required reliability tests. Rheem adheres to stringent ISO 9001:2015 quality procedures, and each unit bears the U.L. and AHRI certification labels located on the unit nameplate. Contractors can rest assured that when a Rheem package unit arrives at the job, it is ready to go with a factory charge and quality checks.

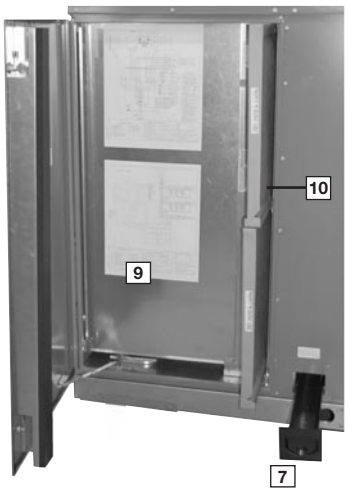
Easy Access

Access to all major compartments is from the front of the unit, including the filter and electrical compartment **(8)**, blower compartment, heating section, and outdoor section. Each panel is permanently embossed with the compartment name (control/filter access, blower access). Hinged access is standard for the electrical, blower, compressor, and filter compartments.

Electrical and filter compartment access is through a large, hinged-access panel with 1/4 turn latches. On the outside of the panel is the unit nameplate, which contains the model and serial number, electrical data and other important unit information.

Charging Charts, Wiring Diagrams & Labels

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



Filter Rack

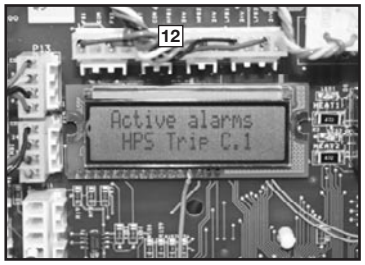
The tracked filter rack allows for easy change of eight 2" x 20" x 25" standard sized filters.

Control Box

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

ClearControl

As part of the ClearControl system which allows real time monitoring and communication between rooftop units, the RACH Package Air Conditioner has a Rooftop Unit Controller (RTU-C) factory mounted and wired in the control panel. The RTU-C is a solid-state microprocessor-based control board that provides flexible control and extensive diagnostics for all unit functions. The RTU-C through proportional/integral control algorithms perform 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 **(12)**. New 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 freezestats to allow measurement of refrigerant suction line temperatures.



The RACH Package Air Conditioner with the ClearControl is specifically designed to be applied in four distinct applications:

1. **BACnet Communication —** The unit 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 into the unit RTU-C controller and allows communication between ClearControl™ and the BACnet MSTP or IP 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 unit 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 ClearControl 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 ft. with no repeater. The LonWorks limit of 64 nodes per segment applies to this device.

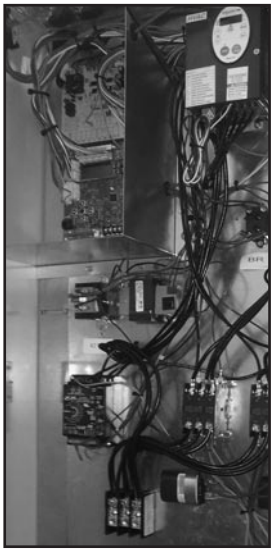
3. **24V Thermostat Compatibility —** The unit is compatible with a programmable 24 volt thermostat. Connections are made via conventional thermostat screw terminals. Extensive unit status and diagnostics are displayed on the LCD screen of the RTU-C.

4. **Zone Sensor Compatibility —** The unit is compatible with a zone sensor and mechanical or solid state time clock connected to the RTU-C. Extensive unit status and diagnostics are displayed on the LCD screen of the ClearControl.

Comfort Alert

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

Variable Frequency Drive

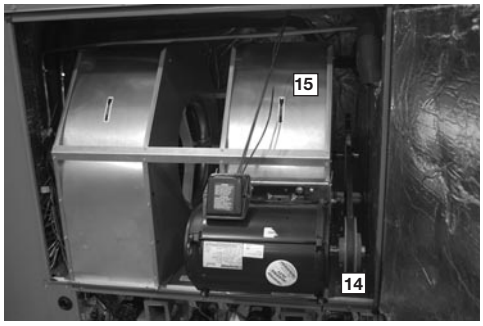


The supply fan Variable Frequency Drive (VFD) comes standard and optimizes energy usage year round by providing a lower speed for first stage cooling operation improving IEER's over the conventional constant fan system. Furthermore, operating in the constant fan mode at the reduced speed can use as little as 1/5th of the energy of a conventional constant fan system. Also, by operating at a lower speed on first stage cooling up to 51% more moisture is removed improving comfort during low load operation. The VFD supply fan factory option meet's California Title 24 and ASHRAE 90.1-2022 requirements for multi blower speed control. VFD also ramps up to the desire speed reducing stress on the supply fan components and reducing the noise from 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.

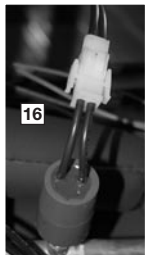
Convenience Outlet & Disconnect

For added convenience in the field, a factory-installed convenience outlet **(13)** is available. Low and High voltage can enter either from the side or through the base. Low-voltage connections are made through the low-voltage terminal strip. 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 high voltage terminal block. The suggested mounting for the field-installed disconnect is on the exterior side of the electrical control box.

Blower Compartment



The blower compartment is to the right of the control box and can be accessed by 1/4 turn latches. To allow easy maintenance of the blower assembly, the entire assembly easily slides out by removing four #10 screws from the blower assembly. The adjustable motor pulley **(14)** can easily be adjusted by loosening the bolts on either side of the motor mount. Removing the bolts allows for easy removal of the blower pulley by pushing the blower assembly up to loosen the belt. Once the pulley is removed, the motor sheave can be adjusted to the desired number of turns, ranging from 1 to 6 turns open. Where the demands for the job require high static, Rheem has high-static drives available that deliver nominal airflow up to 2" of static. By referring to the airflow performance tables listed in the installation instructions, proper static pressure and CFM requirements can be dialed in. The scroll housing **(15)** and blower scroll provide quiet and efficient airflow. The blower sheave is secured by an "H" bushing which firmly secures the pulley to the blower shaft for years of trouble-free operation. The "H" bushing allows for easy removal of the blower pulley from the shaft, as opposed to the use of a set screw, which can score the shaft, creating burrs that make blower-pulley removal difficult.



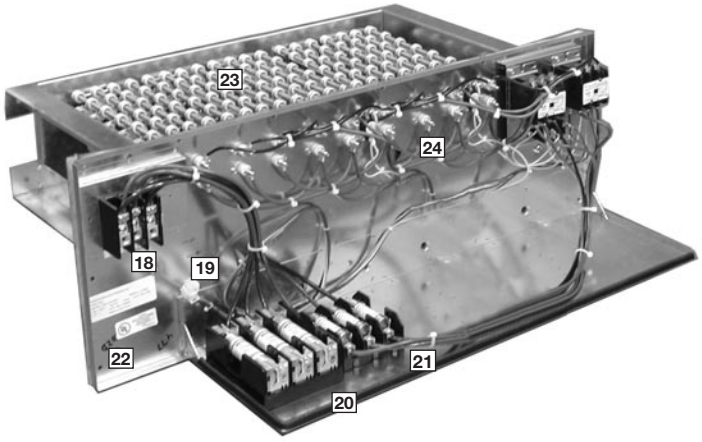
Also inside the blower compartment are the optional low-ambient controls **(16)**. The optional low-ambient controls allow for operation of the compressors down to 0 degrees ambient temperature by cycling the outdoor fans on high pressure. The freeze sensor protects the compressor if the evaporator coil gets too cold (below freezing) due to low airflow, and allows monitoring of the suction line temperature on the controller display. The sensor clips on the suction line near the evaporator outlet.

Inside the blower compartment the interlaced evaporator can also be viewed. The evaporator uses enhanced fin technology for maximum heat transfer. The TXV metering device assures even distribution of refrigerant throughout the evaporator.

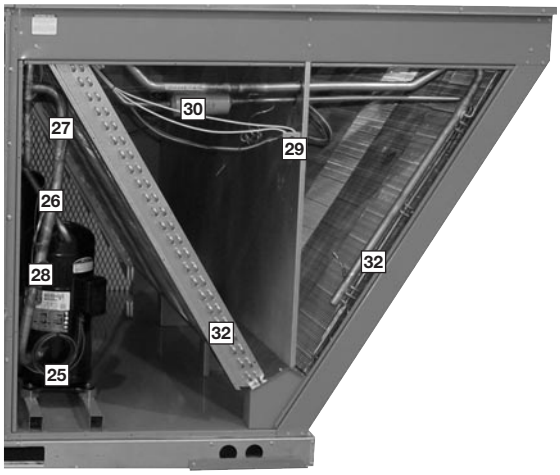
Wiring throughout the unit is neatly bundled and routed. Where wire harnesses go through the condenser bulkhead or blower deck, a molded wire harness assembly **(17)** provides an air-tight and water-tight seal, and provides strain relief. Care is also taken to tuck raw edges of insulation behind sheet metal to improve indoor air quality.

Electric Heater Kits

The electric heater kits are located in the heater compartment. The two-stage resistive heater kits are available for factory or field installation. With choices that range from 18 to 72 kW, the contractor is assured to get the correct amount of heating output to meet the design heating load. Engineered with ease of installation in mind, the heater kit is completely wired up for slide-in plug-and-play installation in the field.



Power hook-up in the field is easy with single-point wiring to a terminal block **(**18**)** and a polarized plug for the low-voltage connection **(**19**)**. The electric furnace comes with fuses for the unit **(**20**)** and for the electric furnace **(**21**)**, and is UL certified **(**22**)**. The electric heating elements are of a wound-wire construction **(**23**)** and isolated with ceramic bushings. The limit switch **(**24**)** protects the design from over-temperature conditions.



Compressor

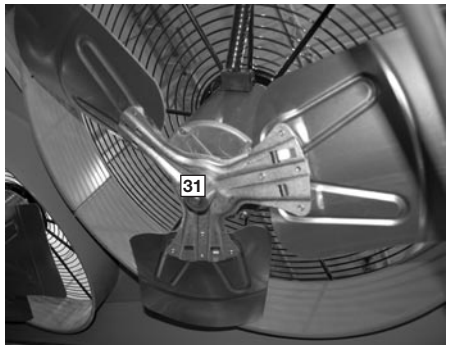
The compressor compartment houses the heartbeat of the unit. The scroll compressor **(**25**)** is known for its long life, and for reliable, quiet, and efficient operation. The suction and discharge lines are designed with shock loops **(**26**)** to absorb the strain and stress that the starting torque, steady state operation, and shut down cycle impose on the refrigerant tubing. Each compressor and circuit is independent for built-in redundancy, and each circuit is clearly marked throughout the system. Each unit has two stages of efficient cooling operation, first stage is approximately 50% of second stage.

External Gauge Port, High and Low Pressure Switches & Filter Dryer

In the outdoor section are the external gauge ports **(**27**)**. With the gauge ports mounted externally, an accurate diagnosis of system operation can be performed quickly and easily. To identify the use of A2L class refrigerant R-454B, refrigerant ports are covered with red caps. Also located in this area are the refrigerant safety devices: the low-pressure switches **(**28**)** and the high-pressure switches. **(**29**)** The high-pressure switches will shut off the compressors if pressures exceeding 610 psig are detected as may occur if the outdoor fan motor fails. The low pressure switches shut off the compressors if low pressure is detected due to loss of refrigerant charge. The factory-installed high and low pressure switches are brazed into the appropriate high or low side and wired appropriately. Each unit comes standard with filter dryer **(**30**).**

Condenser Fans

The condenser fan motor **(**31**)** can easily be accessed and maintained by removing the protective fan grille. The polarized plug connection allows the motor to be changed quickly and eliminates the need to snake wires through the unit.



MicroChannel Condenser Coil

The condenser coil uses MicroChannel technology for maximum heat transfer, light weight, fewer manually brazed connections and reduced refrigerant charge **(**32**)**. The outdoor coil is slanted to protect the unit from Mother Nature.

Economizers and Dampers

Each unit is designed for both downflow or horizontal applications **(**33**)** for job configuration flexibility. The return air compartment can also contain an economizer **(**34**)**. Three models exist; two for downflow applications, and one for horizontal applications. (A downflow economizer with factory-installed smoke detector in the return section is available). Each unit is pre-wired for the economizer to allow quick plug-in installation. The downflow economizer is also available as a factory-installed option. The economizer, which provides free cooling when outdoor conditions are suitable and also provides fresh air to meet local requirements, comes standard with single enthalpy controls. The controls can be upgraded to dual enthalpy easily in the field. The direct drive actuator combined with gear drive dampers has eliminated the need for linkage adjustment in the field. The economizer control has a minimum position setpoint, an outdoor-air setpoint, a mix-air setpoint, and a CO_2 setpoint. 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 plug-in 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 setpoint, mixed air temperature limit setpoint and Demand Controlled Ventilation (DCV) setpoint can be read and adjusted at the unit controller display or remotely through a network connection.

The Space CO_2 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 Rheem roofcurb **(35)** is made for toolless assembly at the jobsite by inserting a pin into the hinged corners **(36)**, which makes the assembly process quick and easy.

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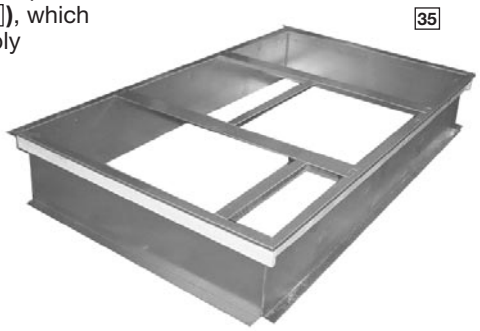

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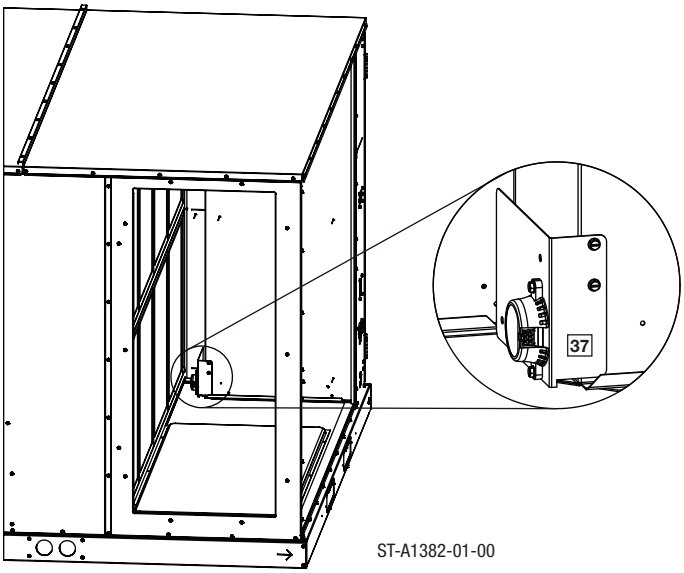
Refrigerant Leak Detection

In the event of a detected refrigerant leak, the refrigerant leak detection sensor **(37)** will trigger the mitigation procedure that shuts off the compressor(s) and turns on the indoor blower motor.



HUMIDIDRY SYSTEM FEATURES

HumidiDry® is Rheem's exclusive dehumidification packaged unit solution. It delivers maximum humidity control without compromising desired temperature set point for better occupant comfort. HumidiDry maintains humidity levels at a desired better occupant set point when there's little or no demand for air conditioning. Packaged units with HumidiDry hot gas reheat are 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 satisfied but humidity exceeds the humidistat set point, the unit initiates a dehumidification cycle using a combination of hot gas and subcooled liquid reheat and the VFD operates at low speed. During this cycle, the 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 first-stage system runs in the dehumidification cycle, the second-stage system runs in a cooling 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.

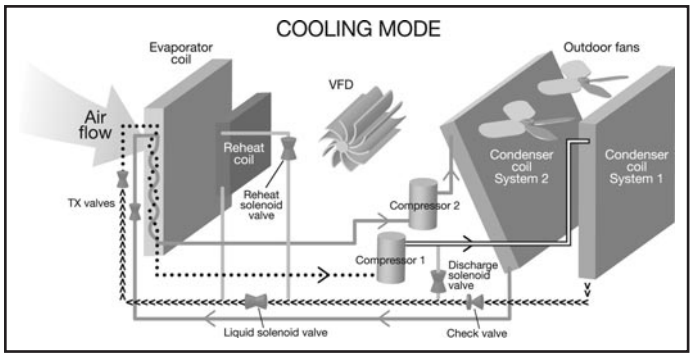


Figure 1

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 condenser coil and a bypass circuit where 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.

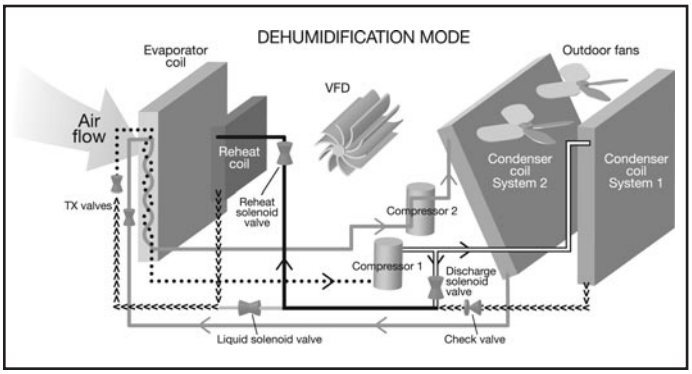


Figure 2

R	AC	H	Y	B	180	A	C	F	00		0	C	A	****			
1	23	4	5	6	789	10	11	12	13	14	15	16	17	18	19	20	21

1—Brand
R = Rheem

2, 3—Unit Type
AC = Packaged AC

4—Cabinet Type
H = Large Commercial

5—Refrigerant
Y = R-454B

6—Efficiency Level
B = Standard Efficiency

7, 8, 9—Capacity
180 = 15 Ton
210 = 17.5 Ton
240 = 20 Ton
300 = 25 Ton

10—Major series
A = 1st Design

11—Voltage
C = 3 PH, 208-230V/60 Hz
D = 3 PH, 460V/60 Hz

12—Drive
F = Belt Drive – VFD Low
G = Belt Drive – VFD Medium
H = Belt Drive – VFD High
(H-Drive only available Field-Installed on 20 Ton)

13, 14—Supplemental Heat Capacity
00 = No Heat
20 = 20 kW
40 = 40 kW
60 = 60 kW
75 = 75 kW

15—Supplemental Heat Configuration
0 = No Stages
1 = 1-Stage
2 = 2-Stage

16—Control
C = ClearControl
D = ClearControl & Comfort Alert

17—Minor series
A = 1st Design

18, 19, 20, 21—Option Code
See next page

FACTORY-INSTALLED OPTION CODES FOR RACH (15-25 TON) [52.8-87.9 kW]

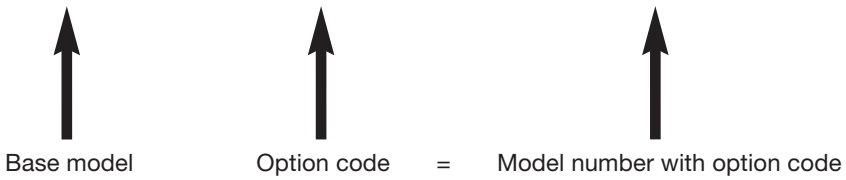
18				19		20			21	
LV = Louver protection				LF = Low Ambient		EC = DDC Single Enthalpy Economizer with Barometric Relief (Downflow Only)			M8 = MERV 8 Filter	
RH = HumidiDry HGRH (Hot Gas Reheat)[1]						RS = Return Smoke Detector			M13 = MERV 13 Filter	
HA = Hinged Access (Standard)										
Option code character highlighted below										
C	HA			**A**	None	**0**	None		**A**	Standard
D	LV	HA		**B**	LF	**1**	EC		**D**	M8
Q	RH	HA				**3**	EC	RS	**G**	M13
S	LV	RH	HA							

[1]RH Not available for 17.5T

Instructions for Factory-Installed Option(s) Selection

NOTE: Four 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, “CA0A” 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 “D” has Louver protection and Hot Gas Reheat.
- **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 “B” has Low Ambient Controls.
- **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.
- **Step 4:** In the table above, based on the desired features, choose option code from highlighted options on the left side under the number 21. For example, the option code character “D” has MERV 8 filters.
- The resulting option code from examples above is: “ED3”
- **Step 5:** Add your option code selection to the end of model number.
  - Example: RACHYB180ACF000CA DB3D = RACHYB180ACF000CADB3D



To select an RACH 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—	240 V – 3 Phase – 60 Hz
Total Cooling Capacity—	205,000 Btu/h [60.0 kW]
Sensible Cooling Capacity—	155,000 Btu/h [45.4 kW]
Heating Capacity—	235,000 Btu/h [68.8 kW]
*Condenser Entering Air—	95°F [35°C] DB
*Evaporator Mixed Air Entering—	65°F [18.3] WB; 78°F [25.6] DB
*Indoor Air Flow (vertical)—	7200 CFM [3398 L/s]
*External Static Pressure—	0.70 in. WG [.17 kPa]

2. SELECT UNIT TO MEET COOLING REQUIREMENTS.

Since total cooling is within the range of a nominal 20 ton [70.3 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] WB to determine total and sensible capacity and power input for 65°F [18.3 °C] WB evaporator inlet air at 7725 CFM [3645 L/s] indoor air flow (table basis):

Total Cooling Capacity = 238,300 Btu/h [69.76 kW]
Sensible Cooling Capacity = 192,500 Btu/h [56.38 kW]
Power Input (Compressor and Cond. Fans) = 18,200 watts

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

192,550 + (1.10 x 7,200 x (1 – 0.11) x (78 – 80))

Sensible Cooling Capacity = 178,452 Btu/h [52.25 kW]

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

Select factors from airflow correction table at 7200 CFM [3398 L/s] and apply to data obtained in step 2 to obtain gross capacity:

Total Capacity = 238,300 x .99 = 235,868 Btu/h [69.06 kW]
Sensible Capacity = 178,452 x 0.96 = 171,314 Btu/h [50.16 kW]
Power Input = 18,200 x 0.99 = 18,018 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 7200 CFM [3398 L/s]. Total ESP (external static pressure) per the spec of 0.70 in. WG [.17 kPa] includes the system duct and grilles. Add from the table 'Component Air Resistance', 0.01 in. WG [.00 kPa] for wet coil, 0.08 in. WG [.02 kPa] for downflow air flow, for a total selection static pressure of 0.79 (0.8) in. WG [.20 kPa], and determine:

RPM = 739
WATTS = 2,862
DRIVE = F (Belt Drive - VFD Low)

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

2,862 x 3.412 = 9,765 Btu/h [2.86 kW]

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

Net Total Capacity = 235,868 – 9,765 = 226,103 Btu/h [66.21 kW]

Net Sensible Capacity = 171,314 – 9,765 = 161,549 Btu/h [47.30 kW]

7. CALCULATE UNIT INPUT AND JOB EER.

Total Power Input = 18,018 (step 3) + 2,862 (step 4) = 20,880 Watts

$$EER = \frac{\text{Net Total Btu/h [kW] (step 6)}}{\text{Power Input, Watts (above)}} = \frac{226{,}103}{20{,}880} = 10.83$$

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 75 kW Heater Kit
Heater Kit Model: RXJJ-CE75C
Heater Kit Capacity: 245,323 Btu/h [71.8 kW]

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

245,323 + 9,765 = 255,088 Btu/h [74.7 kW]

9. CHOOSE MODEL RACHYB240ACF752CAQA0A

*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

GENERAL DATA—RACHYB MODELS—15–25 TON [52.4–87.9 kW]

Model RACHYB Series	180	210	240	300
Cooling Performance[A]				
Gross Cooling Capacity Btu/h [kW]	177,295 [51.9]	209,080 [61.1]	236,290 [69.2]	299,810 [87.8]
EER	11.0	11.0	11.0	10.0
IEER[B]	14.2	14.2	14.2	13.2
Nominal CFM/AHRI Rated CFM [L/s]	6,000/5,275 [2,832/2,490]	7,000/6,800 [3,304/3,209]	8,000/6,675 [3,776/3,150]	10,000/8,790 [4,719/4,148]
AHRI Net Cooling Capacity Btu/h [kW]	172,000 [50.41]	200,000 [58.61]	228,000 [66.82]	284,000 [83.23]
Net Sensible Capacity Btu/h [kW]	129,000 [37.81]	150,000 [43.96]	171,000 [50.12]	213,000 [62.42]
Net Latent Capacity Btu/h [kW]	43,000 [12.6]	50,000 [14.65]	57,000 [16.71]	71,000 [20.81]
Net System Power [kW]	15.64	18.18	20.73	28.40
Compressor				
No./Type	2/Scroll	2/Scroll	2/Scroll	2/Scroll
No. Stages	2	2	2	2
Outdoor Sound Rating (dB)[C]	87	88	92	92
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	52.4 [4.87]	52.4 [4.87]	52.4 [4.87]	52.4 [4.87]
Rows / FPI [FPcm]	2 / 23 [9]	2 / 23 [9]	2 / 23 [9]	2 / 23 [9]
Indoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
MicroChannel Depth in. [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	26.7 [2.48]	26.7 [2.48]	26.7 [2.48]	26.7 [2.48]
Rows / FPI [FPcm]	2 / 18 [7]	2 / 18 [7]	4 / 15 [7]	4 / 15 [7]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]
Outdoor Fan—Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	3/24 [609.6]	4/24 [609.6]	6/24 [609.6]	6/24 [609.6]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	10,000 [4719]	14,800 [6984]	19,800 [9344]	19,800 [9344]
No. Motors/HP	3 at 1/3 HP	4 at 1/3 HP	6 at 1/3 HP	6 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan—Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	2/18x9 [457x229]	2/18x9 [457x229]	2/18x9 [457x229]	2/18x9 [457x229]
Drive Type	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor RPM	1725	1725	1760	1760
Motor Frame Size	56 / 184	56 / 184	184 / 213	213 / 215
Filter—Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]
Refrigerant Charge Oz. [g] Circuit 1 / Circuit 2	144 [4082]/148 [4196]	161.6 [4581]/168 [4763]	212.8 [6033]/206.4 [5851]	228.8 [6486]/216 [6124]
Weights				
Net Weight lbs. [kg]	2058 [933]	2371 [1075]	2409 [1093]	2432 [1103]
Ship Weight lbs. [kg]	2185 [991]	2498 [1133]	2536 [1150]	2559 [1161]

NOTE: Please look at the rating plates pasted on the side of the unit to understand the model number of your unit. See Page 15 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 ±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 and Integrated Energy Efficiency Ratio (IEER) are rated at AHRI conditions in accordance with AHRI Standard 340/360.

C. Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

WEIGHTED SOUND POWER LEVEL (dBA)

Model	Standard Rating (dBA)	Frequency (Hz)						
		125	250	500	1000	2000	4000	8000
RACHYB180	86.7	80.3	79.4	78.9	77.4	72.6	71.8	63.0
RACHYB210	88.0	83.2	81.5	81.4	77.7	72.9	70.7	62.1
RACHYB240	91.5	82.8	85.1	85.9	80.9	76.4	71.7	63.7
RACHYB300	91.7	84.2	85.6	86.1	81.5	76.1	70.9	64.3

GROSS SYSTEMS PERFORMANCE DATA—RACHYB180

RACHYB180—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]			7450 [3516]	5275 [2490]	4975 [2348]	7450 [3516]	5275 [2490]	4975 [2348]	7450 [3516]	5275 [2490]	4975 [2348]	
DR ①			.05	.09	.12	.05	.09	.12	.05	.09	.12	
OUTDOOR DRY BULB TEMPERATURE °F [°C]	75 [23.9]	Total kBtu/h [kW]	234.4 [68.7]	218.1 [63.9]	215.8 [63.2]	220.6 [64.7]	205.2 [60.1]	203.1 [59.5]	208.0 [61.0]	193.5 [56.7]	191.5 [56.1]	
		Sens kBtu/h [kW]	145.2 [42.6]	121.8 [35.7]	118.5 [34.7]	172.9 [50.7]	145.0 [42.5]	141.1 [41.4]	196.8 [57.7]	165.1 [48.4]	160.7 [47.1]	
		Power	13.5	13.0	13.0	13.4	13.0	12.9	13.3	12.8	12.7	
	80 [26.7]	Total kBtu/h [kW]	229.7 [67.3]	213.7 [62.6]	211.5 [62.0]	215.8 [63.2]	200.8 [58.9]	198.7 [58.2]	203.3 [59.6]	189.1 [55.4]	187.2 [54.9]	
		Sens kBtu/h [kW]	142.8 [41.9]	119.8 [35.1]	116.6 [34.2]	170.5 [50.0]	143.0 [41.9]	139.2 [40.8]	194.4 [57.0]	163.0 [47.8]	158.7 [46.5]	
		Power	14.3	13.8	13.7	14.2	13.7	13.6	14.0	13.5	13.5	
	85 [29.4]	Total kBtu/h [kW]	224.8 [65.9]	209.1 [61.3]	206.9 [60.6]	210.9 [61.8]	196.2 [57.5]	194.2 [56.9]	198.4 [58.1]	184.6 [54.1]	182.6 [53.5]	
		Sens kBtu/h [kW]	140.3 [41.1]	117.6 [34.5]	114.5 [33.6]	167.9 [49.2]	140.8 [41.3]	137.1 [40.2]	191.9 [56.2]	160.9 [47.2]	156.6 [45.9]	
		Power	15.0	14.5	14.4	15.0	14.4	14.4	14.8	14.3	14.2	
	90 [32.2]	Total kBtu/h [kW]	219.6 [64.4]	204.3 [59.9]	202.2 [59.3]	205.8 [60.3]	191.4 [56.1]	189.4 [55.5]	193.2 [56.6]	179.8 [52.7]	177.9 [52.1]	
		Sens kBtu/h [kW]	137.6 [40.3]	115.4 [33.8]	112.3 [32.9]	165.3 [48.4]	138.6 [40.6]	134.9 [39.5]	189.2 [55.5]	158.7 [46.5]	154.5 [45.3]	
		Power	15.8	15.2	15.1	15.7	15.2	15.1	15.5	15.0	14.9	
	95 [35]	Total kBtu/h [kW]	214.3 [62.8]	199.3 [58.4]	197.3 [57.8]	200.4 [58.7]	186.4 [54.6]	184.5 [54.1]	187.9 [55.1]	174.8 [51.2]	173.0 [50.7]	
		Sens kBtu/h [kW]	134.8 [39.5]	113.1 [33.1]	110.1 [32.3]	162.5 [47.6]	136.3 [39.9]	132.7 [38.9]	186.5 [54.7]	156.4 [45.8]	152.2 [44.6]	
		Power	16.5	15.9	15.9	16.5	15.9	15.8	16.3	15.7	15.6	
	100 [37.8]	Total kBtu/h [kW]	208.7 [61.2]	194.2 [56.9]	192.1 [56.3]	194.8 [57.1]	181.3 [53.1]	179.4 [52.6]	182.3 [53.4]	169.6 [49.7]	167.9 [49.2]	
		Sens kBtu/h [kW]	132.0 [38.7]	110.7 [32.4]	107.7 [31.6]	159.6 [46.8]	133.9 [39.2]	130.3 [38.2]	182.3 [53.4]	153.9 [45.1]	149.9 [43.9]	
		Power	17.3	16.7	16.6	17.2	16.6	16.5	17.1	16.5	16.4	
	105 [40.6]	Total kBtu/h [kW]	202.9 [59.5]	188.8 [55.3]	186.8 [54.7]	189.1 [55.4]	175.9 [51.6]	174.1 [51.0]	176.5 [51.7]	164.2 [48.1]	162.5 [47.6]	
		Sens kBtu/h [kW]	128.9 [37.8]	108.1 [31.7]	105.3 [30.9]	156.6 [45.9]	131.3 [38.5]	127.8 [37.5]	176.5 [51.7]	151.4 [44.4]	147.4 [43.2]	
		Power	18.0	17.4	17.3	18.0	17.3	17.3	17.8	17.2	17.1	
	110 [43.3]	Total kBtu/h [kW]	196.9 [57.7]	183.2 [53.7]	181.3 [53.1]	183.1 [53.7]	170.3 [49.9]	168.5 [49.4]	170.5 [50.0]	158.6 [46.5]	157.0 [46.0]	
		Sens kBtu/h [kW]	125.8 [36.9]	105.5 [30.9]	102.7 [30.1]	153.5 [45.0]	128.7 [37.7]	125.3 [36.7]	170.5 [50.0]	148.8 [43.6]	144.8 [42.4]	
		Power	18.8	18.1	18.0	18.7	18.1	18.0	18.6	17.9	17.8	
	115 [46.1]	Total kBtu/h [kW]	190.7 [55.9]	177.4 [52.0]	175.6 [51.5]	176.9 [51.8]	164.5 [48.2]	162.8 [47.7]	164.3 [48.2]	152.9 [44.8]	151.3 [44.3]	
		Sens kBtu/h [kW]	122.5 [35.9]	102.8 [30.1]	100.0 [29.3]	150.2 [44.0]	126.0 [36.9]	122.6 [35.9]	164.3 [48.2]	146.1 [42.8]	142.2 [41.7]	
		Power	19.5	18.9	18.8	19.5	18.8	18.7	19.3	18.6	18.6	
	120 [48.9]	Total kBtu/h [kW]	184.3 [54.0]	171.4 [50.2]	169.7 [49.7]	170.4 [49.9]	158.5 [46.5]	156.9 [46.0]	157.9 [46.3]	146.9 [43.1]	145.4 [42.6]	
		Sens kBtu/h [kW]	119.2 [34.9]	99.9 [29.3]	97.3 [28.5]	146.8 [43.0]	123.1 [36.1]	119.9 [35.1]	157.9 [46.3]	143.2 [42.0]	139.4 [40.9]	
		Power	20.3	19.6	19.5	20.2	19.5	19.4	20.1	19.4	19.3	
	125 [51.7]	Total kBtu/h [kW]	177.7 [52.1]	165.3 [48.4]	163.6 [47.9]	163.8 [48.0]	152.4 [44.7]	150.8 [44.2]	151.3 [44.3]	140.7 [41.2]	139.3 [40.8]	
		Sens kBtu/h [kW]	115.7 [33.9]	97.0 [28.4]	94.4 [27.7]	143.3 [42.0]	120.2 [35.2]	117.0 [34.3]	151.3 [44.3]	140.3 [41.1]	136.6 [40.0]	
		Power	21.1	20.3	20.2	21.0	20.3	20.2	20.8	20.1	20.0	

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

GROSS SYSTEMS PERFORMANCE DATA—RACHYB210

RACHYB210—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]			8250 [3894]	6800 [3209]	5500 [2596]	8250 [3894]	6800 [3209]	5500 [2596]	8250 [3894]	6800 [3209]	5500 [2596]	
DR ①			.05	.09	.12	.05	.09	.12	.05	.09	.12	
OUTDOOR DRY BULB TEMPERATURE °F [°C]	75 [23.9]	Total kBtu/h [kW]	250.5 [73.4]	241.2 [70.7]	232.8 [68.2]	236.0 [69.2]	227.2 [66.6]	219.3 [64.3]	221.5 [64.9]	213.2 [62.5]	205.8 [60.3]	
		Sens kBtu/h [kW]	153.8 [45.1]	139.9 [41.0]	127.4 [37.3]	187.0 [54.8]	170.0 [49.8]	154.9 [45.4]	213.9 [62.7]	194.6 [57.0]	177.2 [51.9]	
		Power	8.7	8.5	8.4	8.7	8.5	8.4	8.7	8.6	8.4	
	80 [26.7]	Total kBtu/h [kW]	245.1 [71.8]	236.0 [69.2]	227.8 [66.8]	230.6 [67.6]	222.0 [65.1]	214.3 [62.8]	216.1 [63.3]	208.0 [61.0]	200.8 [58.9]	
		Sens kBtu/h [kW]	151.1 [44.3]	137.4 [40.3]	125.1 [36.7]	184.2 [54.0]	167.6 [49.1]	152.6 [44.7]	211.2 [61.9]	192.1 [56.3]	174.9 [51.3]	
		Power	9.1	8.9	8.7	9.1	8.9	8.8	9.1	8.9	8.8	
	85 [29.4]	Total kBtu/h [kW]	239.7 [70.3]	230.8 [67.6]	222.8 [65.3]	225.2 [66.0]	216.8 [63.5]	209.3 [61.3]	210.7 [61.8]	202.8 [59.4]	195.8 [57.4]	
		Sens kBtu/h [kW]	148.5 [43.5]	135.0 [39.6]	123.0 [36.0]	181.6 [53.2]	165.2 [48.4]	150.5 [44.1]	208.6 [61.1]	189.7 [55.6]	172.8 [50.6]	
		Power	9.5	9.3	9.1	9.5	9.3	9.1	9.5	9.3	9.1	
	90 [32.2]	Total kBtu/h [kW]	234.3 [68.7]	225.6 [66.1]	217.7 [63.8]	219.8 [64.4]	211.6 [62.0]	204.3 [59.9]	205.3 [60.2]	197.6 [57.9]	190.8 [55.9]	
		Sens kBtu/h [kW]	146.0 [42.8]	132.8 [38.9]	121.0 [35.5]	179.2 [52.5]	163.0 [47.8]	148.4 [43.5]	205.3 [60.2]	187.5 [55.0]	170.8 [50.1]	
		Power	9.9	9.7	9.5	9.9	9.7	9.5	9.9	9.7	9.5	
	95 [35]	Total kBtu/h [kW]	228.9 [67.1]	220.4 [64.6]	212.7 [62.3]	214.4 [62.8]	206.4 [60.5]	199.2 [58.4]	199.9 [58.6]	192.4 [56.4]	185.8 [54.5]	
		Sens kBtu/h [kW]	143.8 [42.1]	130.7 [38.3]	119.1 [34.9]	176.9 [51.8]	160.9 [47.2]	146.5 [42.9]	199.9 [58.6]	185.4 [54.3]	168.9 [49.5]	
		Power	10.3	10.1	9.9	10.3	10.1	9.9	10.3	10.1	9.9	
	100 [37.8]	Total kBtu/h [kW]	223.5 [65.5]	215.2 [63.1]	207.7 [60.9]	209.0 [61.3]	201.2 [59.0]	194.2 [56.9]	194.5 [57.0]	187.2 [54.9]	180.7 [53]	
		Sens kBtu/h [kW]	141.6 [41.5]	128.8 [37.7]	117.3 [34.4]	174.8 [51.2]	158.9 [46.6]	144.8 [42.4]	194.5 [57.0]	183.5 [53.8]	167.1 [49]	
		Power	10.7	10.5	10.4	10.7	10.6	10.4	10.8	10.6	10.4	
	105 [40.6]	Total kBtu/h [kW]	218.1 [63.9]	210.0 [61.5]	202.7 [59.4]	203.6 [59.7]	196.0 [57.4]	189.2 [55.5]	189.1 [55.4]	182.0 [53.3]	175.7 [51.5]	
		Sens kBtu/h [kW]	139.6 [40.9]	127.0 [37.2]	115.6 [33.9]	172.8 [50.6]	157.1 [46.0]	143.1 [41.9]	189.1 [55.4]	181.7 [53.3]	165.4 [48.5]	
		Power	11.2	11.0	10.8	11.2	11.0	10.8	11.2	11.0	10.8	
	110 [43.3]	Total kBtu/h [kW]	212.7 [62.3]	204.8 [60.0]	197.7 [57.9]	198.2 [58.1]	190.8 [55.9]	184.2 [54.0]	183.7 [53.8]	176.8 [51.8]	170.7 [50.0]	
		Sens kBtu/h [kW]	137.7 [40.4]	125.3 [36.7]	114.1 [33.4]	170.9 [50.1]	155.4 [45.5]	141.6 [41.5]	183.7 [53.8]	176.8 [51.8]	163.9 [48.0]	
		Power	11.7	11.5	11.3	11.7	11.5	11.3	11.7	11.5	11.3	
	115 [46.1]	Total kBtu/h [kW]	207.3 [60.8]	199.6 [58.5]	192.7 [56.5]	192.8 [56.5]	185.6 [54.4]	179.2 [52.5]	178.3 [52.3]	171.6 [50.3]	165.7 [48.6]	
		Sens kBtu/h [kW]	136.0 [39.9]	123.7 [36.3]	112.7 [33.0]	169.2 [49.6]	153.9 [45.1]	140.1 [41.1]	178.3 [52.3]	171.6 [50.3]	162.5 [47.6]	
		Power	12.2	12.0	11.8	12.2	12.0	11.8	12.2	12.0	11.8	
	120 [48.9]	Total kBtu/h [kW]	201.9 [59.2]	194.4 [57.0]	187.6 [55.0]	187.4 [54.9]	180.4 [52.9]	174.1 [51.0]	172.9 [50.7]	166.4 [48.8]	160.7 [47.1]	
		Sens kBtu/h [kW]	134.5 [39.4]	122.3 [35.8]	111.4 [32.6]	167.6 [49.1]	152.5 [44.7]	138.8 [40.7]	172.9 [50.7]	166.4 [48.8]	160.7 [47.1]	
		Power	12.7	12.5	12.3	12.7	12.5	12.3	12.7	12.5	12.3	
	125 [51.7]	Total kBtu/h [kW]	196.5 [57.6]	189.2 [55.5]	182.6 [53.5]	182.0 [53.3]	175.2 [51.3]	169.1 [49.6]	167.5 [49.1]	161.2 [47.2]	155.6 [45.6]	
		Sens kBtu/h [kW]	133.0 [39.0]	121.0 [35.5]	110.2 [32.3]	166.2 [48.7]	151.2 [44.3]	137.7 [40.4]	167.5 [49.1]	161.2 [47.2]	155.6 [45.6]	
		Power	13.3	13.0	12.8	13.3	13.0	12.8	13.3	13.0	12.8	

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

GROSS SYSTEMS PERFORMANCE DATA—RACHYB240

RACHYB240—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]			9350 [4413]	6675 [3150]	6225 [2938]	9350 [4413]	6675 [3150]	6225 [2938]	9350 [4413]	6675 [3150]	6225 [2938]	
DR ①			.05	.09	.12	.05	.09	.12	.05	.09	.12	
OUTDOOR DRY BULB TEMPERATURE °F [°C]	75 [23.9]	Total kBtu/h [kW]	303.8 [89.0]	283.2 [83.0]	279.7 [82.0]	277.7 [81.4]	258.8 [75.8]	255.6 [74.9]	264.9 [77.6]	246.9 [72.4]	243.9 [71.5]	
		Sens kBtu/h [kW]	181.1 [53.1]	152.5 [44.7]	147.7 [43.3]	211.7 [62.0]	178.4 [52.3]	172.8 [50.6]	257.2 [75.4]	216.7 [63.5]	209.9 [61.5]	
		Power	17.9	17.3	17.1	17.8	17.2	17.0	17.6	17.0	16.9	
	80 [26.7]	Total kBtu/h [kW]	296.3 [86.8]	276.2 [80.9]	272.8 [80.0]	270.1 [79.2]	251.8 [73.8]	248.7 [72.9]	257.4 [75.4]	239.9 [70.3]	237.0 [69.5]	
		Sens kBtu/h [kW]	176.4 [51.7]	148.6 [43.6]	143.9 [42.2]	207.1 [60.7]	174.5 [51.1]	169.0 [49.5]	252.6 [74.0]	212.8 [62.4]	206.1 [60.4]	
		Power	18.8	18.1	18.0	18.7	18.0	17.9	18.6	17.9	17.8	
	85 [29.4]	Total kBtu/h [kW]	289.3 [84.8]	269.6 [79]	266.3 [78.0]	263.1 [77.1]	245.3 [71.9]	242.3 [71.0]	250.4 [73.4]	233.4 [68.4]	230.5 [67.6]	
		Sens kBtu/h [kW]	172.3 [50.5]	145.2 [42.6]	140.6 [41.2]	203.0 [59.5]	171.0 [50.1]	165.6 [48.5]	248.5 [72.8]	209.3 [61.3]	202.7 [59.4]	
		Power	19.7	19.0	18.9	19.6	18.9	18.8	19.5	18.8	18.7	
	90 [32.2]	Total kBtu/h [kW]	282.8 [82.9]	263.6 [77.3]	260.4 [76.3]	256.6 [75.2]	239.2 [70.1]	236.3 [69.3]	243.9 [71.5]	227.3 [66.6]	224.5 [65.8]	
		Sens kBtu/h [kW]	168.8 [49.5]	142.2 [41.7]	137.7 [40.4]	199.5 [58.5]	168.0 [49.2]	162.8 [47.7]	243.9 [71.5]	206.4 [60.5]	199.9 [58.6]	
		Power	20.6	19.9	19.8	20.5	19.8	19.7	20.4	19.7	19.6	
	95 [35]	Total kBtu/h [kW]	276.8 [81.1]	258.0 [75.6]	254.9 [74.7]	250.7 [73.5]	233.6 [68.5]	230.8 [67.6]	237.9 [69.7]	221.7 [65.0]	219.0 [64.2]	
		Sens kBtu/h [kW]	165.9 [48.6]	139.7 [40.9]	135.3 [39.7]	196.5 [57.6]	165.6 [48.5]	160.4 [47.0]	237.9 [69.7]	203.9 [59.8]	197.5 [57.9]	
		Power	21.6	20.8	20.7	21.5	20.7	20.6	21.3	20.6	20.5	
	100 [37.8]	Total kBtu/h [kW]	271.4 [79.5]	252.9 [74.1]	249.8 [73.2]	245.2 [71.9]	228.6 [67.0]	225.8 [66.2]	232.4 [68.1]	216.7 [63.5]	214.0 [62.7]	
		Sens kBtu/h [kW]	163.5 [47.9]	137.7 [40.4]	133.4 [39.1]	194.2 [56.9]	163.6 [47.9]	158.4 [46.4]	232.4 [68.1]	201.9 [59.2]	195.5 [57.3]	
		Power	22.5	21.7	21.6	22.4	21.6	21.5	22.3	21.5	21.4	
	105 [40.6]	Total kBtu/h [kW]	266.4 [78.1]	248.3 [72.8]	245.3 [71.9]	240.3 [70.4]	224.0 [65.7]	221.2 [64.8]	227.5 [66.7]	212.1 [62.2]	209.5 [61.4]	
		Sens kBtu/h [kW]	161.7 [47.4]	136.2 [39.9]	131.9 [38.7]	192.4 [56.4]	162.0 [47.5]	157.0 [46.0]	227.5 [66.7]	200.4 [58.7]	194.1 [56.9]	
		Power	23.4	22.6	22.5	23.3	22.5	22.4	23.2	22.4	22.3	
	110 [43.3]	Total kBtu/h [kW]	262.0 [76.8]	244.2 [71.6]	241.2 [70.7]	235.8 [69.1]	219.8 [64.4]	217.1 [63.6]	223.1 [65.4]	207.9 [60.9]	205.4 [60.2]	
		Sens kBtu/h [kW]	160.5 [47.0]	135.2 [39.6]	130.9 [38.4]	191.1 [56.0]	161.0 [47.2]	155.9 [45.7]	223.1 [65.4]	199.3 [58.4]	193.1 [56.6]	
		Power	24.3	23.5	23.4	24.2	23.4	23.3	24.1	23.3	23.2	
	115 [46.1]	Total kBtu/h [kW]	258.1 [75.6]	240.6 [70.5]	237.6 [69.6]	231.9 [68.0]	216.2 [63.4]	213.5 [62.6]	219.2 [64.2]	204.3 [59.9]	201.8 [59.1]	
		Sens kBtu/h [kW]	159.8 [46.8]	134.6 [39.4]	130.4 [38.2]	190.5 [55.8]	160.5 [47.0]	155.4 [45.5]	219.2 [64.2]	198.8 [58.3]	192.5 [56.4]	
		Power	25.3	24.4	24.3	25.2	24.3	24.2	25.0	24.2	24.0	
	120 [48.9]	Total kBtu/h [kW]	254.7 [74.6]	237.4 [69.6]	234.5 [68.7]	228.6 [67.0]	213.0 [62.4]	210.4 [61.7]	215.8 [63.2]	201.1 [58.9]	198.7 [58.2]	
		Sens kBtu/h [kW]	159.7 [46.8]	134.5 [39.4]	130.3 [38.2]	190.4 [55.8]	160.4 [47.0]	155.3 [45.5]	215.8 [63.2]	198.7 [58.2]	192.5 [56.4]	
		Power	26.2	25.3	25.2	26.1	25.2	25.1	26.0	25.1	24.9	
	125 [51.7]	Total kBtu/h [kW]	251.8 [73.8]	234.7 [68.8]	231.9 [68.0]	225.7 [66.1]	210.4 [61.7]	207.8 [60.9]	212.9 [62.4]	198.5 [58.2]	196.0 [57.4]	
		Sens kBtu/h [kW]	160.2 [47.0]	135.0 [39.6]	130.7 [38.3]	190.9 [55.9]	160.8 [47.1]	155.7 [45.6]	212.9 [62.4]	198.5 [58.2]	192.9 [56.5]	
		Power	27.1	26.2	26.0	27.0	26.1	25.9	26.9	26.0	25.8	

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

GROSS SYSTEMS PERFORMANCE DATA—RACHYB300

RACHYB300—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]			12300 [5805]	8800 [4153]	8200 [3870]	12300 [5805]	8800 [4153]	8200 [3870]	12300 [5805]	8800 [4153]	8200 [3870]	
DR ①			.05	.09	.12	.05	.09	.12	.05	.09	.12	
OUTDOOR DRY BULB TEMPERATURE °F [°C]	75 [23.9]	Total kBtu/h [kW]	387.7 [113.6]	361.5 [105.9]	357.1 [104.7]	363.9 [106.7]	339.4 [99.5]	335.2 [98.2]	344.9 [101.1]	321.6 [94.3]	317.6 [93.1]	
		Sens kBtu/h [kW]	233.7 [68.5]	197.1 [57.8]	190.8 [55.9]	281.2 [82.4]	237.2 [69.5]	229.6 [67.3]	333.9 [97.9]	281.6 [82.5]	272.7 [79.9]	
		Power	25.1	24.3	24.1	25.2	24.3	24.2	25.1	24.2	24.1	
	80 [26.7]	Total kBtu/h [kW]	379.3 [111.2]	353.7 [103.7]	349.4 [102.4]	355.6 [104.2]	331.6 [97.2]	327.5 [96.0]	336.5 [98.6]	313.8 [92.0]	309.9 [90.8]	
		Sens kBtu/h [kW]	229.6 [67.3]	193.7 [56.8]	187.5 [55.0]	277.2 [81.2]	233.8 [68.5]	226.3 [66.3]	329.9 [96.7]	278.2 [81.5]	269.4 [79.0]	
		Power	26.4	25.5	25.4	26.5	25.6	25.4	26.4	25.5	25.3	
	85 [29.4]	Total kBtu/h [kW]	370.9 [108.7]	345.9 [101.4]	341.6 [100.1]	347.1 [101.7]	323.7 [94.9]	319.7 [93.7]	328.0 [96.1]	305.9 [89.7]	302.1 [88.5]	
		Sens kBtu/h [kW]	225.5 [66.1]	190.2 [55.7]	184.1 [54.0]	273.0 [80.0]	230.3 [67.5]	222.9 [65.3]	325.7 [95.5]	274.7 [80.5]	266.0 [78.0]	
		Power	27.8	26.8	26.6	27.8	26.8	26.7	27.7	26.7	26.6	
	90 [32.2]	Total kBtu/h [kW]	362.3 [106.2]	337.9 [99.0]	333.7 [97.8]	338.6 [99.2]	315.7 [92.5]	311.8 [91.4]	319.5 [93.6]	297.9 [87.3]	294.3 [86.3]	
		Sens kBtu/h [kW]	221.2 [64.8]	186.6 [54.7]	180.7 [53.0]	268.8 [78.8]	226.7 [66.4]	219.5 [64.3]	319.5 [93.6]	271.1 [79.5]	262.5 [76.9]	
		Power	29.1	28.1	27.9	29.1	28.1	27.9	29.0	28.0	27.8	
	95 [35]	Total kBtu/h [kW]	353.7 [103.7]	329.8 [96.7]	325.7 [95.5]	329.9 [96.7]	307.7 [90.2]	303.9 [89.1]	310.8 [91.1]	289.9 [85.0]	286.3 [83.9]	
		Sens kBtu/h [kW]	216.9 [63.6]	182.9 [53.6]	177.1 [51.9]	264.4 [77.5]	223.0 [65.4]	215.9 [63.3]	310.8 [91.1]	267.5 [78.4]	259.0 [75.9]	
		Power	30.4	29.3	29.2	30.4	29.4	29.2	30.3	29.3	29.1	
	100 [37.8]	Total kBtu/h [kW]	344.9 [101.1]	321.7 [94.3]	317.7 [93.1]	321.2 [94.1]	299.5 [87.8]	295.8 [86.7]	302.1 [88.5]	281.7 [82.6]	278.2 [81.5]	
		Sens kBtu/h [kW]	212.4 [62.3]	179.2 [52.5]	173.5 [50.8]	260.0 [76.2]	219.3 [64.3]	212.3 [62.2]	302.1 [88.5]	263.7 [77.3]	255.3 [74.8]	
		Power	31.7	30.6	30.4	31.7	30.6	30.4	31.6	30.5	30.4	
	105 [40.6]	Total kBtu/h [kW]	336.1 [98.5]	313.4 [91.9]	309.5 [90.7]	312.3 [91.5]	291.3 [85.4]	287.7 [84.3]	293.3 [86.0]	273.5 [80.2]	270.1 [79.2]	
		Sens kBtu/h [kW]	207.9 [60.9]	175.3 [51.4]	169.7 [49.7]	255.4 [74.9]	215.4 [63.1]	208.6 [61.1]	293.3 [86.0]	259.9 [76.2]	251.6 [73.7]	
		Power	33.0	31.9	31.7	33.0	31.9	31.7	32.9	31.8	31.6	
	110 [43.3]	Total kBtu/h [kW]	327.1 [95.9]	305.1 [89.4]	301.3 [88.3]	303.4 [88.9]	282.9 [82.9]	279.4 [81.9]	284.3 [83.3]	265.1 [77.7]	261.9 [76.8]	
		Sens kBtu/h [kW]	203.2 [59.6]	171.4 [50.2]	165.9 [48.6]	250.7 [73.5]	211.5 [62.0]	204.7 [60.0]	284.3 [83.3]	255.9 [75.0]	247.8 [72.6]	
		Power	34.3	33.1	32.9	34.3	33.2	33.0	34.2	33.1	32.9	
	115 [46.1]	Total kBtu/h [kW]	318.1 [93.2]	296.6 [86.9]	293.0 [85.9]	294.4 [86.3]	274.5 [80.5]	271.1 [79.5]	275.3 [80.7]	256.7 [75.2]	253.5 [74.3]	
		Sens kBtu/h [kW]	198.4 [58.1]	167.3 [49.0]	162.0 [47.5]	245.9 [72.1]	207.4 [60.8]	200.8 [58.9]	275.3 [80.7]	251.9 [73.8]	243.9 [71.5]	
		Power	35.6	34.4	34.2	35.6	34.4	34.2	35.5	34.3	34.1	
	120 [48.9]	Total kBtu/h [kW]	309.0 [90.6]	288.1 [84.4]	284.6 [83.4]	285.2 [83.6]	266.0 [78.0]	262.7 [77.0]	266.1 [78.0]	248.2 [72.7]	245.1 [71.8]	
		Sens kBtu/h [kW]	193.5 [56.7]	163.2 [47.8]	158.0 [46.3]	241.1 [70.7]	203.3 [59.6]	196.9 [57.7]	266.1 [78.0]	247.8 [72.6]	239.9 [70.3]	
		Power	36.9	35.7	35.4	36.9	35.7	35.5	36.8	35.6	35.4	
	125 [51.7]	Total kBtu/h [kW]	299.7 [87.8]	279.5 [81.9]	276.1 [80.9]	276.0 [80.9]	257.4 [75.4]	254.2 [74.5]	256.9 [75.3]	239.6 [70.2]	236.6 [69.3]	
		Sens kBtu/h [kW]	188.5 [55.2]	159.0 [46.6]	154.0 [45.1]	236.1 [69.2]	199.1 [58.4]	192.8 [56.5]	256.9 [75.3]	239.6 [70.2]	235.8 [69.1]	
		Power	38.2	36.9	36.7	38.2	36.9	36.7	38.2	36.9	36.6	

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 x CFM x (1 – DR) x (dbE – 80)].

[ ] Designates Metric Conversions

GROSS SYSTEMS PERFORMANCE DATA (LOW HUMIDIDRY MODE)—RACHYB180

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]			3000 [1416]	2500 [1180]	2000 [944]	3000 [1416]	2500 [1180]	2000 [944]	3000 [1416]	2500 [1180]	2000 [944]
OUTDOOR DRY BULB TEMPERATURE °F [°C]	60 [15.6]	Total kBtu/h [kW]	43.7 [12.8]	42.1 [12.3]	40.6 [11.9]	45.2 [13.2]	43.6 [12.8]	42.0 [12.3]	39.8 [11.7]	38.4 [11.3]	37.0 [10.9]
		Sens kBtu/h [kW]	3.4 [1.0]	3.1 [0.9]	2.8 [0.8]	10.9 [3.2]	10.0 [2.9]	9.0 [2.7]	12.9 [3.8]	11.8 [3.4]	10.7 [3.1]
		Power	7.5	7.4	7.3	7.5	7.4	7.2	7.5	7.4	7.2
	65 [18.3]	Total kBtu/h [kW]	40.5 [11.9]	39.1 [11.5]	37.7 [11.0]	42.0 [12.3]	40.5 [11.9]	39.1 [11.4]	36.6 [10.7]	35.4 [10.4]	34.1 [10.0]
		Sens kBtu/h [kW]	0.8 [0.2]	0.7 [0.2]	0.6 [0.2]	8.3 [2.4]	7.6 [2.2]	6.9 [2.0]	10.2 [3.0]	9.4 [2.7]	8.5 [2.5]
		Power	7.7	7.6	7.4	7.7	7.5	7.4	7.6	7.5	7.4
	70 [21.1]	Total kBtu/h [kW]	37.8 [11.1]	36.5 [10.7]	35.1 [10.3]	39.3 [11.5]	37.9 [11.1]	36.5 [10.7]	33.9 [9.9]	32.7 [9.6]	31.6 [9.2]
		Sens kBtu/h [kW]	-1.5 [-0.4]	-1.4 [-0.4]	-1.2 [-0.4]	6.1 [1.8]	5.5 [1.6]	5.0 [1.5]	8.0 [2.3]	7.3 [2.1]	6.6 [1.9]
		Power	7.9	7.7	7.6	7.8	7.7	7.6	7.8	7.7	7.6
	75 [23.9]	Total kBtu/h [kW]	35.5 [10.4]	34.3 [10.0]	33.0 [9.7]	37.1 [10.9]	35.8 [10.5]	34.5 [10.1]	31.7 [9.3]	30.6 [9.0]	29.5 [8.6]
		Sens kBtu/h [kW]	-3.3 [-1.0]	-3.0 [-0.9]	-2.8 [-0.8]	4.2 [1.2]	3.8 [1.1]	3.5 [1.0]	6.2 [1.8]	5.6 [1.7]	5.1 [1.5]
		Power	8.1	7.9	7.8	8.0	7.9	7.8	8.0	7.9	7.7
	80 [26.7]	Total kBtu/h [kW]	33.8 [9.9]	32.6 [9.5]	31.4 [9.2]	35.3 [10.3]	34.0 [10.0]	32.8 [9.6]	29.9 [8.8]	28.9 [8.5]	27.8 [8.2]
		Sens kBtu/h [kW]	-4.8 [-1.4]	-4.4 [-1.3]	-4.0 [-1.2]	2.7 [0.8]	2.5 [0.7]	2.3 [0.7]	4.7 [1.4]	4.3 [1.3]	3.9 [1.1]
		Power	8.3	8.1	8.0	8.2	8.1	7.9	8.2	8.1	7.9
	85 [29.4]	Total kBtu/h [kW]	32.5 [9.5]	31.3 [9.2]	30.2 [8.8]	34.0 [10.0]	32.8 [9.6]	31.6 [9.3]	28.6 [8.4]	27.6 [8.1]	26.6 [7.8]
		Sens kBtu/h [kW]	-5.9 [-1.7]	-5.4 [-1.6]	-4.9 [-1.4]	1.7 [0.5]	1.5 [0.4]	1.4 [0.4]	3.6 [1.1]	3.3 [1.0]	3.0 [0.9]
		Power	8.5	8.3	8.2	8.5	8.3	8.2	8.4	8.3	8.1
	90 [32.2]	Total kBtu/h [kW]	31.6 [9.3]	30.5 [8.9]	29.4 [8.6]	33.1 [9.7]	32.0 [9.4]	30.8 [9.0]	27.8 [8.1]	26.8 [7.9]	25.8 [7.6]
		Sens kBtu/h [kW]	-6.6 [-1.9]	-6.0 [-1.8]	-5.4 [-1.6]	1.0 [0.3]	0.9 [0.3]	0.8 [0.2]	2.9 [0.9]	2.7 [0.8]	2.4 [0.7]
		Power	8.7	8.6	8.4	8.7	8.5	8.4	8.7	8.5	8.4

GROSS SYSTEMS PERFORMANCE DATA (HIGH HUMIDIDRY MODE)—RACHYB180

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]			7200 [3398]	5275 [2490]	4800 [2265]	7200 [3398]	5275 [2490]	4800 [2265]	7200 [3398]	5275 [2490]	4800 [2265]
OUTDOOR DRY BULB TEMPERATURE °F [°C]	60 [15.6]	Total kBtu/h [kW]	156.3 [45.8]	146.6 [43.0]	144.2 [42.3]	142.7 [41.8]	133.8 [39.2]	131.7 [38.6]	-271.9 [-79.7]	-255.0 [-74.7]	-250.8 [-73.5]
		Sens kBtu/h [kW]	74.5 [21.8]	63.6 [18.6]	60.9 [17.9]	88.5 [25.9]	75.6 [22.2]	72.4 [21.2]	-308.6 [-90.4]	-263.7 [-77.3]	-252.6 [-74.0]
		Power	16.1	15.6	15.4	15.2	14.7	14.6	11.9	11.6	11.5
	70 [21.1]	Total kBtu/h [kW]	150.3 [44.0]	140.9 [41.3]	138.6 [40.6]	136.7 [40.1]	128.2 [37.6]	126.1 [36.9]	-278.0 [-81.5]	-260.7 [-76.4]	-256.4 [-75.1]
		Sens kBtu/h [kW]	69.6 [20.4]	59.5 [17.4]	57.0 [16.7]	83.7 [24.5]	71.5 [20.9]	68.5 [20.1]	-313.4 [-91.8]	-267.8 [-78.5]	-256.5 [-75.2]
		Power	17.4	16.9	16.7	16.5	16.0	15.9	13.3	12.8	12.7
	80 [26.7]	Total kBtu/h [kW]	144.0 [42.2]	135.0 [39.6]	132.8 [38.9]	130.4 [38.2]	122.3 [35.8]	120.3 [35.3]	-284.2 [-83.3]	-266.6 [-78.1]	-262.2 [-76.8]
		Sens kBtu/h [kW]	64.7 [19.0]	55.3 [16.2]	53.0 [15.5]	78.8 [23.1]	67.3 [19.7]	64.5 [18.9]	-318.3 [-93.3]	-272.0 [-79.7]	-262.2 [-76.8]
		Power	18.5	17.9	17.8	17.6	17.1	17.0	14.4	13.9	13.8
	90 [32.2]	Total kBtu/h [kW]	137.5 [40.3]	128.9 [37.8]	126.8 [37.2]	123.9 [36.3]	116.2 [34.1]	114.3 [33.5]	-290.8 [-85.2]	-272.7 [-79.9]	-268.2 [-78.6]
		Sens kBtu/h [kW]	59.8 [17.5]	51.1 [15.0]	48.9 [14.3]	73.8 [21.6]	63.1 [18.5]	60.4 [17.7]	-323.3 [-94.7]	-276.2 [-80.9]	-268.2 [-78.6]
		Power	19.5	18.8	18.7	18.6	18.0	17.9	15.3	14.8	14.7
	100 [37.8]	Total kBtu/h [kW]	130.7 [38.3]	122.6 [35.9]	120.6 [35.3]	117.2 [34.3]	109.9 [32.2]	108.1 [31.7]	-297.5 [-87.2]	-279.0 [-81.8]	-274.4 [-80.4]
		Sens kBtu/h [kW]	54.8 [16.0]	46.8 [13.7]	44.8 [13.1]	68.8 [20.2]	58.8 [17.2]	56.3 [16.5]	-328.3 [-96.2]	-280.5 [-82.2]	-274.4 [-80.4]
		Power	20.2	19.6	19.4	19.3	18.7	18.6	16.0	15.5	15.4
	110 [43.3]	Total kBtu/h [kW]	123.7 [36.3]	116.0 [34.0]	114.1 [33.5]	110.2 [32.3]	103.3 [30.3]	101.6 [29.8]	-304.5 [-89.2]	-285.6 [-83.7]	-280.9 [-82.3]
		Sens kBtu/h [kW]	49.7 [14.6]	42.4 [12.4]	40.7 [11.9]	63.7 [18.7]	54.4 [15.9]	52.1 [15.3]	-333.4 [-97.7]	-285.6 [-83.7]	-280.9 [-82.3]
		Power	20.7	20.1	19.9	19.9	19.2	19.1	16.6	16.1	15.9
	120 [48.9]	Total kBtu/h [kW]	116.5 [34.1]	109.3 [32.0]	107.5 [31.5]	102.9 [30.2]	96.5 [28.3]	95.0 [27.8]	-311.7 [-91.3]	-292.3 [-85.7]	-287.5 [-84.3]
		Sens kBtu/h [kW]	44.5 [13.0]	38.0 [11.1]	36.4 [10.7]	58.5 [17.2]	50.0 [14.7]	47.9 [14.0]	-338.5 [-99.2]	-292.3 [-85.7]	-287.5 [-84.3]
		Power	21.1	20.4	20.3	20.2	19.6	19.4	16.9	16.4	16.3

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

GROSS SYSTEMS PERFORMANCE DATA (LOW HUMIDIDRY MODE)—RACHYB240

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]			3660 [1727]	3050 [1439]	2440 [1152]	3660 [1727]	3050 [1439]	2440 [1152]	3660 [1727]	3050 [1439]	2440 [1152]
OUTDOOR DRY BULB TEMPERATURE °F [°C]	60 [15.6]	Total kBtu/h [kW]	67.9 [19.9]	65.5 [19.2]	63.2 [18.5]	65.3 [19.1]	63.0 [18.5]	60.7 [17.8]	62.0 [18.2]	59.8 [17.5]	57.6 [16.9]
		Sens kBtu/h [kW]	4.6 [1.3]	4.2 [1.2]	3.8 [1.1]	9.7 [2.8]	8.9 [2.6]	8.1 [2.4]	16.0 [4.7]	14.7 [4.3]	13.3 [3.9]
		Power	9.7	9.6	9.4	9.7	9.5	9.4	9.7	9.5	9.4
	65 [18.3]	Total kBtu/h [kW]	66.8 [19.6]	64.4 [18.9]	62.1 [18.2]	64.1 [18.8]	61.9 [18.1]	59.6 [17.5]	60.8 [17.8]	58.7 [17.2]	56.6 [16.6]
		Sens kBtu/h [kW]	3.4 [1.0]	3.1 [0.9]	2.8 [0.8]	8.5 [2.5]	7.8 [2.3]	7.1 [2.1]	14.9 [4.4]	13.6 [4.0]	12.3 [3.6]
		Power	9.8	9.7	9.5	9.8	9.6	9.5	9.8	9.6	9.5
	70 [21.1]	Total kBtu/h [kW]	65.3 [19.2]	63.1 [18.5]	60.8 [17.8]	62.7 [18.4]	60.5 [17.7]	58.3 [17.1]	59.4 [17.4]	57.3 [16.8]	55.2 [16.2]
		Sens kBtu/h [kW]	2.1 [0.6]	1.9 [0.6]	1.7 [0.5]	7.2 [2.1]	6.6 [1.9]	6.0 [1.8]	13.5 [4.0]	12.4 [3.6]	11.2 [3.3]
		Power	10.0	9.8	9.6	9.9	9.7	9.6	9.9	9.8	9.6
	75 [23.9]	Total kBtu/h [kW]	63.6 [18.6]	61.4 [18.0]	59.1 [17.3]	60.9 [17.9]	58.8 [17.2]	56.7 [16.6]	57.6 [16.9]	55.6 [16.3]	53.6 [15.7]
		Sens kBtu/h [kW]	0.6 [0.2]	0.5 [0.2]	0.5 [0.1]	5.7 [1.7]	5.3 [1.5]	4.8 [1.4]	12.1 [3.5]	11.0 [3.2]	10.0 [2.9]
		Power	10.1	9.9	9.8	10.1	9.9	9.7	10.1	9.9	9.7
	80 [26.7]	Total kBtu/h [kW]	61.6 [18.0]	59.4 [17.4]	57.2 [16.8]	58.9 [17.3]	56.8 [16.7]	54.8 [16.0]	55.6 [16.3]	53.6 [15.7]	51.7 [15.1]
		Sens kBtu/h [kW]	-1.0 [-0.3]	-0.9 [-0.3]	-0.9 [-0.3]	4.1 [1.2]	3.8 [1.1]	3.4 [1.0]	10.4 [3.1]	9.5 [2.8]	8.7 [2.5]
		Power	10.3	10.1	9.9	10.2	10.1	9.9	10.2	10.1	9.9
	85 [29.4]	Total kBtu/h [kW]	59.2 [17.3]	57.1 [16.7]	55.0 [16.1]	56.5 [16.6]	54.6 [16.0]	52.6 [15.4]	53.2 [15.6]	51.4 [15.1]	49.5 [14.5]
		Sens kBtu/h [kW]	-2.8 [-0.8]	-2.6 [-0.8]	-2.3 [-0.7]	2.3 [0.7]	2.1 [0.6]	1.9 [0.6]	8.7 [2.5]	7.9 [2.3]	7.2 [2.1]
		Power	10.5	10.3	10.1	10.4	10.2	10.1	10.4	10.3	10.1
	90 [32.2]	Total kBtu/h [kW]	56.5 [16.6]	54.6 [16.0]	52.6 [15.4]	53.9 [15.8]	52.0 [15.2]	50.1 [14.7]	50.6 [14.8]	48.8 [14.3]	47.0 [13.8]
		Sens kBtu/h [kW]	-4.8 [-1.4]	-4.4 [-1.3]	-3.9 [-1.2]	0.4 [0.1]	0.4 [0.1]	0.3 [0.1]	6.7 [2.0]	6.1 [1.8]	5.6 [1.6]
		Power	10.7	10.5	10.3	10.6	10.5	10.3	10.7	10.5	10.3

GROSS SYSTEMS PERFORMANCE DATA (HIGH HUMIDIDRY MODE)—RACHYB240

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]			9600 [4531]	6675 [3150]	6400 [3020]	9600 [4531]	6675 [3150]	6400 [3020]	9600 [4531]	6675 [3150]	6400 [3020]
OUTDOOR DRY BULB TEMPERATURE °F [°C]	60 [15.6]	Total kBtu/h [kW]	773.8 [226.8]	716.7 [210.0]	711.4 [208.5]	204.8 [60.0]	189.7 [55.6]	188.2 [55.2]	199.0 [58.3]	184.3 [54.0]	182.9 [53.6]
		Sens kBtu/h [kW]	578.7 [169.6]	480.4 [140.8]	471.2 [138.1]	115.2 [33.7]	95.6 [28.0]	93.8 [27.5]	131.4 [38.5]	109.1 [32.0]	107.0 [31.4]
		Power	-21.2	-20.4	-20.4	14.1	13.5	13.5	14.0	13.5	13.5
	70 [21.1]	Total kBtu/h [kW]	767.7 [225.0]	711.1 [208.4]	705.8 [206.8]	198.7 [58.2]	184.0 [53.9]	182.6 [53.5]	192.9 [56.5]	178.7 [52.4]	177.3 [52.0]
		Sens kBtu/h [kW]	573.8 [168.1]	476.4 [139.6]	467.2 [136.9]	110.3 [32.3]	91.5 [26.8]	89.8 [26.3]	126.5 [37.1]	105.0 [30.8]	103.0 [30.2]
		Power	-20.5	-19.8	-19.7	14.8	14.2	14.2	14.7	14.2	14.1
	80 [26.7]	Total kBtu/h [kW]	759.4 [222.5]	703.4 [206.1]	698.1 [204.6]	190.4 [55.8]	176.3 [51.7]	175.0 [51.3]	184.6 [54.1]	171.0 [50.1]	169.7 [49.7]
		Sens kBtu/h [kW]	567.2 [166.2]	470.9 [138.0]	461.9 [135.3]	103.7 [30.4]	86.1 [25.2]	84.4 [24.7]	119.9 [35.1]	99.5 [29.2]	97.6 [28.6]
		Power	-19.5	-18.8	-18.7	15.8	15.2	15.2	15.8	15.2	15.1
	90 [32.2]	Total kBtu/h [kW]	749.0 [219.5]	693.7 [203.3]	688.5 [201.8]	179.9 [52.7]	166.6 [48.8]	165.4 [48.5]	174.2 [51.0]	161.3 [47.3]	160.1 [46.9]
		Sens kBtu/h [kW]	558.9 [163.8]	464.0 [136.0]	455.1 [133.4]	95.4 [28.0]	79.2 [23.2]	77.7 [22.8]	111.6 [32.7]	92.7 [27.2]	90.9 [26.6]
		Power	-18.1	-17.5	-17.4	17.2	16.5	16.5	17.1	16.5	16.4
	100 [37.8]	Total kBtu/h [kW]	736.3 [215.8]	682.0 [199.9]	676.9 [198.4]	167.3 [49.0]	154.9 [45.4]	153.8 [45.1]	161.5 [47.3]	149.6 [43.8]	148.5 [43.5]
		Sens kBtu/h [kW]	548.9 [160.9]	455.7 [133.5]	447.0 [131.0]	85.4 [25.0]	70.9 [20.8]	69.5 [20.4]	101.6 [29.8]	84.4 [24.7]	82.7 [24.2]
		Power	-16.4	-15.8	-15.8	18.9	18.2	18.1	18.8	18.1	18.1
	110 [43.3]	Total kBtu/h [kW]	721.5 [211.4]	668.3 [195.8]	663.3 [194.4]	152.5 [44.7]	141.2 [41.4]	140.1 [41.1]	146.7 [43.0]	135.9 [39.8]	134.9 [39.5]
		Sens kBtu/h [kW]	537.2 [157.4]	446.0 [130.7]	437.4 [128.2]	73.7 [21.6]	61.2 [17.9]	60.0 [17.6]	89.9 [26.4]	74.7 [21.9]	73.2 [21.5]
		Power	-14.4	-13.9	-13.8	20.9	20.1	20.0	20.8	20.1	20.0
	120 [48.9]	Total kBtu/h [kW]	704.5 [206.5]	652.5 [191.2]	647.7 [189.8]	135.5 [39.7]	125.5 [36.8]	124.5 [36.5]	129.7 [38.0]	120.1 [35.2]	119.2 [34.9]
		Sens kBtu/h [kW]	523.8 [153.5]	434.9 [127.4]	426.5 [125.0]	60.3 [17.7]	50.1 [14.7]	49.1 [14.4]	76.5 [22.4]	63.5 [18.6]	62.3 [18.3]
		Power	-12.1	-11.6	-11.6	23.2	22.4	22.3	23.2	22.3	22.3

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

GROSS SYSTEMS PERFORMANCE DATA (LOW HUMIDIDRY MODE)—RACHYB300

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]			5040 [2379]	4200 [1982]	3360 [1586]	5040 [2379]	4200 [1982]	3360 [1586]	5040 [2379]	4200 [1982]	3360 [1586]
OUTDOOR DRY BULB TEMPERATURE °F [°C]	60 [15.6]	Total kBtu/h [kW]	79.2 [23.2]	76.4 [22.4]	73.6 [21.6]	75.6 [22.1]	72.9 [21.4]	70.3 [20.6]	70.8 [20.7]	68.3 [20.0]	65.8 [19.3]
		Sens kBtu/h [kW]	8.7 [2.6]	8.0 [2.3]	7.2 [2.1]	14.7 [4.3]	13.4 [3.9]	12.2 [3.6]	21.1 [6.2]	19.3 [5.7]	17.5 [5.1]
		Power	10.7	10.5	10.3	10.7	10.5	10.3	10.6	10.4	10.2
	65 [18.3]	Total kBtu/h [kW]	76.9 [22.5]	74.2 [21.8]	71.5 [21.0]	73.3 [21.5]	70.7 [20.7]	68.1 [20.0]	68.5 [20.1]	66.1 [19.4]	63.7 [18.7]
		Sens kBtu/h [kW]	7.0 [2.0]	6.4 [1.9]	5.8 [1.7]	12.9 [3.8]	11.8 [3.5]	10.7 [3.1]	19.3 [5.7]	17.7 [5.2]	16.0 [4.7]
		Power	10.8	10.6	10.5	10.8	10.6	10.4	10.7	10.6	10.4
	70 [21.1]	Total kBtu/h [kW]	74.5 [21.8]	71.9 [21.1]	69.3 [20.3]	70.9 [20.8]	68.4 [20.0]	65.9 [19.3]	66.1 [19.4]	63.8 [18.7]	61.5 [18.0]
		Sens kBtu/h [kW]	5.0 [1.5]	4.6 [1.4]	4.2 [1.2]	11.0 [3.2]	10.1 [3.0]	9.1 [2.7]	17.4 [5.1]	15.9 [4.7]	14.4 [4.2]
		Power	11.0	10.8	10.6	11.0	10.8	10.6	10.9	10.7	10.5
	75 [23.9]	Total kBtu/h [kW]	72.0 [21.1]	69.5 [20.4]	66.9 [19.6]	68.3 [20.0]	65.9 [19.3]	63.5 [18.6]	63.5 [18.6]	61.3 [18.0]	59.1 [17.3]
		Sens kBtu/h [kW]	2.9 [0.9]	2.7 [0.8]	2.4 [0.7]	8.9 [2.6]	8.2 [2.4]	7.4 [2.2]	15.3 [4.5]	14.0 [4.1]	12.7 [3.7]
		Power	11.2	11.0	10.8	11.1	10.9	10.8	11.1	10.9	10.7
	80 [26.7]	Total kBtu/h [kW]	69.3 [20.3]	66.9 [19.6]	64.4 [18.9]	65.7 [19.2]	63.3 [18.6]	61.0 [17.9]	60.9 [17.8]	58.7 [17.2]	56.6 [16.6]
		Sens kBtu/h [kW]	0.7 [0.2]	0.6 [0.2]	0.6 [0.2]	6.6 [1.9]	6.1 [1.8]	5.5 [1.6]	13.0 [3.8]	11.9 [3.5]	10.8 [3.2]
		Power	11.4	11.2	11.0	11.3	11.1	10.9	11.3	11.1	10.9
	85 [29.4]	Total kBtu/h [kW]	66.5 [19.5]	64.1 [18.8]	61.8 [18.1]	62.8 [18.4]	60.6 [17.8]	58.4 [17.1]	58.0 [17.0]	56.0 [16.4]	54.0 [15.8]
		Sens kBtu/h [kW]	-1.8 [-0.5]	-1.6 [-0.5]	-1.5 [-0.4]	4.2 [1.2]	3.8 [1.1]	3.5 [1.0]	10.6 [3.1]	9.7 [2.8]	8.8 [2.6]
		Power	11.6	11.4	11.2	11.6	11.4	11.2	11.5	11.3	11.1
	90 [32.2]	Total kBtu/h [kW]	63.5 [18.6]	61.3 [18.0]	59.1 [17.3]	59.9 [17.5]	57.8 [16.9]	55.7 [16.3]	55.1 [16.1]	53.1 [15.6]	51.2 [15.0]
		Sens kBtu/h [kW]	-4.4 [-1.3]	-4.0 [-1.2]	-3.6 [-1.1]	1.6 [0.5]	1.5 [0.4]	1.3 [0.4]	8.0 [2.3]	7.3 [2.1]	6.6 [1.9]
		Power	11.8	11.6	11.4	11.8	11.6	11.4	11.8	11.6	11.3

GROSS SYSTEMS PERFORMANCE DATA (HIGH HUMIDIDRY MODE)—RACHYB300

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]			12000 [5663]	8790 [4148]	8000 [3776]	12000 [5663]	8790 [4148]	8000 [3776]	12000 [5663]	8790 [4148]	8000 [3776]
OUTDOOR DRY BULB TEMPERATURE °F [°C]	60 [15.6]	Total kBtu/h [kW]	268.2 [78.6]	251.5 [73.7]	247.4 [72.5]	258.5 [75.8]	242.4 [71.0]	238.5 [69.9]	252.7 [74.0]	236.9 [69.4]	233.1 [68.3]
		Sens kBtu/h [kW]	101.6 [29.8]	86.8 [25.4]	83.1 [24.4]	147.3 [43.2]	125.9 [36.9]	120.6 [35.3]	167.3 [49.0]	142.9 [41.9]	136.9 [40.1]
		Power	19.0	18.4	18.3	18.8	18.2	18.1	19.0	18.4	18.3
	70 [21.1]	Total kBtu/h [kW]	257.4 [75.4]	241.4 [70.7]	237.5 [69.6]	247.8 [72.6]	232.4 [68.1]	228.6 [67.0]	241.9 [70.9]	226.9 [66.5]	223.2 [65.4]
		Sens kBtu/h [kW]	94.3 [27.6]	80.5 [23.6]	77.2 [22.6]	140.0 [41.0]	119.6 [35.1]	114.6 [33.6]	160.0 [46.9]	136.7 [40.1]	130.9 [38.4]
		Power	20.2	19.6	19.5	20.1	19.4	19.3	20.2	19.6	19.5
	80 [26.7]	Total kBtu/h [kW]	245.7 [72.0]	230.4 [67.5]	226.6 [66.4]	236 .0[69.2]	221.3 [64.9]	217.7 [63.8]	230.2 [67.4]	215.8 [63.2]	212.3 [62.2]
		Sens kBtu/h [kW]	86.1 [25.2]	73.5 [21.6]	70.5 [20.6]	131.8 [38.6]	112.6 [33.0]	107.9 [31.6]	151.8 [44.5]	129.7 [38.0]	124.2 [36.4]
		Power	21.8	21.1	21.0	21.6	20.9	20.8	21.8	21.1	21.0
	90 [32.2]	Total kBtu/h [kW]	232.8 [68.2]	218.3 [64.0]	214.8 [62.9]	223.2 [65.4]	209.3 [61.3]	205.8 [60.3]	217.3 [63.7]	203.8 [59.7]	200.5 [58.7]
		Sens kBtu/h [kW]	77.0 [22.6]	65.8 [19.3]	63.0 [18.5]	122.7 [36.0]	104.9 [30.7]	100.5 [29.4]	142.7 [41.8]	121.9 [35.7]	116.8 [34.2]
		Power	23.7	23.0	22.8	23.5	22.8	22.6	23.7	23.0	22.8
	100 [37.8]	Total kBtu/h [kW]	218.9 [64.1]	205.3 [60.2]	201.9 [59.2]	209.3 [61.3]	196.2 [57.5]	193.0 [56.6]	203.4 [59.6]	190.7 [55.9]	187.6 [55.0]
		Sens kBtu/h [kW]	67.0 [19.6]	57.2 [16.8]	54.8 [16.1]	112.7 [33.0]	96.3 [28.2]	92.3 [27.0]	132.7 [38.9]	113.4 [33.2]	108.6 [31.8]
		Power	26	25.2	25.0	25.8	25.0	24.8	26.0	25.2	25.0
	110 [43.3]	Total kBtu/h [kW]	203.9 [59.8]	191.3 [56.0]	188.1 [55.1]	194.3 [56.9]	182.2 [53.4]	179.2 [52.5]	188.4 [55.2]	176.7 [51.8]	173.8 [50.9]
		Sens kBtu/h [kW]	56.1 [16.4]	47.9 [14.0]	45.9 [13.5]	101.9 [29.8]	87.0 [25.5]	83.4 [24.4]	121.8 [35.7]	104.1 [30.5]	99.7 [29.2]
		Power	28.6	27.7	27.5	28.4	27.5	27.3	28.6	27.7	27.5
	120 [48.9]	Total kBtu/h [kW]	187.9 [55.1]	176.2 [51.6]	173.3 [50.8]	178.3 [52.2]	167.2 [49.0]	164.4 [48.2]	172.4 [50.5]	161.7 [47.4]	159.0 [46.6]
		Sens kBtu/h [kW]	44.3 [13.0]	37.9 [11.1]	36.3 [10.6]	90.1 [26.4]	77.0 [22.6]	73.7 [21.6]	110.0 [32.2]	94.0 [27.5]	90.1 [26.4]
		Power	31.5	30.5	30.3	31.3	30.4	30.1	31.5	30.6	30.3

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

AIRFLOW PERFORMANCE— 15 TON [52.7 kW] — 60 Hz — DOWNFLOW

Air Flow CFM [L/s]	Model RACHYB180 Voltage 208/230, 460 — 3 phase																																					
	External Static Pressure—Inches of Water [kPa]																																					
	0.1 [.02]		0.2 [.05]		0.3 [.07]		0.4 [.10]		0.5 [.12]		0.6 [.15]		0.7 [.17]		0.8 [.20]		0.9 [.22]		1.0 [.25]		1.1 [.27]		1.2 [.30]		1.3 [.32]		1.4 [.35]		1.5 [.37]		1.6 [.40]		1.7 [.42]		1.8 [.45]		1.9 [.47]		2.0 [.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
4800 [2265]	—	—	—	—	—	—	—	—	558	1427	591	1572	623	1727	654	1892	684	2066	714	2249	742	2442	770	2644	797	2856	823	3077	848	3308	873	3548	896	3797	919	4056	—	—	—	—
5000 [2359]	—	—	—	—	—	—	—	—	565	1500	597	1650	629	1809	660	1978	690	2156	719	2343	747	2540	775	2747	801	2962	827	3188	852	3422	876	3667	899	3920	921	4183	—	—	—	—
5200 [2454]	—	—	—	—	—	—	—	—	572	1579	605	1733	636	1896	666	2069	696	2251	725	2443	752	2644	779	2854	806	3074	831	3304	855	3543	879	3791	902	4048	923	4316	—	—	—	—
5400 [2548]	—	—	—	—	—	—	—	—	580	1663	612	1821	643	1989	673	2165	702	2352	730	2548	758	2753	784	2967	810	3192	835	3425	859	3668	882	3920	904	4182	926	4454	—	—	—	—
5600 [2643]	—	—	—	—	—	—	556	1600	588	1753	619	1915	650	2086	679	2267	708	2458	736	2658	763	2867	789	3086	815	3314	839	3552	863	3799	886	4056	908	4321	—	—	—	—	—	—
5800 [2737]	—	—	—	—	—	—	564	1691	596	1848	627	2014	657	2190	686	2375	715	2570	742	2774	769	2987	795	3210	820	3442	844	3684	867	3935	889	4196	911	4466	—	—	—	—	—	—
6000 [2831]	—	—	—	—	—	—	573	1787	604	1948	635	2119	664	2298	693	2488	721	2687	748	2895	775	3112	800	3339	825	3576	848	3822	871	4077	893	4342	914	4616	—	—	—	—	—	—
6200 [2926]	—	—	—	—	—	—	581	1889	612	2054	643	2229	672	2413	700	2606	728	2809	755	3021	781	3243	806	3474	830	3715	853	3965	876	4224	897	4493	918	4772	—	—	—	—	—	—
6400 [3020]	—	—	—	—	559	1836	590	1996	621	2165	651	2344	680	2532	708	2730	735	2937	761	3153	787	3379	812	3615	835	3859	858	4113	880	4377	902	4650	922	4933	—	—	—	—	—	—
6600 [3114]	—	—	—	—	568	1945	600	2109	630	2282	659	2465	688	2657	715	2859	742	3070	768	3291	793	3521	818	3760	841	4009	864	4267	885	4535	906	4812	926	5099	—	—	—	—	—	—
6800 [3209]	—	—	—	—	578	2059	609	2227	639	2404	668	2591	696	2788	723	2994	750	3209	775	3434	800	3668	824	3911	847	4164	869	4427	890	4699	911	4980	—	—	—	—	—	—	—	—
7000 [3303]	—	—	557	2015	588	2178	618	2350	648	2532	676	2723	704	2924	731	3134	757	3353	782	3582	807	3820	830	4068	853	4325	875	4592	895	4868	916	5153	—	—	—	—	—	—	—	—
7200 [3398]	—	—	567	2136	598	2303	628	2479	657	2665	685	2860	713	3065	739	3279	765	3503	790	3736	814	3978	837	4230	859	4491	880	4762	901	5042	921	5332	—	—	—	—	—	—	—	—

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

Drive Package	F						G					
Motor H.P. [W]	3 [2237.1]						5 [3728.5]					
Blower Sheave	BK105H						BK105H					
Motor Sheave	1VL-44						1VP-56					
Turns Open	**1**	2	3	4	5	6	1	2	3	**4**	5	6
RPM	**702**	674	647	616	582	556	917	893	865	**833**	802	769

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

[ ] Designates Metric Conversions

AIRFLOW PERFORMANCE—15 TON [52.7 kW] — 60 Hz — DOWNFLOW (CON'T.)

Airflow	AIRFLOW CORRECTION FACTORS			COMPONENT AIRFLOW RESISTANCE					
				Wet Coil	Downflow Economizer RA Damper Open	Horizontal Economizer RA Damper Open	Concentric Diffuser RXRN-AD80 or RXRN-AD81 & Transition RXMC-CJ07	MERV 8 Filter	MERV 13 Filter
CFM [L/s]	Total kBtu/h	Sensible kBtu/h	Power kW	Resistance — Inches of Water [kPa]					
4800 [2265]	0.97	0.87	0.98	0.03 [.01]	0.09 [.02]	0.00 [.00]	0.21 [.05]	0.07 [.02]	0.01 [.00]
5000 [2359]	0.97	0.90	0.98	0.04 [.01]	0.10 [.02]	0.01 [.00]	0.25 [.06]	0.07 [.02]	0.02 [.00]
5200 [2454]	0.98	0.92	0.99	0.05 [.01]	0.10 [.02]	0.01 [.00]	0.28 [.07]	0.08 [.02]	0.02 [.01]
5400 [2548]	0.98	0.94	0.99	0.06 [.01]	0.11 [.03]	0.02 [.00]	0.32 [.08]	0.08 [.02]	0.03 [.01]
5600 [2643]	0.99	0.97	0.99	0.06 [.01]	0.12 [.03]	0.02 [.00]	0.35 [.09]	0.08 [.02]	0.03 [.01]
5800 [2737]	1.00	0.99	1.00	0.07 [.02]	0.13 [.03]	0.03 [.01]	0.39 [.10]	0.09 [.02]	0.04 [.01]
6000 [2831]	1.00	1.02	1.00	0.08 [.02]	0.13 [.03]	0.03 [.01]	0.43 [.11]	0.09 [.02]	0.05 [.01]
6200 [2926]	1.01	1.04	1.00	0.09 [.02]	0.14 [.03]	0.04 [.01]	0.46 [.11]	0.10 [.02]	0.05 [.01]
6400 [3020]	1.02	1.06	1.01	0.10 [.02]	0.15 [.04]	0.04 [.01]	0.50 [.12]	0.10 [.02]	0.06 [.01]
6600 [3114]	1.02	1.09	1.01	0.10 [.02]	0.16 [.04]	0.05 [.01]	0.54 [.13]	0.10 [.03]	0.07 [.02]
6800 [3209]	1.03	1.11	1.01	0.11 [.03]	0.16 [.04]	0.05 [.01]	0.57 [.14]	0.11 [.03]	0.07 [.02]
7000 [3303]	1.03	1.14	1.02	0.12 [.03]	0.17 [.04]	0.06 [.01]	0.61 [.15]	0.11 [.03]	0.08 [.02]
7200 [3398]	1.04	1.16	1.02	0.13 [.03]	0.18 [.04]	0.06 [.01]	0.64 [.16]	0.12 [.03]	0.08 [.02]

NOTE: Multiply correction factor times gross performance data—resulting sensible capacity cannot exceed total capacity.

[ ] Designates Metric Conversions

AIRFLOW PERFORMANCE— 15 TON [52.7 kW] — 60 Hz — SIDEFLOW

Air Flow CFM [L/s]	Model RACHYB180 Voltage 208/230, 460 — 3 phase																																					
	External Static Pressure—Inches of Water [kPa]																																					
	0.1 [.02]		0.2 [.05]		0.3 [.07]		0.4 [.10]		0.5 [.12]		0.6 [.15]		0.7 [.17]		0.8 [.20]		0.9 [.22]		1.0 [.25]		1.1 [.27]		1.2 [.30]		1.3 [.32]		1.4 [.35]		1.5 [.37]		1.6 [.40]		1.7 [.42]		1.8 [.45]		1.9 [.47]		2.0 [.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
4800 [2265]	—	—	—	—	—	—	—	—	570	1312	597	1435	624	1564	651	1699	678	1839	704	1985	729	2137	755	2295	780	2458	804	2628	829	2803	853	2983	876	3170	899	3362	922	3560	—	—
5000 [2359]	—	—	—	—	—	—	—	—	578	1395	605	1520	632	1651	658	1787	684	1929	710	2077	735	2231	760	2390	785	2555	809	2726	833	2903	856	3085	879	3273	902	3467	925	3667	—	—
5200 [2454]	—	—	—	—	—	—	—	—	587	1487	614	1613	640	1746	666	1884	692	2028	717	2177	742	2333	766	2494	790	2660	814	2833	837	3011	861	3195	883	3385	906	3581	927	3782	—	—
5400 [2548]	—	—	—	—	—	—	570	1464	597	1586	623	1715	649	1849	674	1989	699	2134	724	2285	748	2442	772	2605	796	2774	819	2948	842	3128	865	3314	887	3505	909	3702	931	3905	—	—
5600 [2643]	—	—	—	—	—	—	580	1570	606	1694	632	1824	657	1960	682	2101	707	2249	731	2402	755	2560	779	2725	802	2895	825	3071	848	3252	870	3440	892	3633	913	3832	—	—	—	—
5800 [2737]	—	—	—	—	—	—	590	1684	616	1810	642	1942	667	2079	691	2222	715	2371	739	2526	763	2686	786	2852	809	3024	831	3202	854	3385	875	3574	897	3769	918	3970	—	—	—	—
6000 [2831]	—	—	—	—	576	1685	601	1806	627	1934	652	2067	676	2207	700	2351	724	2502	748	2658	771	2820	793	2988	816	3162	838	3341	860	3526	881	3717	902	3913	922	4116	—	—	—	—
6200 [2926]	—	—	—	—	587	1813	613	1937	637	2066	662	2201	686	2342	710	2488	733	2641	756	2799	779	2963	801	3132	823	3307	845	3488	866	3675	887	3867	907	4066	928	4270	—	—	—	—
6400 [3020]	—	—	574	1831	599	1950	624	2075	648	2206	673	2343	696	2485	720	2634	743	2788	765	2947	787	3113	809	3284	831	3461	852	3644	873	3832	893	4026	913	4226	933	4432	—	—	—	—
6600 [3114]	—	—	587	1974	612	2095	636	2222	660	2355	684	2493	707	2637	730	2787	752	2943	775	3104	796	3271	818	3444	839	3623	860	3807	880	3997	900	4193	920	4394	—	—	—	—	—	—
6800 [3209]	575	2008	600	2125	624	2248	648	2377	672	2511	695	2651	718	2797	740	2948	763	3106	784	3269	806	3438	827	3612	847	3792	868	3978	888	4170	907	4368	927	4571	—	—	—	—	—	—
7000 [3303]	589	2166	614	2284	638	2409	661	2539	684	2675	707	2817	729	2965	751	3118	773	3277	794	3442	815	3612	836	3788	856	3970	876	4158	896	4352	915	4551	—	—	—	—	—	—	—	—
7200 [3398]	604	2332	628	2452	651	2578	674	2710	697	2848	719	2991	741	3141	763	3296	784	3456	805	3623	825	3795	846	3973	865	4156	885	4346	904	4541	923	4742	—	—	—	—	—	—	—	—

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

Drive Package	F						G					
Motor H.P. [W]	3 [2237.1]						5 [3728.5]					
Blower Sheave	BK105H						BK105H					
Motor Sheave	1VL-44						1VP-56					
Turns Open	**1**	2	3	4	5	6	1	2	3	**4**	5	6
RPM	**722**	695	665	634	601	569	925	899	868	**836**	807	775

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

[ ] Designates Metric Conversions

AIRFLOW PERFORMANCE—15 TON [52.7 kW] — 60 Hz — SIDEFLOW (CON'T.)

Airflow	AIRFLOW CORRECTION FACTORS			COMPONENT AIRFLOW RESISTANCE					
				Wet Coil	Downflow Economizer RA Damper Open	Horizontal Economizer RA Damper Open	Concentric Diffuser RXRN-AD80 or RXRN-AD81 & Transition RXMC-CJ07	MERV 8 Filter	MERV 13 Filter
CFM [L/s]	Total kBtu/h	Sensible kBtu/h	Power kW	Resistance — Inches of Water [kPa]					
4800 [2265]	0.97	0.87	0.98	0.03 [.01]	0.09 [.02]	0.00 [.00]	0.21 [.05]	0.07 [.02]	0.01 [.00]
5000 [2359]	0.97	0.90	0.98	0.04 [.01]	0.10 [.02]	0.01 [.00]	0.25 [.06]	0.07 [.02]	0.02 [.00]
5200 [2454]	0.98	0.92	0.99	0.05 [.01]	0.10 [.02]	0.01 [.00]	0.28 [.07]	0.08 [.02]	0.02 [.01]
5400 [2548]	0.98	0.94	0.99	0.06 [.01]	0.11 [.03]	0.02 [.00]	0.32 [.08]	0.08 [.02]	0.03 [.01]
5600 [2643]	0.99	0.97	0.99	0.06 [.01]	0.12 [.03]	0.02 [.00]	0.35 [.09]	0.08 [.02]	0.03 [.01]
5800 [2737]	1.00	0.99	1.00	0.07 [.02]	0.13 [.03]	0.03 [.01]	0.39 [.10]	0.09 [.02]	0.04 [.01]
6000 [2831]	1.00	1.02	1.00	0.08 [.02]	0.13 [.03]	0.03 [.01]	0.43 [.11]	0.09 [.02]	0.05 [.01]
6200 [2926]	1.01	1.04	1.00	0.09 [.02]	0.14 [.03]	0.04 [.01]	0.46 [.11]	0.10 [.02]	0.05 [.01]
6400 [3020]	1.02	1.06	1.01	0.10 [.02]	0.15 [.04]	0.04 [.01]	0.50 [.12]	0.10 [.02]	0.06 [.01]
6600 [3114]	1.02	1.09	1.01	0.10 [.02]	0.16 [.04]	0.05 [.01]	0.54 [.13]	0.10 [.03]	0.07 [.02]
6800 [3209]	1.03	1.11	1.01	0.11 [.03]	0.16 [.04]	0.05 [.01]	0.57 [.14]	0.11 [.03]	0.07 [.02]
7000 [3303]	1.03	1.14	1.02	0.12 [.03]	0.17 [.04]	0.06 [.01]	0.61 [.15]	0.11 [.03]	0.08 [.02]
7200 [3398]	1.04	1.16	1.02	0.13 [.03]	0.18 [.04]	0.06 [.01]	0.64 [.16]	0.12 [.03]	0.08 [.02]

NOTE: Multiply correction factor times gross performance data—resulting sensible capacity cannot exceed total capacity.

[ ] Designates Metric Conversions

AIRFLOW PERFORMANCE— 17.5 TON [61.5 kW] — 60 Hz — DOWNFLOW

Air Flow CFM [L/s]	Model RACHYB210 Voltage 208/230, 460 — 3 phase																																					
	External Static Pressure—Inches of Water [kPa]																																					
	0.1 [.02]		0.2 [.05]		0.3 [.07]		0.4 [.10]		0.5 [.12]		0.6 [.15]		0.7 [.17]		0.8 [.20]		0.9 [.22]		1.0 [.25]		1.1 [.27]		1.2 [.30]		1.3 [.32]		1.4 [.35]		1.5 [.37]		1.6 [.40]		1.7 [.42]		1.8 [.45]		1.9 [.47]		2.0 [.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
5600 [2643]	—	—	—	—	—	—	—	—	580	1642	607	1790	634	1942	660	2098	686	2259	711	2423	736	2591	760	2764	783	2941	806	3122	828	3307	850	3496	871	3689	891	3886	911	4088	930	4293
5800 [2737]	—	—	—	—	—	—	—	—	588	1736	615	1887	642	2043	668	2202	693	2365	718	2533	742	2704	766	2880	789	3060	811	3244	833	3432	854	3624	875	3820	895	4021	914	4225	—	—
6000 [2831]	—	—	—	—	—	—	—	—	596	1838	623	1992	649	2150	675	2312	700	2479	724	2649	748	2824	772	3003	794	3186	817	3373	838	3564	859	3759	879	3958	899	4162	918	4370	—	—
6200 [2926]	—	—	—	—	—	—	—	—	605	1945	631	2103	657	2264	682	2429	707	2599	731	2773	755	2950	778	3132	800	3318	822	3508	843	3703	864	3901	884	4103	904	4310	923	4521	—	—
6400 [3020]	—	—	—	—	—	—	586	1904	613	2060	640	2220	665	2385	690	2553	715	2726	739	2903	762	3084	785	3269	807	3458	828	3651	849	3848	869	4050	889	4255	908	4465	927	4679	—	—
6600 [3114]	—	—	—	—	—	—	596	2022	622	2182	648	2345	674	2513	698	2684	722	2860	746	3040	769	3224	791	3412	813	3604	834	3800	855	4001	875	4205	895	4414	913	4627	—	—	—	—
6800 [3209]	—	—	—	—	578	1990	605	2148	631	2310	657	2477	682	2647	707	2822	730	3001	754	3184	776	3371	798	3562	820	3757	841	3957	861	4160	881	4368	900	4580	919	4796	—	—	—	—
7000 [3303]	—	—	—	—	589	2119	615	2280	641	2445	666	2615	691	2789	715	2967	739	3148	762	3334	784	3525	806	3719	827	3917	847	4120	868	4326	887	4537	906	4752	924	4971	—	—	—	—
7200 [3398]	—	—	—	—	599	2255	625	2419	651	2588	676	2760	700	2937	724	3118	747	3303	770	3492	792	3685	813	3883	834	4084	854	4290	874	4499	893	4713	912	4931	930	5153	—	—	—	—
7400 [3492]	—	—	583	2234	609	2397	635	2565	660	2737	685	2912	709	3092	733	3276	756	3464	778	3657	800	3853	821	4053	842	4258	862	4467	881	4679	900	4896	918	5117	—	—	—	—	—	—
7600 [3586]	—	—	594	2380	620	2547	646	2718	671	2892	695	3071	719	3254	742	3441	765	3632	787	3828	808	4027	829	4231	849	4438	869	4650	888	4866	906	5086	924	5310	—	—	—	—	—	—
7800 [3681]	579	2368	605	2534	631	2703	656	2877	681	3055	705	3237	729	3423	751	3613	774	3807	795	4006	817	4208	837	4415	857	4626	876	4841	895	5060	913	5283	931	5510	—	—	—	—	—	—
8000 [3775]	591	2526	617	2694	642	2867	667	3044	692	3224	715	3410	739	3599	761	3792	783	3989	805	4191	825	4396	846	4606	865	4820	884	5038	903	5260	921	5486	—	—	—	—	—	—	—	—
8200 [3869]	603	2689	629	2861	654	3037	678	3217	702	3401	726	3589	749	3781	771	3978	793	4178	814	4383	834	4591	854	4804	874	5021	892	5242	911	5467	928	5697	—	—	—	—	—	—	—	—
8400 [3964]	615	2860	641	3035	665	3214	690	3397	714	3584	737	3775	759	3971	781	4170	803	4374	823	4581	844	4793	863	5009	882	5229	901	5453	919	5682	—	—	—	—	—	—	—	—	—	—

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

Drive Package	F						G					
Motor H.P. [W]	3 [2237.1]						5 [3728.5]					
Blower Sheave	BK100H						BK105H					
Motor Sheave	1VL-44						1VP-56					
Turns Open	**1**	2	3	4	5	6	1	2	3	**4**	5	6
RPM	**742**	711	679	649	617	585	922	897	866	**836**	805	775

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

[ ] Designates Metric Conversions

AIRFLOW PERFORMANCE—17.5 TON [61.5 kW] — 60 Hz — DOWNFLOW (CON'T.)

Airflow	AIRFLOW CORRECTION FACTORS			COMPONENT AIRFLOW RESISTANCE					
				Wet Coil	Downflow Economizer RA Damper Open	Horizontal Economizer RA Damper Open	Concentric Diffuser RXRN-AD80 or RXRN-AD81 & Transition RXMC-CJ07	MERV 8 Filter	MERV 13 Filter
CFM [L/s]	Total kBtu/h	Sensible kBtu/h	Power kW	Resistance — Inches of Water [kPa]					
5600 [2643]	0.97	0.87	0.98	0.06 [.01]	0.12 [.03]	0.02 [.00]	0.35 [.09]	0.08 [.02]	0.03 [.01]
5800 [2737]	0.97	0.90	0.98	0.07 [.02]	0.13 [.03]	0.03 [.01]	0.39 [.10]	0.09 [.02]	0.04 [.01]
6000 [2831]	0.98	0.92	0.99	0.08 [.02]	0.13 [.03]	0.03 [.01]	0.43 [.11]	0.09 [.02]	0.05 [.01]
6200 [2926]	0.98	0.94	0.99	0.09 [.02]	0.14 [.03]	0.04 [.01]	0.46 [.11]	0.10 [.02]	0.05 [.01]
6400 [3020]	0.99	0.97	0.99	0.10 [.02]	0.15 [.04]	0.04 [.01]	0.50 [.12]	0.10 [.02]	0.06 [.01]
6600 [3114]	1.00	0.99	1.00	0.10 [.02]	0.16 [.04]	0.05 [.01]	0.54 [.13]	0.10 [.03]	0.07 [.02]
6800 [3209]	1.00	1.02	1.00	0.11 [.03]	0.16 [.04]	0.05 [.01]	0.57 [.14]	0.11 [.03]	0.07 [.02]
7000 [3303]	1.01	1.04	1.00	0.12 [.03]	0.17 [.04]	0.06 [.01]	0.61 [.15]	0.11 [.03]	0.08 [.02]
7200 [3398]	1.02	1.06	1.01	0.13 [.03]	0.18 [.04]	0.06 [.01]	0.64 [.16]	0.12 [.03]	0.08 [.02]
7400 [3492]	1.02	1.09	1.01	0.14 [.03]	0.19 [.05]	0.07 [.02]	0.68 [.17]	0.12 [.03]	0.09 [.02]
7600 [3586]	1.03	1.11	1.01	0.14 [.03]	0.20 [.05]	0.07 [.02]	0.72 [.18]	0.12 [.03]	0.10 [.02]
7800 [3681]	1.03	1.14	1.02	0.15 [.04]	0.21 [.05]	0.08 [.02]	0.75 [.19]	0.13 [.03]	0.10 [.03]
8000 [3775]	1.04	1.16	1.02	0.16 [.04]	0.22 [.05]	0.09 [.02]	0.79 [.20]	0.13 [.03]	0.11 [.03]
8200 [3869]	1.03	1.14	1.02	0.17 [.04]	0.23 [.06]	0.09 [.02]	0.83 [.21]	0.14 [.03]	0.11 [.03]
8400 [3964]	1.04	1.16	1.02	0.18 [.04]	0.24 [.06]	0.10 [.02]	0.86 [.21]	0.14 [.03]	0.12 [.03]

NOTES: Multiply correction factor times gross performance data—resulting sensible capacity cannot exceed total capacity.

[ ] Designates Metric Conversions

AIRFLOW PERFORMANCE— 17.5 TON [61.5 kW] — 60 Hz — SIDEFLOW

Air Flow CFM [L/s]	Model RACHYB210 Voltage 208/230, 460 — 3 phase																																					
	External Static Pressure—Inches of Water [kPa]																																					
	0.1 [.02]		0.2 [.05]		0.3 [.07]		0.4 [.10]		0.5 [.12]		0.6 [.15]		0.7 [.17]		0.8 [.20]		0.9 [.22]		1.0 [.25]		1.1 [.27]		1.2 [.30]		1.3 [.32]		1.4 [.35]		1.5 [.37]		1.6 [.40]		1.7 [.42]		1.8 [.45]		1.9 [.47]		2.0 [.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
5600 [2643]	—	—	—	—	—	—	—	—	—	—	593	1669	619	1805	644	1949	670	2099	695	2258	720	2423	745	2596	769	2776	793	2964	817	3159	840	3361	863	3571	886	3788	909	4012	931	4244
5800 [2737]	—	—	—	—	—	—	—	—	—	—	600	1761	625	1899	651	2043	676	2196	700	2355	725	2522	749	2696	773	2877	797	3066	820	3262	843	3466	865	3677	888	3895	910	4121	—	—
6000 [2831]	—	—	—	—	—	—	—	—	582	1730	607	1861	632	2000	657	2146	682	2299	706	2460	730	2628	754	2803	777	2986	800	3176	823	3373	846	3578	868	3790	890	4010	912	4237	—	—
6200 [2926]	—	—	—	—	—	—	—	—	590	1836	615	1968	640	2108	664	2255	688	2410	712	2572	736	2741	759	2918	782	3102	805	3293	827	3492	849	3698	871	3911	892	4132	914	4360	—	—
6400 [3020]	—	—	—	—	—	—	—	—	598	1949	623	2083	647	2224	671	2372	695	2528	718	2691	742	2862	764	3040	787	3225	809	3418	831	3617	853	3825	874	4039	895	4261	916	4491	—	—
6600 [3114]	—	—	—	—	—	—	583	1942	607	2070	631	2205	655	2347	679	2497	702	2654	725	2818	748	2990	770	3169	792	3356	814	3549	835	3751	857	3959	878	4175	898	4398	919	4629	—	—
6800 [3209]	—	—	—	—	—	—	592	2069	616	2198	640	2334	664	2477	687	2628	709	2787	732	2952	754	3125	776	3306	798	3494	819	3689	840	3891	861	4101	881	4318	902	4542	921	4774	—	—
7000 [3303]	—	—	—	—	—	—	602	2203	626	2333	649	2470	672	2615	695	2768	717	2927	739	3094	761	3268	782	3450	804	3639	825	3835	845	4039	866	4250	886	4468	905	4694	925	4927	—	—
7200 [3398]	—	—	—	—	589	2220	613	2344	636	2476	658	2614	681	2761	703	2914	725	3075	747	3243	768	3419	789	3601	810	3792	830	3989	851	4194	870	4406	890	4626	909	4853	928	5087	—	—
7400 [3492]	—	—	—	—	600	2368	623	2493	646	2626	668	2766	690	2913	712	3068	733	3230	755	3399	776	3576	796	3760	816	3952	836	4150	856	4357	876	4570	895	4791	914	5019	—	—	—	—
7600 [3586]	—	—	589	2404	611	2523	634	2649	656	2783	678	2925	700	3073	721	3229	742	3392	763	3563	783	3741	803	3926	823	4119	843	4319	862	4527	881	4741	900	4963	918	5193	—	—	—	—
7800 [3681]	—	—	601	2565	623	2685	645	2813	667	2948	688	3091	710	3240	730	3398	751	3562	771	3734	791	3913	811	4100	830	4294	850	4495	868	4704	887	4920	905	5143	923	5374	—	—	—	—
8000 [3775]	591	2619	613	2733	635	2855	657	2984	678	3120	699	3264	720	3415	740	3574	760	3739	780	3913	800	4093	819	4281	838	4476	857	4679	875	4889	893	5106	911	5330	928	5562	—	—	—	—
8200 [3869]	604	2793	626	2909	647	3032	668	3162	689	3300	710	3445	730	3597	750	3757	770	3924	789	4098	808	4280	827	4469	846	4666	864	4870	882	5081	900	5299	917	5525	—	—	—	—	—	—
8400 [3964]	618	2975	639	3092	660	3216	681	3348	701	3487	721	3633	741	3787	761	3948	780	4116	799	4292	817	4475	836	4665	854	4863	872	5068	889	5280	906	5500	923	5727	—	—	—	—	—	—

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

Drive Package	F						G					
Motor H.P. [W]	3 [2237.1]						5 [3728.5]					
Blower Sheave	BK100H						BK105H					
Motor Sheave	1VL-44						1VP-56					
Turns Open	**1**	2	3	4	5	6	1	2	3	**4**	5	6
RPM	**741**	712	679	648	616	585	923	893	866	**836**	806	775

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

[ ] Designates Metric Conversions

AIRFLOW PERFORMANCE— 17.5 TON [61.5 kW] — 60 Hz — SIDEFLOW (CON'T.)

Airflow	AIRFLOW CORRECTION FACTORS*			COMPONENT AIRFLOW RESISTANCE						
				Wet Coil	Downflow	Downflow Economizer RA Damper Open	Horizontal Economizer RA Damper Open	Concentric Diffuser RXRN-AD80 or RXRN-AD81 & Transition RXMC-CJ07	MERV 8 Filter	MERV 13 Filter
CFM [L/s]	Total kBtu/h	Sensible kBtu/h	Power kW	Resistance — Inches of Water [kPa]						
5600 [2643]	0.97	0.87	0.98	0.06 [.01]	0.05 [.01]	0.12 [.03]	0.02 [.00]	0.35 [.09]	0.08 [.02]	0.03 [.01]
5800 [2737]	0.97	0.90	0.98	0.07 [.02]	0.05 [.01]	0.13 [.03]	0.03 [.01]	0.39 [.10]	0.09 [.02]	0.04 [.01]
6000 [2831]	0.98	0.92	0.99	0.08 [.02]	0.05 [.01]	0.13 [.03]	0.03 [.01]	0.43 [.11]	0.09 [.02]	0.05 [.01]
6200 [2926]	0.98	0.94	0.99	0.09 [.02]	0.06 [.01]	0.14 [.03]	0.04 [.01]	0.46 [.11]	0.10 [.02]	0.05 [.01]
6400 [3020]	0.99	0.97	0.99	0.10 [.02]	0.06 [.01]	0.15 [.04]	0.04 [.01]	0.50 [.12]	0.10 [.02]	0.06 [.01]
6600 [3114]	1.00	0.99	1.00	0.10 [.02]	0.06 [.01]	0.16 [.04]	0.05 [.01]	0.54 [.13]	0.10 [.03]	0.07 [.02]
6800 [3209]	1.00	1.02	1.00	0.11 [.03]	0.07 [.02]	0.16 [.04]	0.05 [.01]	0.57 [.14]	0.11 [.03]	0.07 [.02]
7000 [3303]	1.01	1.04	1.00	0.12 [.03]	0.08 [.02]	0.17 [.04]	0.06 [.01]	0.61 [.15]	0.11 [.03]	0.08 [.02]
7200 [3398]	1.02	1.06	1.01	0.13 [.03]	0.08 [.02]	0.18 [.04]	0.06 [.02]	0.64 [.16]	0.12 [.03]	0.08 [.02]
7400 [3492]	1.02	1.09	1.01	0.14 [.03]	0.09 [.02]	0.19 [.05]	0.07 [.02]	0.68 [.17]	0.12 [.03]	0.09 [.02]
7600 [3586]	1.03	1.11	1.01	0.14 [.03]	0.10 [.02]	0.20 [.05]	0.07 [.02]	0.72 [.18]	0.12 [.03]	0.10 [.02]
7800 [3681]	1.03	1.14	1.02	0.15 [.04]	0.11 [.03]	0.21 [.05]	0.08 [.02]	0.75 [.19]	0.13 [.03]	0.10 [.03]
8000 [3775]	1.04	1.16	1.02	0.16 [.04]	0.12 [.03]	0.22 [.05]	0.09 [.02]	0.79 [.20]	0.13 [.03]	0.11 [.03]
8200 [3869]	1.03	1.14	1.02	0.17 [.04]	0.13 [.03]	0.23 [.06]	0.09 [.02]	0.83 [.21]	0.14 [.03]	0.11 [.03]
8400 [3964]	1.04	1.16	1.02	0.18 [.04]	0.14 [.03]	0.24 [.06]	0.10 [.02]	0.86 [.21]	0.14 [.03]	0.12 [.03]

NOTES: Multiply correction factor times gross performance data—resulting sensible capacity cannot exceed total capacity.

[ ] Designates Metric Conversions

AIRFLOW PERFORMANCE—20 TON [70.3 kW] — 60 Hz — DOWNFLOW

Air Flow CFM [L/s]	Model RACHYB240 Voltage 208/230, 460 — 3 phase																																			
	External Static Pressure—Inches of Water [kPa]																																			
	0.1 [.02]		0.2 [.05]		0.3 [.07]		0.4 [.10]		0.5 [.12]		0.6 [.15]		0.7 [.17]		0.8 [.20]		0.9 [.22]		1.0 [.25]		1.1 [.27]		1.2 [.30]		1.3 [.32]		1.4 [.35]		1.5 [.37]		1.6 [.40]		1.7 [.42]		1.8 [.45]		1.9 [.47]		2.0 [.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
6400 [3020]	—	—	—	—	—	—	—	—	654	2181	682	2358	710	2540	737	2727	763	2920	788	3119	813	3323	838	3532	861	3747	884	3968	907	4194	928	4426	949	4663	970	4906	989	5154	—	—
6600 [3114]	—	—	—	—	—	—	—	—	664	2297	692	2478	719	2664	745	2856	771	3053	797	3256	821	3464	845	3678	869	3898	891	4123	913	4353	935	4589	955	4831	975	5078	995	5331	—	—
6800 [3209]	—	—	—	—	—	—	—	—	674	2421	701	2606	728	2797	754	2993	780	3194	805	3401	829	3614	853	3832	876	4056	898	4285	920	4520	941	4761	961	5006	981	5258	—	—	—	—
7000 [3303]	—	—	—	—	—	—	656	2369	684	2553	711	2742	737	2937	763	3137	789	3343	813	3555	837	3772	861	3994	883	4222	905	4456	927	4695	947	4940	967	5190	987	5446	—	—	—	—
7200 [3398]	—	—	—	—	—	—	666	2504	694	2692	721	2886	747	3085	773	3290	797	3500	822	3716	845	3937	868	4164	891	4397	912	4634	933	4878	954	5127	974	5381	993	5641	—	—	—	—
7400 [3492]	—	—	—	—	—	—	677	2648	704	2840	731	3038	757	3241	782	3450	806	3665	830	3885	854	4111	876	4342	898	4579	920	4821	940	5069	960	5322	980	5581	—	—	—	—	—	—
7600 [3586]	—	—	—	—	660	2608	687	2799	714	2996	741	3198	766	3406	791	3619	815	3838	839	4062	862	4292	884	4528	906	4769	927	5015	948	5267	967	5525	986	5788	—	—	—	—	—	—
7800 [3681]	—	—	—	—	671	2762	698	2958	725	3159	751	3366	776	3578	801	3795	825	4019	848	4247	871	4482	893	4721	914	4967	935	5218	955	5474	974	5736	993	6003	—	—	—	—	—	—
8000 [3775]	—	—	655	2731	682	2925	709	3125	735	3330	761	3541	786	3758	810	3980	834	4207	857	4440	879	4679	901	4923	922	5173	942	5428	962	5688	981	5955	—	—	—	—	—	—	—	—
8200 [3869]	—	—	666	2897	694	3096	720	3300	746	3510	771	3725	796	3946	820	4172	843	4404	866	4641	888	4884	909	5133	930	5386	950	5646	969	5911	988	6182	—	—	—	—	—	—	—	—
8400 [3964]	650	2874	678	3072	705	3274	731	3483	757	3697	782	3917	806	4142	830	4372	853	4608	875	4850	897	5097	918	5350	938	5608	958	5872	977	6141	—	—	—	—	—	—	—	—	—	—
8600 [4058]	663	3052	690	3254	717	3461	743	3674	768	3892	792	4116	816	4345	840	4580	862	4821	884	5067	906	5318	926	5575	947	5838	966	6106	985	6380	—	—	—	—	—	—	—	—	—	—
8800 [4153]	675	3238	702	3444	728	3656	754	3873	779	4095	803	4323	827	4557	850	4796	872	5041	894	5292	915	5547	935	5809	955	6076	974	6348	992	6626	—	—	—	—	—	—	—	—	—	—
9000 [4247]	688	3432	714	3642	740	3858	765	4079	790	4306	814	4539	837	4777	860	5020	882	5270	903	5524	924	5784	944	6050	963	6321	982	6598	—	—	—	—	—	—	—	—	—	—	—	—
9200 [4341]	700	3633	726	3848	752	4068	777	4294	801	4525	825	4762	848	5005	870	5252	892	5506	913	5765	933	6029	953	6299	972	6575	991	6856	—	—	—	—	—	—	—	—	—	—	—	—
9400 [4436]	713	3843	739	4062	764	4287	789	4517	813	4752	836	4993	859	5240	881	5492	902	5750	923	6013	943	6282	962	6556	981	6836	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9600 [4530]	726	4061	751	4284	776	4513	801	4747	824	4987	847	5233	870	5484	891	5740	912	6002	933	6270	952	6543	971	6821	990	7106	—	—	—	—	—	—	—	—	—	—	—	—	—	—

NOTE: F-Drive left of first bold line, G-Drive in between bold lines, H-Drive right of second bold line.

Drive Package	F						G						H					
Motor H.P. [W]	5 [3728.5]						7.5 [5592.7]						7.5 [5592.7]					
Blower Sheave	BK130H						BK130H						BK120H					
Motor Sheave	1VP56						1VP71						1VP71					
Turns Open	1	2	**3**	4	5	6	1	2	3	**4**	5	6	1	2	3	**4**	5	6
RPM	751	730	**705**	679	654	655	941	914	886	**846**	826	806	1016	988	960	**918**	896	875

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

[ ] Designates Metric Conversions

AIRFLOW PERFORMANCE—20 TON [70.3 kW] — 60 Hz — DOWNFLOW (CON'T.)

Airflow	AIRFLOW CORRECTION FACTORS*			COMPONENT AIRFLOW RESISTANCE					
				Wet Coil	Downflow Economizer RA Damper Open	Horizontal Economizer RA Damper Open	Concentric Diffuser RXRN-AD86 & Transition RXMC-CK08	MERV 8 Filter	MERV 13 Filter
CFM [L/s]	Total kBtu/h	Sensible kBtu/h	Power kW	Resistance — Inches of Water [kPa]					
8000 [3775]	0.97	0.89	0.99	0.07 [.02]	0.22 [.05]	0.09 [.02]	0.17 [.04]	0.10 [.02]	0.06 [.01]
8400 [3964]	0.98	0.92	0.99	0.09 [.02]	0.24 [.06]	0.10 [.02]	0.23 [.06]	0.10 [.03]	0.07 [.02]
8800 [4153]	0.99	0.95	1.00	0.10 [.02]	0.26 [.06]	0.11 [.03]	0.30 [.07]	0.11 [.03]	0.07 [.02]
9200 [4341]	0.99	0.98	1.00	0.12 [.03]	0.28 [.07]	0.12 [.03]	0.36 [.09]	0.11 [.03]	0.08 [.02]
9600 [4530]	1.00	1.01	1.00	0.13 [.03]	0.30 [.07]	0.13 [.03]	0.43 [.11]	0.12 [.03]	0.08 [.02]
10000 [4719]	1.01	1.04	1.01	0.15 [.04]	0.32 [.08]	0.14 [.03]	0.50 [.14]	0.12 [.03]	0.09 [.02]
10400 [4908]	1.02	1.08	1.01	0.16 [.04]	0.34 [.08]	0.15 [.04]	0.56 [.16]	0.12 [.03]	0.10 [.02]
10800 [5096]	1.03	1.11	1.01	0.18 [.04]	0.37 [.09]	0.16 [.04]	0.63 [.17]	0.13 [.03]	0.10 [.03]
11200 [5285]	1.03	1.14	1.02	0.19 [.05]	0.39 [.10]	0.17 [.04]	0.69 [.19]	0.13 [.03]	0.11 [.03]
11600 [5474]	1.04	1.17	1.02	0.21 [.05]	0.41 [.10]	0.18 [.04]	0.76 [.25]	0.14 [.03]	0.11 [.03]
12000 [5663]	1.05	1.20	1.02	0.22 [.05]	0.44 [.11]	0.19 [.05]	0.82 [.20]	0.14 [.03]	0.12 [.03]
12400 [5851]	1.06	1.23	1.03	0.24 [.06]	0.46 [.11]	0.20 [.05]	0.89 [.22]	0.14 [.04]	0.13 [.03]
12800 [6040]	1.06	1.26	1.03	0.25 [.06]	0.49 [.12]	0.21 [.05]	0.96 [.24]	0.15 [.04]	0.13 [.03]
13200 [6229]	1.07	1.29	1.04	0.27 [.07]	0.52 [.13]	0.22 [.05]	1.02 [.25]	0.15 [.04]	0.14 [.03]
13600 [6418]	1.08	1.32	1.04	0.28 [.07]	0.54 [.13]	0.23 [.06]	1.09 [.27]	0.16 [.04]	0.15 [.04]

NOTES: Multiply correction factor times gross performance data—resulting sensible capacity cannot exceed total capacity.

[ ] Designates Metric Conversions

AIRFLOW PERFORMANCE—20 TON [70.3 kW] — 60 Hz — SIDEFLOW

Air Flow CFM [L/s]	Model RACHYB240 Voltage 208/230, 460 — 3 phase																																			
	External Static Pressure—Inches of Water [kPa]																																			
	0.1 [.02]		0.2 [.05]		0.3 [.07]		0.4 [.10]		0.5 [.12]		0.6 [.15]		0.7 [.17]		0.8 [.20]		0.9 [.22]		1.0 [.25]		1.1 [.27]		1.2 [.30]		1.3 [.32]		1.4 [.35]		1.5 [.37]		1.6 [.40]		1.7 [.42]		1.8 [.45]		1.9 [.47]		2.0 [.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
6400 [3020]	—	—	—	—	—	—	—	—	—	—	625	1907	648	2055	671	2207	694	2362	716	2520	738	2681	760	2845	782	3012	804	3182	825	3355	847	3532	868	3711	889	3894	910	4080	931	4268
6600 [3114]	—	—	—	—	—	—	—	—	—	—	632	2014	655	2164	677	2316	700	2472	722	2631	744	2793	765	2959	787	3127	808	3298	830	3473	851	3651	871	3831	892	4015	913	4202	933	4392
6800 [3209]	—	—	—	—	—	—	—	—	—	—	640	2128	662	2279	684	2433	706	2590	728	2750	749	2914	771	3080	792	3249	813	3422	834	3598	855	3776	875	3958	895	4143	916	4331	936	4522
7000 [3303]	—	—	—	—	—	—	—	—	625	2100	647	2249	669	2401	691	2557	713	2715	734	2876	755	3041	776	3208	797	3379	818	3553	838	3730	859	3909	879	4093	899	4279	919	4468	939	4660
7200 [3398]	—	—	—	—	—	—	—	—	633	2228	655	2378	677	2531	698	2687	719	2847	741	3009	761	3175	782	3344	803	3516	823	3691	843	3869	863	4050	883	4234	903	4421	922	4612	942	4805
7400 [3492]	—	—	—	—	—	—	—	—	642	2362	663	2514	685	2668	706	2825	727	2986	747	3150	768	3317	788	3487	809	3660	829	3836	848	4015	868	4197	888	4382	907	4571	926	4762	945	4957
7600 [3586]	—	—	—	—	—	—	629	2354	651	2504	672	2656	693	2812	713	2971	734	3132	754	3297	775	3465	795	3636	815	3811	834	3988	854	4168	873	4352	892	4538	911	4728	930	4921	949	5116
7800 [3681]	—	—	—	—	—	—	639	2502	660	2653	680	2806	701	2963	721	3123	742	3286	762	3452	782	3621	801	3793	821	3969	840	4147	859	4329	878	4513	897	4701	916	4892	934	5086	953	5283
8000 [3775]	—	—	—	—	627	2508	648	2657	669	2809	689	2964	710	3122	730	3283	750	3447	769	3614	789	3784	808	3958	827	4134	846	4314	865	4496	884	4682	903	4871	921	5063	939	5258	957	5456
8200 [3869]	—	—	—	—	638	2669	658	2819	678	2972	698	3128	718	3287	738	3449	758	3615	777	3783	796	3954	815	4129	834	4307	853	4488	871	4671	890	4858	908	5048	926	5241	944	5438	961	5637
8400 [3964]	—	—	628	2689	648	2837	668	2988	688	3142	708	3300	727	3460	747	3623	766	3790	785	3959	804	4132	823	4308	841	4486	860	4668	878	4853	896	5042	914	5233	931	5427	949	5624	966	5825
8600 [4058]	—	—	639	2863	659	3012	679	3165	698	3320	718	3478	737	3640	756	3804	775	3972	794	4143	812	4316	831	4493	849	4673	867	4856	885	5043	902	5232	920	5424	937	5620	954	5818	971	6020
8800 [4153]	630	2897	650	3045	670	3195	689	3348	708	3505	728	3664	746	3827	765	3992	784	4161	802	4333	820	4508	838	4686	856	4867	874	5052	891	5239	909	5429	926	5623	943	5820	960	6019	976	6222
9000 [4247]	642	3085	662	3233	681	3384	700	3539	719	3696	738	3857	756	4021	775	4188	793	4358	811	4531	829	4707	847	4886	864	5069	882	5254	899	5443	916	5634	932	5829	949	6027	966	6228	982	6432
9200 [4341]	654	3279	673	3428	692	3581	711	3737	730	3895	748	4057	767	4222	785	4390	802	4562	820	4736	838	4913	855	5093	872	5277	889	5464	906	5653	923	5846	939	6042	956	6241	972	6443	988	6648
9400 [4436]	667	3480	686	3631	704	3785	723	3942	741	4102	759	4265	777	4431	795	4600	812	4772	830	4948	847	5126	864	5308	881	5493	897	5680	914	5871	930	6065	946	6262	962	6462	978	6666	994	6872
9600 [4530]	679	3689	698	3841	716	3996	734	4154	752	4315	770	4479	788	4647	805	4817	822	4990	839	5167	856	5347	873	5529	889	5715	906	5904	922	6096	938	6291	954	6490	969	6691	985	6895	1000	7103

NOTE: F-Drive left of first bold line, G-Drive in between bold lines, H-Drive right of second bold line.

Drive Package	F						G						H					
Motor H.P. [W]	5 [3728.5]						7.5 [5592.7]						7.5 [5592.7]					
Blower Sheave	BK130H						BK130H						BK120H					
Motor Sheave	1VP56						1VP71						1VP71					
Turns Open	1	2	**3**	4	5	6	1	2	3	**4**	5	6	1	2	3	**4**	5	6
RPM	752	728	**702**	677	651	625	939	912	885	**846**	826	806	I	988	950	**910**	889	869

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

[ ] Designates Metric Conversions

AIRFLOW PERFORMANCE—20 TON [70.3 kW] — 60 Hz — SIDEFLOW (CON'T.)

Airflow	AIRFLOW CORRECTION FACTORS*			COMPONENT AIRFLOW RESISTANCE					
				Wet Coil	Downflow Economizer RA Damper Open	Horizontal Economizer RA Damper Open	Concentric Diffuser RXRN-AD86 & Transition RXMC-CK08	MERV 8 Filter	MERV 13 Filter
CFM [L/s]	Total kBtu/h	Sensible kBtu/h	Power kW	Resistance — Inches of Water [kPa]					
6400 [3020]	0.94	0.77	0.97	0.01 [.00]	0.15 [.04]	0.04 [.01]	-0.10 [.02]	0.10 [.02]	0.06 [.01]
6600 [3114]	0.94	0.79	0.97	0.02 [.00]	0.16 [.04]	0.05 [.01]	-0.06 [.01]	0.10 [.03]	0.07 [.02]
6800 [3209]	0.95	0.80	0.98	0.03 [.01]	0.16 [.04]	0.05 [.01]	-0.03 [.01]	0.11 [.03]	0.07 [.02]
7000 [3303]	0.95	0.82	0.98	0.03 [.01]	0.17 [.04]	0.06 [.01]	0.00 [.00]	0.11 [.03]	0.08 [.02]
7200 [3398]	0.96	0.83	0.98	0.04 [.01]	0.18 [.04]	0.06 [.01]	0.04 [.01]	0.12 [.03]	0.08 [.02]
7400 [3492]	0.96	0.85	0.98	0.05 [.01]	0.19 [.05]	0.07 [.02]	0.07 [.02]	0.12 [.03]	0.09 [.02]
7600 [3586]	0.96	0.86	0.98	0.06 [.01]	0.20 [.05]	0.07 [.02]	0.10 [.02]	0.12 [.03]	0.10 [.02]
7800 [3681]	0.97	0.88	0.99	0.06 [.01]	0.21 [.05]	0.08 [.02]	0.13 [.03]	0.13 [.03]	0.10 [.03]
8000 [3775]	0.97	0.89	0.99	0.07 [.02]	0.22 [.05]	0.09 [.02]	0.17 [.04]	0.13 [.03]	0.11 [.03]
8200 [3869]	0.98	0.91	0.99	0.08 [.02]	0.23 [.06]	0.09 [.02]	0.20 [.05]	0.14 [.03]	0.11 [.03]
8400 [3964]	0.98	0.92	0.99	0.09 [.02]	0.24 [.06]	0.10 [.02]	0.23 [.06]	0.14 [.03]	0.12 [.03]
8600 [4058]	0.98	0.94	0.99	0.09 [.02]	0.25 [.06]	0.10 [.02]	0.27 [.07]	0.14 [.04]	0.13 [.03]
8800 [4153]	0.99	0.95	1.00	0.10 [.02]	0.26 [.06]	0.11 [.03]	0.30 [.07]	0.15 [.04]	0.13 [.03]
9000 [4247]	0.99	0.97	1.00	0.11 [.03]	0.27 [.07]	0.11 [.03]	0.33 [.08]	0.15 [.04]	0.14 [.03]
9200 [4341]	0.99	0.98	1.00	0.12 [.03]	0.28 [.07]	0.12 [.03]	0.36 [.09]	0.16 [.04]	0.15 [.04]
9400 [4436]	1.00	1.00	1.00	0.12 [.03]	0.29 [.07]	0.12 [.03]	0.40 [.10]	0.16 [.04]	0.15 [.04]
9600 [4530]	1.00	1.01	1.00	0.13 [.03]	0.30 [.07]	0.13 [.03]	0.43 [.11]	0.16 [.04]	0.16 [.04]

NOTES: Multiply correction factor times gross performance data—resulting sensible capacity cannot exceed total capacity.

[ ] Designates Metric Conversions

AIRFLOW PERFORMANCE—25 TON [87.9 kW] — 60 Hz — DOWNFLOW

Air Flow CFM [L/s]	Model RACHYB300 Voltage 208/230, 460 — 3 phase																																					
	External Static Pressure—Inches of Water [kPa]																																					
	0.1 [.02]		0.2 [.05]		0.3 [.07]		0.4 [.10]		0.5 [.12]		0.6 [.15]		0.7 [.17]		0.8 [.20]		0.9 [.22]		1.0 [.25]		1.1 [.27]		1.2 [.30]		1.3 [.32]		1.4 [.35]		1.5 [.37]		1.6 [.40]		1.7 [.42]		1.8 [.45]		1.9 [.47]		2.0 [.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
8000 [3775]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	818	4060	839	4264	859	4474	880	4689	900	4911	920	5138	940	5371	960	5609	980	5853	999	6103	1018	6359	1037	6621	1056	6888
8200 [3869]	—	—	—	—	—	—	—	—	—	—	—	—	806	4022	827	4228	847	4438	868	4655	888	4877	908	5105	928	5339	948	5578	968	5823	987	6074	1006	6331	1025	6593	1044	6861	1063	7135
8400 [3964]	—	—	—	—	—	—	—	—	—	—	—	—	815	4195	835	4407	856	4624	877	4847	897	5076	917	5310	937	5551	956	5797	976	6048	995	6306	1014	6569	1033	6838	1051	7112	1070	7393
8600 [4058]	—	—	—	—	—	—	—	—	—	—	803	4166	824	4378	845	4597	865	4821	885	5050	905	5286	925	5527	945	5774	964	6026	984	6284	1003	6548	1022	6818	1040	7094	1059	7375	—	—
8800 [4153]	—	—	—	—	—	—	—	—	—	—	812	4354	833	4573	854	4798	874	5028	894	5264	914	5506	934	5754	953	6008	973	6267	992	6532	1011	6802	1029	7078	1048	7360	1066	7648	—	—
9000 [4247]	—	—	—	—	—	—	—	—	801	4333	822	4553	843	4778	863	5010	883	5247	903	5490	923	5738	942	5992	962	6252	981	6518	1000	6790	1019	7067	1037	7350	1056	7638	1074	7933	—	—
9200 [4341]	—	—	—	—	—	—	—	—	811	4536	832	4762	852	4995	872	5233	892	5476	912	5726	932	5981	951	6242	970	6508	989	6781	1008	7059	1027	7342	1045	7632	1063	7927	—	—	—	—
9400 [4436]	—	—	—	—	—	—	—	—	821	4750	842	4983	862	5222	882	5467	902	5717	921	5973	941	6235	960	6502	979	6775	998	7054	1017	7339	1035	7629	1053	7925	1071	8227	—	—	—	—
9600 [4530]	—	—	—	—	—	—	811	4741	831	4975	851	5215	872	5460	891	5711	911	5968	931	6231	950	6499	969	6773	988	7053	1007	7338	1025	7630	1043	7927	1062	8229	—	—	—	—	—	—
9800 [4624]	—	—	—	—	—	—	821	4971	841	5211	861	5458	881	5710	901	5967	921	6231	940	6500	959	6775	978	7055	997	7342	1015	7634	1034	7932	1052	8235	1070	8544	—	—	—	—	—	—
10000 [4719]	—	—	—	—	811	4970	832	5211	852	5459	872	5711	891	5970	911	6234	930	6504	950	6780	969	7062	987	7349	1006	7642	1024	7940	1043	8245	1061	8555	—	—	—	—	—	—	—	—
10200 [4813]	—	—	801	4973	822	5215	842	5463	862	5717	882	5976	902	6241	921	6512	940	6789	959	7071	978	7359	997	7653	1015	7952	1033	8258	1051	8569	1069	8885	—	—	—	—	—	—	—	—
10400 [4908]	—	—	813	5222	833	5471	853	5726	873	5986	892	6252	912	6524	931	6801	950	7084	969	7373	988	7668	1006	7968	1024	8274	1043	8586	1060	8903	—	—	—	—	—	—	—	—	—	—
10600 [5002]	803	5233	824	5482	844	5738	864	5999	883	6266	903	6539	922	6817	941	7101	960	7391	979	7686	997	7987	1016	8294	1034	8607	1052	8925	1070	9249	—	—	—	—	—	—	—	—	—	—
10800 [5096]	815	5497	835	5754	855	6016	875	6284	894	6557	913	6836	933	7121	952	7412	970	7708	989	8010	1007	8318	1025	8631	1043	8951	1061	9276	—	—	—	—	—	—	—	—	—	—	—	—
11000 [5191]	826	5773	846	6036	866	6305	886	6579	905	6859	924	7145	943	7436	962	7734	981	8036	999	8345	1017	8659	1035	8980	1053	9305	1071	9637	—	—	—	—	—	—	—	—	—	—	—	—
11200 [5285]	838	6060	858	6329	877	6605	897	6885	916	7172	935	7464	954	7763	973	8066	991	8376	1009	8691	1027	9012	1045	9339	1063	9671	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11400 [5379]	850	6358	869	6634	889	6915	908	7203	927	7496	946	7795	965	8100	983	8410	1002	8726	1020	9048	1038	9376	1055	9709	1073	10048	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11600 [5474]	862	6666	881	6949	900	7237	920	7531	938	7831	957	8137	976	8448	994	8765	1012	9088	1030	9416	1048	9750	1065	10090	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11800 [5568]	874	6986	893	7275	912	7570	931	7871	950	8177	968	8489	987	8807	1005	9131	1023	9460	1041	9795	1058	10136	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12000 [5663]	886	7317	905	7612	924	7914	943	8221	961	8534	980	8853	998	9177	1016	9507	1034	9843	1051	10185	1069	10532	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

Drive Package	F						G					
Motor H.P. [W]	7.5 [5592.7]						10 [7457.0]					
Blower Sheave	BK130H						BK120H					
Motor Sheave	1VP71						1VP75					
Turns Open	1	2	**3**	4	5	6	1	2	3	**4**	5	6
RPM	935	909	**882**	857	831	805	1064	1037	1009	**968**	947	926

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

[ ] Designates Metric Conversions

AIRFLOW PERFORMANCE—25 TON [87.9 kW] — 60 Hz — DOWNFLOW (CON'T.)

Airflow	AIRFLOW CORRECTION FACTORS*			COMPONENT AIRFLOW RESISTANCE					
				Wet Coil	Downflow Economizer RA Damper Open	Horizontal Economizer RA Damper Open	Concentric Grill RXRN-AD88 & Transition RXMC-CL09	MERV 8 Filter	MERV 13 Filter
CFM [L/s]	Total kBtu/h	Sensible kBtu/h	Power kW	Resistance — Inches of Water [kPa]					
8000 [3775]	0.97	0.89	0.99	0.07 [.02]	0.22 [.05]	0.09 [.02]	0.17 [.04]	0.13 [.03]	0.11 [.03]
8400 [3964]	0.98	0.92	0.99	0.09 [.02]	0.24 [.06]	0.10 [.02]	0.23 [.06]	0.14 [.03]	0.12 [.03]
8800 [4153]	0.99	0.95	1.00	0.10 [.02]	0.26 [.06]	0.11 [.03]	0.30 [.07]	0.15 [.04]	0.13 [.03]
9200 [4341]	1.00	0.98	1.00	0.12 [.03]	0.28 [.07]	0.12 [.03]	0.36 [.09]	0.16 [.04]	0.15 [.04]
9600 [4530]	1.01	1.01	1.00	0.13 [.03]	0.30 [.07]	0.13 [.03]	0.43 [.11]	0.16 [.04]	0.16 [.04]
1000 [4719]	1.02	1.04	1.01	0.15 [.04]	0.32 [.08]	0.14 [.03]	0.50 [.12]	0.17 [.04]	0.17 [.04]
10400 [4908]	1.03	1.08	1.01	0.16 [.04]	0.34 [.08]	0.15 [.04]	0.56 [.14]	0.18 [.04]	0.18 [.05]
10800 [5096]	1.03	1.11	1.01	0.18 [.04]	0.37 [.09]	0.16 [.04]	0.63 [.16]	0.19 [.05]	0.19 [.05]
11200 [5285]	1.03	1.14	1.02	0.19 [.05]	0.39 [.10]	0.17 [.04]	0.69 [.17]	0.20 [.05]	0.21 [.05]
11600 [5474]	1.04	1.17	1.02	0.21 [.05]	0.41 [.10]	0.18 [.04]	0.76 [.19]	0.20 [.05]	0.22 [.05]
12000 [5663]	1.05	1.20	1.02	0.22 [.05]	0.44 [.11]	0.19 [.05]	0.82 [.20]	0.21 [.05]	0.23 [.06]

NOTES: Multiply correction factor times gross performance data—resulting sensible capacity cannot exceed total capacity.

[ ] Designates Metric Conversions

AIRFLOW PERFORMANCE—25 TON [87.9 kW] — 60 Hz — SIDEFLOW

Air Flow CFM [L/s]	Model RACHYB300 Voltage 208/230, 460 — 3 phase																																					
	External Static Pressure—Inches of Water [kPa]																																					
	0.1 [.02]		0.2 [.05]		0.3 [.07]		0.4 [.10]		0.5 [.12]		0.6 [.15]		0.7 [.17]		0.8 [.20]		0.9 [.22]		1.0 [.25]		1.1 [.27]		1.2 [.30]		1.3 [.32]		1.4 [.35]		1.5 [.37]		1.6 [.40]		1.7 [.42]		1.8 [.45]		1.9 [.47]		2.0 [.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
8000 [3775]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	821	4011	842	4214	863	4418	884	4623	904	4828	923	5033	942	5239	960	5445	977	5651	994	5858	1011	6065	1026	6273
8200 [3869]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	808	3970	830	4178	852	4387	872	4597	893	4807	912	5017	931	5228	950	5439	968	5650	985	5862	1002	6074	1018	6287	1033	6500
8400 [3964]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	818	4142	840	4356	861	4571	882	4785	902	5001	921	5216	940	5432	958	5649	976	5866	993	6083	1009	6301	1025	6519	1040	6737
8600 [4058]	—	—	—	—	—	—	—	—	—	—	—	—	806	4106	828	4325	849	4544	870	4764	891	4984	910	5205	930	5426	948	5647	966	5869	984	6091	1000	6314	1016	6537	1032	6761	1047	6985
8800 [4153]	—	—	—	—	—	—	—	—	—	—	—	—	816	4293	838	4517	859	4742	880	4967	900	5193	919	5419	938	5645	957	5872	974	6099	992	6327	1008	6555	1024	6784	1039	7013	1054	7242
9000 [4247]	—	—	—	—	—	—	—	—	—	—	804	4260	826	4490	848	4720	869	4950	889	5180	909	5412	929	5643	947	5875	965	6107	983	6340	1000	6573	1016	6806	1032	7040	1047	7275	1061	7509
9200 [4341]	—	—	—	—	—	—	—	—	—	—	814	4462	837	4697	858	4932	879	5168	899	5404	919	5640	938	5877	956	6114	974	6352	991	6590	1008	6829	1024	7068	1039	7307	1054	7547	1068	7787
9400 [4436]	—	—	—	—	—	—	—	—	803	4434	825	4674	847	4914	868	5155	889	5396	909	5637	928	5879	947	6121	965	6364	983	6607	1000	6851	1016	7095	1032	7339	1047	7584	1061	7829	—	—
9600 [4530]	—	—	—	—	—	—	—	—	814	4651	836	4896	857	5142	878	5388	899	5634	918	5881	938	6128	956	6376	974	6624	991	6872	1008	7121	1024	7371	1040	7620	1055	7870	1069	8121	—	—
9800 [4624]	—	—	—	—	—	—	802	4627	825	4877	847	5128	868	5379	889	5630	909	5882	928	6135	947	6387	965	6640	983	6894	1000	7148	1017	7402	1032	7657	1048	7912	1062	8167	—	—	—	—
10000 [4719]	—	—	—	—	—	—	813	4858	836	5114	857	5370	878	5626	899	5883	919	6141	938	6398	957	6656	975	6915	992	7174	1009	7433	1025	7693	1041	7953	1056	8213	1070	8474	—	—	—	—
10200 [4813]	—	—	—	—	802	4839	825	5100	847	5361	868	5622	889	5884	909	6146	929	6409	948	6672	966	6935	984	7199	1001	7464	1018	7728	1034	7993	1049	8259	1064	8525	—	—	—	—	—	—
10400 [4908]	—	—	—	—	814	5085	836	5351	858	5618	879	5884	900	6152	920	6419	939	6687	958	6956	976	7225	993	7494	1010	7764	1027	8034	1043	8304	1058	8575	1072	8846	—	—	—	—	—	—
10600 [5002]	—	—	803	5070	826	5341	848	5613	869	5884	890	6157	910	6429	930	6702	949	6976	968	7250	986	7524	1003	7799	1020	8074	1036	8349	1051	8625	1066	8901	—	—	—	—	—	—	—	—
10800 [5096]	—	—	815	5331	837	5607	859	5884	881	6161	901	6439	921	6717	941	6995	960	7274	978	7553	996	7833	1013	8113	1029	8394	1045	8675	1060	8956	1075	9238	—	—	—	—	—	—	—	—
11000 [5191]	804	5320	827	5602	849	5883	871	6166	892	6448	912	6731	932	7015	951	7299	970	7583	988	7867	1005	8153	1022	8438	1038	8724	1054	9010	1069	9297	—	—	—	—	—	—	—	—	—	—
11200 [5285]	817	5596	839	5882	861	6170	883	6457	903	6745	923	7034	943	7323	962	7612	980	7901	998	8191	1015	8482	1032	8773	1048	9064	1063	9356	—	—	—	—	—	—	—	—	—	—	—	—
11400 [5379]	829	5881	851	6173	873	6466	894	6759	915	7052	935	7346	954	7640	973	7935	991	8230	1008	8526	1025	8821	1042	9118	1057	9414	1072	9712	—	—	—	—	—	—	—	—	—	—	—	—
11600 [5474]	842	6177	864	6474	885	6772	906	7071	926	7369	946	7669	965	7968	983	8268	1001	8569	1019	8870	1035	9171	1051	9473	1067	9775	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11800 [5568]	854	6482	876	6785	897	7089	918	7392	938	7697	957	8001	976	8306	994	8612	1012	8918	1029	9224	1045	9531	1061	9838	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12000 [5663]	867	6798	888	7106	909	7415	930	7724	949	8034	969	8344	987	8654	1005	8965	1023	9277	1039	9588	1056	9900	1071	10213	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

Drive Package	F						G					
Motor H.P. [W]	7.5 [5592.7]						10 [7457.0]					
Blower Sheave	BK130H						BK120H					
Motor Sheave	1VP71						1VP75					
Turns Open	1	2	**3**	4	5	6	1	2	3	**4**	5	6
RPM	936	910	**884**	857	831	806	1066	1040	1014	**972**	951	930

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

[ ] Designates Metric Conversions

AIRFLOW PERFORMANCE—25 TON [87.9 kW] — 60 Hz — SIDEFLOW (CON'T.)

Airflow	AIRFLOW CORRECTION FACTORS*			COMPONENT AIRFLOW RESISTANCE					
				Wet Coil	Downflow Economizer RA Damper Open	Horizontal Economizer RA Damper Open	Concentric Grill RXRN-AD88 & Transition RXMC-CL09	MERV 8 Filter	MERV 13 Filter
CFM [L/s]	Total kBtu/h	Sensible kBtu/h	Power kW	Resistance — Inches of Water [kPa]					
8000 [3775]	0.97	0.89	0.99	0.07 [.02]	0.22 [.05]	0.09 [.02]	0.17 [.04]	0.13 [.03]	0.11 [.03]
8400 [3964]	0.98	0.92	0.99	0.09 [.02]	0.24 [.06]	0.10 [.02]	0.23 [.06]	0.14 [.03]	0.12 [.03]
8800 [4153]	0.99	0.95	1.00	0.10 [.02]	0.26 [.06]	0.11 [.03]	0.30 [.07]	0.15 [.04]	0.13 [.03]
9200 [4341]	0.99	0.98	1.00	0.12 [.03]	0.28 [.07]	0.12 [.03]	0.36 [.09]	0.16 [.04]	0.15 [.04]
9600 [4530]	1.00	1.01	1.00	0.13 [.03]	0.30 [.07]	0.13 [.03]	0.43 [.11]	0.16 [.04]	0.16 [.04]
10000 [4719]	1.01	1.04	1.01	0.15 [.04]	0.32 [.08]	0.14 [.03]	0.50 [.12]	0.17 [.04]	0.17 [.04]
10400 [4908]	1.02	1.08	1.01	0.16 [.04]	0.34 [.08]	0.15 [.04]	0.56 [.14]	0.18 [.04]	0.18 [.05]
10800 [5096]	1.03	1.11	1.01	0.18 [.04]	0.37 [.09]	0.16 [.04]	0.63 [.16]	0.19 [.05]	0.19 [.05]
11200 [5285]	1.03	1.14	1.02	0.19 [.05]	0.39 [.10]	0.17 [.04]	0.69 [.17]	0.20 [.05]	0.21 [.05]
11600 [5474]	1.04	1.17	1.02	0.21 [.05]	0.41 [.10]	0.18 [.04]	0.76 [.19]	0.20 [.05]	0.22 [.05]
12000 [5663]	1.05	1.20	1.02	0.22 [.05]	0.44 [.11]	0.19 [.05]	0.82 [.20]	0.21 [.05]	0.23 [.06]

NOTES: Multiply correction factor times gross performance data—resulting sensible capacity cannot exceed total capacity.

[ ] Designates Metric Conversions

ELECTRICAL DATA – RACHYB SERIES

		180ACF	180ACG	180ADF	180ADG
Unit Information	Unit Operating Voltage Range	187-253	187-253	414-506	414-506
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	Hz	60	60	60	60
	Minimum Circuit Ampacity	79/79	84/84	35	37
	Minimum Circuit Ampacity with Power Exhaust	89/89	94/94	40	41
	Minimum Overcurrent Protection Device Size	90/90	100/100	40	40
	Minimum Overcurrent Protection Device Size with Power Exhaust	100/100	110/110	45	45
	Maximum Overcurrent Protection Device Size	100/100	110/110	45	45
	Maximum Overcurrent Protection Device Size with Power Exhaust	110/110	110/110	50	50
Compressor Motor	No.	2	2	2	2
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	Amps (RLA), Comp. 1	27.7	27.7	11.5	11.5
	Amps (LRA), Comp. 1	178.5	178.5	103.0	103.0
	Amps (RLA), Comp. 2	27.7	27.7	11.5	11.5
	Amps (LRA), Comp. 2	178.5	178.5	103.0	103.0
Condenser Motor	No.	3	3	3	3
	Volts	208/230	208/230	460	460
	Phase	1	1	1	1
	HP	1/3	1/3	1/3	1/3
	Amps (FLA, each)	2.4	2.4	1.4	1.4
	Amps (LRA, each)	4.7	4.7	2.4	2.4
Evaporator Fan	No.	1	1	1	1
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	HP	3	5	3	5
	Amps (FLA, each)	9.2	13.6	4.6	6.3
	Amps (LRA, each)	74.5	86.0	38.4	47.5

ELECTRICAL DATA – RACHYB SERIES					
		210ACF	**210ACG**	**210ADF**	**210ADG**
Unit Information	Unit Operating Voltage Range	187-253	187-253	414-506	414-506
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	Hz	60	60	60	60
	Minimum Circuit Ampacity	84/84	88/88	39	40
	Minimum Circuit Ampacity with Power Exhaust	94/94	98/98	43	45
	Minimum Overcurrent Protection Device Size	100/100	100/100	45	45
	Minimum Overcurrent Protection Device Size with Power Exhaust	110/110	110/110	50	50
	Maximum Overcurrent Protection Device Size	110/110	110/110	50	50
	Maximum Overcurrent Protection Device Size with Power Exhaust	110/110	125/125	50	50
Compressor Motor	No.	2	2	2	2
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	Amps (RLA), Comp. 1	28.7	28.7	12.4	12.4
	Amps (LRA), Comp. 1	207.5	207.5	100.2	100.2
	Amps (RLA), Comp. 2	28.7	28.7	12.4	12.4
	Amps (LRA), Comp. 2	207.5	207.5	100.2	100.2
Condenser Motor	No.	4	4	4	4
	Volts	208/230	208/230	460	460
	Phase	1	1	1	1
	HP	1/3	1/3	1/3	1/3
	Amps (FLA, each)	2.4	2.4	1.4	1.4
	Amps (LRA, each)	4.7	4.7	2.4	2.4
Evaporator Fan	No.	1	1	1	1
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	HP	3	5	3	5
	Amps (FLA, each)	9.2	13.6	4.6	6.3
	Amps (LRA, each)	74.5	86.0	38.4	47.5

ELECTRICAL DATA – RACHYB SERIES

		240ACF	240ACG 240ACH	240ADF	240ADG 240ADH
Unit Information	Unit Operating Voltage Range	187-253	187-253	414-506	414-506
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	Hz	60	60	60	60
	Minimum Circuit Ampacity	99/99	106/106	47	50
	Minimum Circuit Ampacity with Power Exhaust	109/109	116/116	51	55
	Minimum Overcurrent Protection Device Size	110/110	125/125	60	60
	Minimum Overcurrent Protection Device Size with Power Exhaust	125/125	125/125	60	60
	Maximum Overcurrent Protection Device Size	125/125	125/125	60	60
	Maximum Overcurrent Protection Device Size with Power Exhaust	125/125	125/125	60	60
Compressor Motor	No.	2	2	2	2
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	Amps (RLA), Comp. 1	33.3	33.3	15.4	15.4
	Amps (LRA), Comp. 1	255.0	255.0	140.0	140.0
	Amps (RLA), Comp. 2	28.7	28.7	12.4	12.4
	Amps (LRA), Comp. 2	207.5	207.5	100.2	100.2
Condenser Motor	No.	6	6	6	6
	Volts	208/230	208/230	460	460
	Phase	1	1	1	1
	HP	1/3	1/3	1/3	1/3
	Amps (FLA, each)	2.4	2.4	1.4	1.4
	Amps (LRA, each)	4.7	4.7	2.4	2.4
Evaporator Fan	No.	1	1	1	1
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	HP	5	7.5	5	7.5
	Amps (FLA, each)	13.6	21.0	6.3	9.6
	Amps (LRA, each)	86.0	115.0	47.5	63.5

ELECTRICAL DATA – RACHYB SERIES

		300ACF	300ACG	300ADF	300ADG
Unit Information	Unit Operating Voltage Range	187-253	187-253	414-506	414-506
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	Hz	60	60	60	60
	Minimum Circuit Ampacity	128/128	135/135	62	65
	Minimum Circuit Ampacity with Power Exhaust	138/138	145/145	67	69
	Minimum Overcurrent Protection Device Size	150/150	150/150	70	70
	Minimum Overcurrent Protection Device Size with Power Exhaust	150/150	175/175	80	80
	Maximum Overcurrent Protection Device Size	150/150	150/150	80	80
	Maximum Overcurrent Protection Device Size with Power Exhaust	175/175	175/175	80	80
Compressor Motor	No.	2	2	2	2
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	Amps (RLA), Comp. 1	40.8	40.8	19.4	19.4
	Amps (LRA), Comp. 1	270.0	270.0	147.0	147.0
	Amps (RLA), Comp. 2	40.8	40.8	19.4	19.4
	Amps (LRA), Comp. 2	270.0	270.0	147.0	147.0
Condenser Motor	No.	6	6	6	6
	Volts	208/230	208/230	460	460
	Phase	1	1	1	1
	HP	1/3	1/3	1/3	1/3
	Amps (FLA, each)	2.4	2.4	1.4	1.4
	Amps (LRA, each)	4.7	4.7	2.4	2.4
Evaporator Fan	No.	1	1	1	1
	Volts	208/230	208/230	460	460
	Phase	3	3	3	3
	HP	7.5	10	7.5	10
	Amps (FLA, each)	21.0	28.0	9.6	12.5
	Amps (LRA, each)	115.0	149.2	63.5	76.0

208/230V 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. RACHYB	Heater Kit			Air Conditioner				Heater Kit		Air Conditioner			
	Model No. RXJJ-	Rated Heater kW @ 208/230V	Heater Kit 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. Bkt. Size	Air Cond. Max Fuse or Ckt. Bkr. Size with with Optional Powered Exhaust
180ACF	NONE*	—/—	—/—	79/79	89/89	100/100	110/110	—	—	79/79	89/89	100/100	110/110
	CE20C	14.4/19.2	40.0/46.2	79/79	89/89	100/100	110/110	50/58	50/60	79/79	89/89	100/100	110/110
	CE40C	28.8/38.4	79.9/92.4	112/127	124/140	125/150	125/150	100/116	100/125	79/79	89/89	100/100	110/110
	CE60C	43.2/57.6	119.9/138.6	162/185	174/198	175/200	175/200	150/174	150/175	79/79	89/89	100/100	110/110
	CE75C	54.0/72.0	149.9/173.2	199/228	212/241	200/250	225/250	188/217	200/225	79/79	89/89	100/100	110/110
180ACG	NONE*	—/—	—/—	84/84	94/94	110/110	110/110	—	—	84/84	94/94	110/110	110/110
	CE20C	14.4/19.2	40.0/46.2	84/84	94/94	110/110	110/110	50/58	50/60	84/84	94/94	110/110	110/110
	CE40C	28.8/38.4	79.9/92.4	117/133	130/145	125/150	150/150	100/116	100/125	84/84	94/94	110/110	110/110
	CE60C	43.2/57.6	119.9/138.6	167/191	180/203	175/200	200/225	150/174	150/175	84/84	94/94	110/110	110/110
	CE75C	54.0/72.0	149.9/173.2	205/234	217/246	225/250	225/250	188/217	200/225	84/84	94/94	110/110	110/110
210ACF	NONE*	—/—	—/—	84/84	94/94	110/110	110/110	—	—	84/84	94/94	110/110	110/110
	CE20C	14.4/19.2	40.0/46.2	84/84	94/94	110/110	110/110	50/58	50/60	84/84	94/94	110/110	110/110
	CE40C	28.8/38.4	79.9/92.4	112/127	124/140	125/150	125/150	100/116	100/125	84/84	94/94	110/110	110/110
	CE60C	43.2/57.6	119.9/138.6	162/185	174/198	175/200	175/200	150/174	150/175	84/84	94/94	110/110	110/110
	CE75C	54.0/72.0	149.9/173.2	199/228	212/241	200/250	225/250	188/217	200/225	84/84	94/94	110/110	110/110
210ACG	NONE*	—/—	—/—	88/88	98/98	110/110	125/125	—	—	88/88	98/98	110/110	125/125
	CE20C	14.4/19.2	40.0/46.2	88/88	98/98	110/110	125/125	50/58	50/60	88/88	98/98	110/110	125/125
	CE40C	28.8/38.4	79.9/92.4	117/133	130/145	125/150	150/150	100/116	100/125	88/88	98/98	110/110	125/125
	CE60C	43.2/57.6	119.9/138.6	167/191	180/203	175/200	200/225	150/174	150/175	88/88	98/98	110/110	125/125
	CE75C	54.0/72.0	149.9/173.2	205/234	217/246	225/250	225/250	188/217	200/225	88/88	98/98	110/110	125/125

*= For Canadian use only. Uses “P” fuses for inductive circuit.

+ = Field-installed only.

208/230V 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. RACHYB	Heater Kit			Air Conditioner				Heater Kit		Air Conditioner			
	Model No. RXJJ-	Rated Heater kW @ 208/230V	Heater Kit 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. Bkt. Size	Air Cond. Max Fuse or Ckt. Bkr. Size with with Optional Powered Exhaust
240ACF	NONE*	—/—	—/—	99/99	109/109	125/125	125/125	—	—	99/99	109/109	125/125	125/125
	CE20C	14.4/19.2	40.0/46.2	99/99	109/109	125/125	125/125	50/58	50/60	99/99	109/109	125/125	125/125
	CE40C	28.8/38.4	79.9/92.4	117/133	130/145	125/150	150/150	100/116	100/125	99/99	109/109	125/125	125/125
	CE60C	43.2/57.6	119.9/138.6	167/191	180/203	175/200	200/225	150/174	150/175	99/99	109/109	125/125	125/125
	CE75C	54.0/72.0	149.9/173.2	205/234	217/246	225/250	225/250	188/217	200/225	99/99	109/109	125/125	125/125
240ACG	NONE*	—/—	—/—	106/106	116/116	125/125	125/125	—	—	106/106	116/116	125/125	125/125
	CE20C	14.4/19.2	40.0/46.2	106/106	116/116	125/125	125/125	50/58	50/60	106/106	116/116	125/125	125/125
	CE40C	28.8/38.4	79.9/92.4	127/142	139/155	150/150	150/175	100/116	100/125	106/106	116/116	125/125	125/125
	CE60C	43.2/57.6	119.9/138.6	177/200	189/212	200/200	200/225	150/174	150/175	106/106	116/116	125/125	125/125
	CE75C	54.0/72.0	149.9/173.2	214/243	227/256	225/250	250/300	188/217	200/225	106/106	116/116	125/125	125/125
240ACH	NONE*	—/—	—/—	106/106	116/116	125/125	125/125	—	—	106/106	116/116	125/125	125/125
	CE20C	14.4/19.2	40.0/46.2	106/106	116/116	125/125	125/125	50/58	50/60	106/106	116/116	125/125	125/125
	CE40C	28.8/38.4	79.9/92.4	127/142	139/155	150/150	150/175	100/116	100/125	106/106	116/116	125/125	125/125
	CE60C	43.2/57.6	119.9/138.6	177/200	189/212	200/200	200/225	150/174	150/175	106/106	116/116	125/125	125/125
	CE75C	54.0/72.0	149.9/173.2	214/243	227/256	225/250	250/300	188/217	200/225	106/106	116/116	125/125	125/125
300ACF	NONE*	—/—	—/—	128/128	138/138	150/150	175/175	—	—	128/128	138/138	150/150	175/175
	CE20C	14.4/19.2	40.0/46.2	128/128	138/138	150/150	175/175	50/58	50/60	128/128	138/138	150/150	175/175
	CE40C	28.8/38.4	79.9/92.4	128/142	139/155	150/150	175/175	100/116	100/125	128/128	138/138	150/150	175/175
	CE60C	43.2/57.6	119.9/138.6	177/200	189/212	200/200	200/225	150/174	150/175	128/128	138/138	150/150	175/175
	CE75C	54.0/72.0	149.9/173.2	214/243	227/256	225/250	250/300	188/217	200/225	128/128	138/138	150/150	175/175
300ACG	NONE*	—/—	—/—	135/135	145/145	150/150	175/175	—	—	135/135	145/145	175/175	175/175
	CE20C	14.4/19.2	40.0/46.2	135/135	145/145	150/150	175/175	50/58	50/60	135/135	145/145	175/175	175/175
	CE40C	28.8/38.4	79.9/92.4	135/151	148/163	150/175	175/175	100/116	100/125	135/135	145/145	175/175	175/175
	CE60C	43.2/57.6	119.9/138.6	185/209	198/221	200/225	200/225	150/174	150/175	135/135	145/145	175/175	175/175
	CE75C	54.0/72.0	149.9/173.2	223/252	235/264	225/300	250/300	188/217	200/225	135/135	145/145	175/175	175/175

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+ = Field-installed only.

460V, 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. RACHYB	Heater Kit			Air Conditioner				Heater Kit		Air Conditioner			
	Model No. RXJJ-	Rated Heater kW @ 460	Heater Kit 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. Bkt. Size	Air Cond. Max Fuse or Ckt. Bkr. Size with with Optional Powered Exhaust
180ADF	NONE*	—	—	35	40	45	50	—	—	35	40	45	50
	CE20D	19.2	23.1	35	41	45	50	29	30	35	40	45	50
	CE40D	38.4	46.2	64	69	70	70	58	60	35	40	45	50
	CE60D	57.6	69.3	93	98	100	100	87	90	35	40	45	50
	CE75D	72.0	86.6	114	120	125	125	109	110	35	40	45	50
180ADG	NONE*	—	—	37	41	45	50	—	—	37	41	45	50
	CE20D	19.2	23.1	37	43	45	50	29	30	37	41	45	50
	CE40D	38.4	46.2	66	72	70	80	58	60	37	41	45	50
	CE60D	57.6	69.3	95	100	100	100	87	90	37	41	45	50
	CE75D	72.0	86.6	117	122	125	125	109	110	37	41	45	50
210ADF	NONE*	—	—	39	43	50	50	—	—	39	43	50	50
	CE20D	19.2	23.1	39	43	50	50	29	30	39	43	50	50
	CE40D	38.4	46.2	64	69	70	70	58	60	39	43	50	50
	CE60D	57.6	69.3	93	98	100	100	87	90	39	43	50	50
	CE75D	72.0	86.6	114	120	125	125	109	110	39	43	50	50
210ADG	NONE*	—	—	40	45	50	50	—	—	40	45	50	50
	CE20D	19.2	23.1	40	45	50	50	29	30	40	45	50	50
	CE40D	38.4	46.2	66	72	70	80	58	60	40	45	50	50
	CE60D	57.6	69.3	95	100	100	100	87	90	40	45	50	50
	CE75D	72.0	86.6	117	122	125	125	109	110	40	45	50	50

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460V THREE PHASE, 60 Hz, AUXILIARY ELECTRIC HEATER KITS CHARACTERISTICS AND APPLICATION

Unit Model No. RACHYB	Single Power Supply For Both Unit and Heater Kit							Separate Power Supply For Both Unit and Heater Kit					
	Heater Kit			Air Conditioner				Heater Kit		Air Conditioner			
	Model No. RXJJ-	Rated Heater kW @ 208/230V	Heater Kit 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. Bkt. Size	Air Cond. Max Fuse or Ckt. Bkr. Size with with Optional Powered Exhaust
240ADF	NONE*	—	—	47	51	60	60	—	—	47	51	60	60
	CE20C	19.2	23.1	47	51	60	60	29	30	47	51	60	60
	CE40C	38.4	46.2	66	72	70	80	58	60	47	51	60	60
	CE60C	57.6	69.3	95	100	100	100	87	90	47	51	60	60
	CE75C	72.0	86.6	117	122	125	125	109	110	47	51	60	60
240ADG	NONE*	—	—	50	55	60	60	—	—	50	55	60	60
	CE20D	19.2	23.1	50	55	60	60	29	30	50	55	60	60
	CE40D	38.4	46.2	70	76	70	80	58	60	50	55	60	60
	CE60D	57.6	69.3	99	105	100	110	87	90	50	55	60	60
	CE75D	72.0	86.6	121	126	125	150	109	110	50	55	60	60
240ADH	NONE*	—	—	50	55	60	60	—	—	50	55	60	60
	CE20D	19.2	23.1	50	55	60	60	29	30	50	55	60	60
	CE40D	38.4	46.2	70	76	70	80	58	60	50	55	60	60
	CE60D	57.6	69.3	99	105	100	110	87	90	50	55	60	60
	CE75D	72.0	86.6	121	126	125	150	109	110	50	55	60	60
300ADF	NONE*	—	—	62	67	80	80	—	—	62	67	80	80
	CE20D	19.2	23.1	62	67	80	80	29	30	62	67	80	80
	CE40D	38.4	46.2	70	76	80	80	58	60	62	67	80	80
	CE60D	57.6	69.3	99	105	100	110	87	90	62	67	80	80
	CE75D	72.0	86.6	121	126	125	150	109	110	62	67	80	80
300ADG	NONE*	—	—	65	69	80	80	—	—	65	69	80	80
	CE20D	19.2	23.1	65	69	80	80	29	30	65	69	80	80
	CE40D	38.4	46.2	74	79	80	80	58	60	65	69	80	80
	CE60D	57.6	69.3	103	108	110	110	87	90	65	69	80	80
	CE75D	72.0	86.6	124	130	125	150	109	110	65	69	80	80

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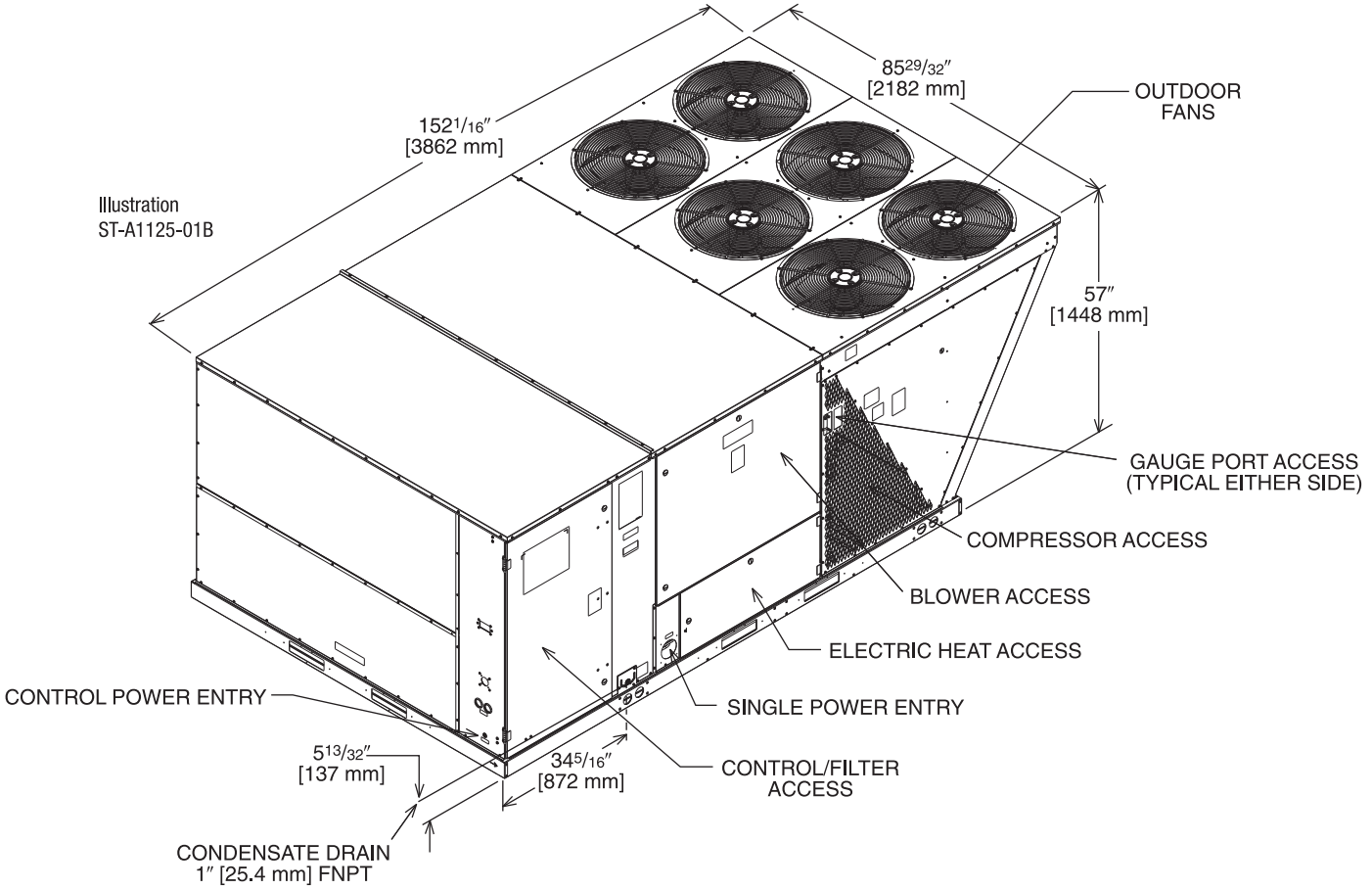
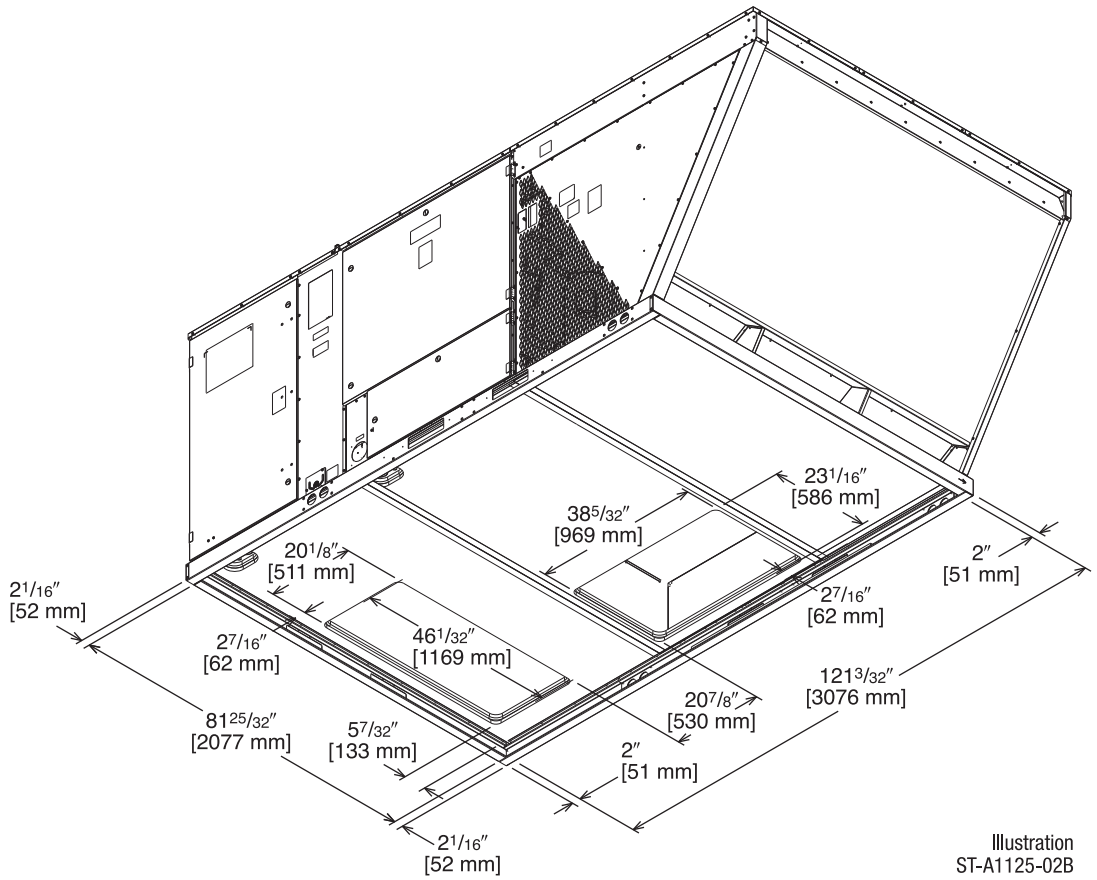
A2L REFRIGERANT INSTALLATION SAFETY DATA

		RACHYB180	RACHYB210	RACHYB240	RACHYB300	RACHYB180 w/HumidiDry	RACHYB240 w/HumidiDry	RACHYB300 w/HumidiDry
Refrigerant Charge weight (oz) Circuit 1/Circuit 2		142.4/146.4	161.6/168	212.8/206.4	228.8/216	255.36/160	300.8/220.8	316/221.6
Minimum circulation		487	559	708	761	849	1000	1051
Altitude above Sea Level (Ft.)	**Altitude Adjustment Factor**	**Minimum Total Conditioned Room Area, TAmin (Sq. Ft.)**						
0	1.000	270	310	392	422	471	554	582
1000	1.025	277	317	402	432	482	568	597
2000	1.051	284	325	412	443	495	583	612
3000	1.078	291	334	423	455	507	598	628
4000	1.107	299	343	434	467	521	614	645
5000	1.138	307	352	446	480	536	631	663
6000	1.170	316	362	459	493	551	649	681
6500	1.187	320	368	466	501	559	658	691



BOTTOM VIEW



[ ] Designates Metric Conversions

SUPPLY AND RETURN DIMENSIONS FOR HORIZONTAL APPLICATIONS (VIEW FROM REAR DUCT SIDE)

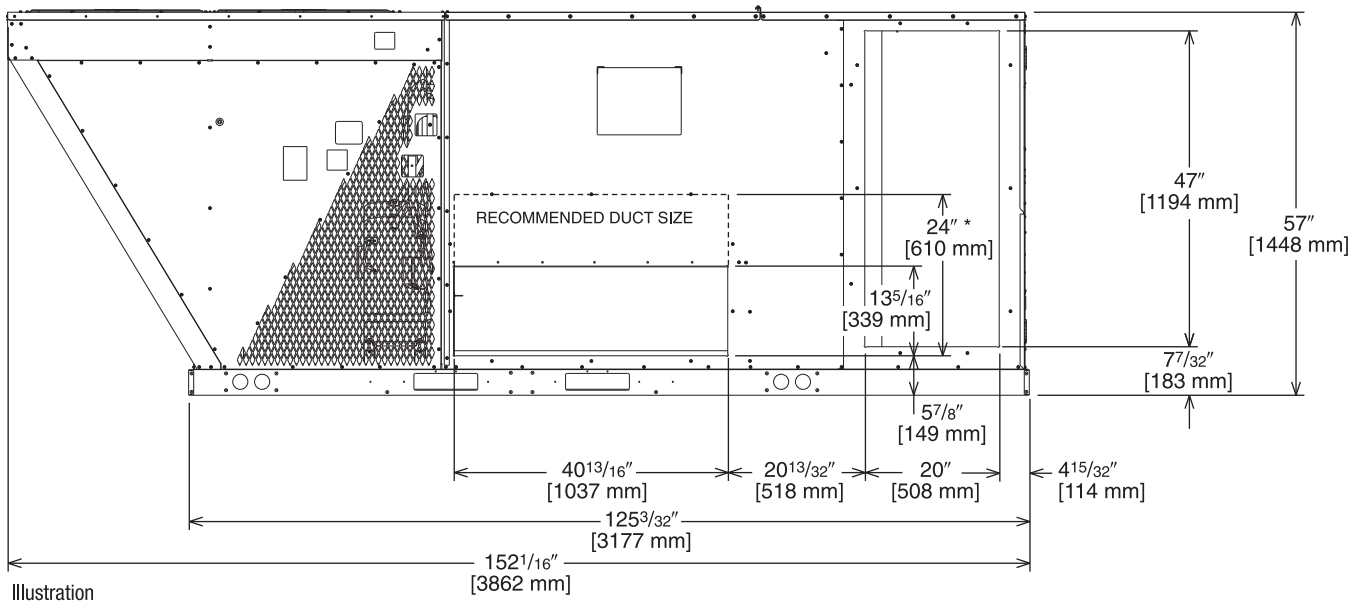


Illustration
ST-A1125-08B

* RECOMMENDED DUCT SIZE

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

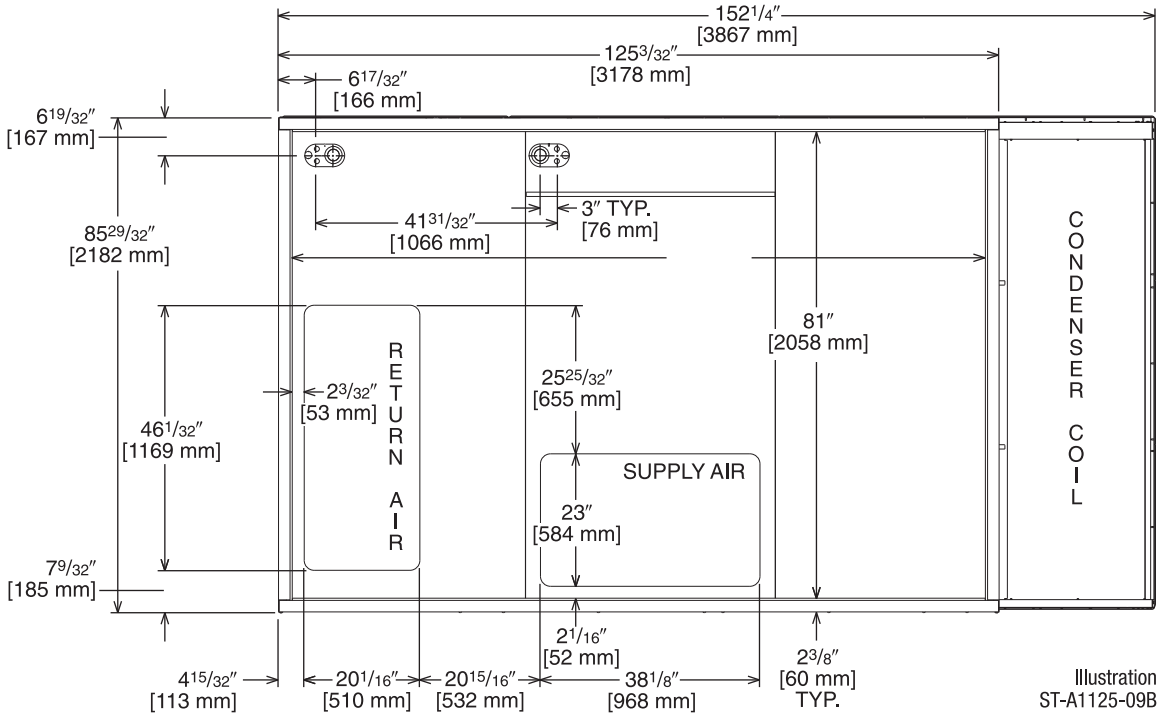


Illustration
ST-A1125-09B

[ ] Designates Metric Conversions

UNIT DIMENSIONS

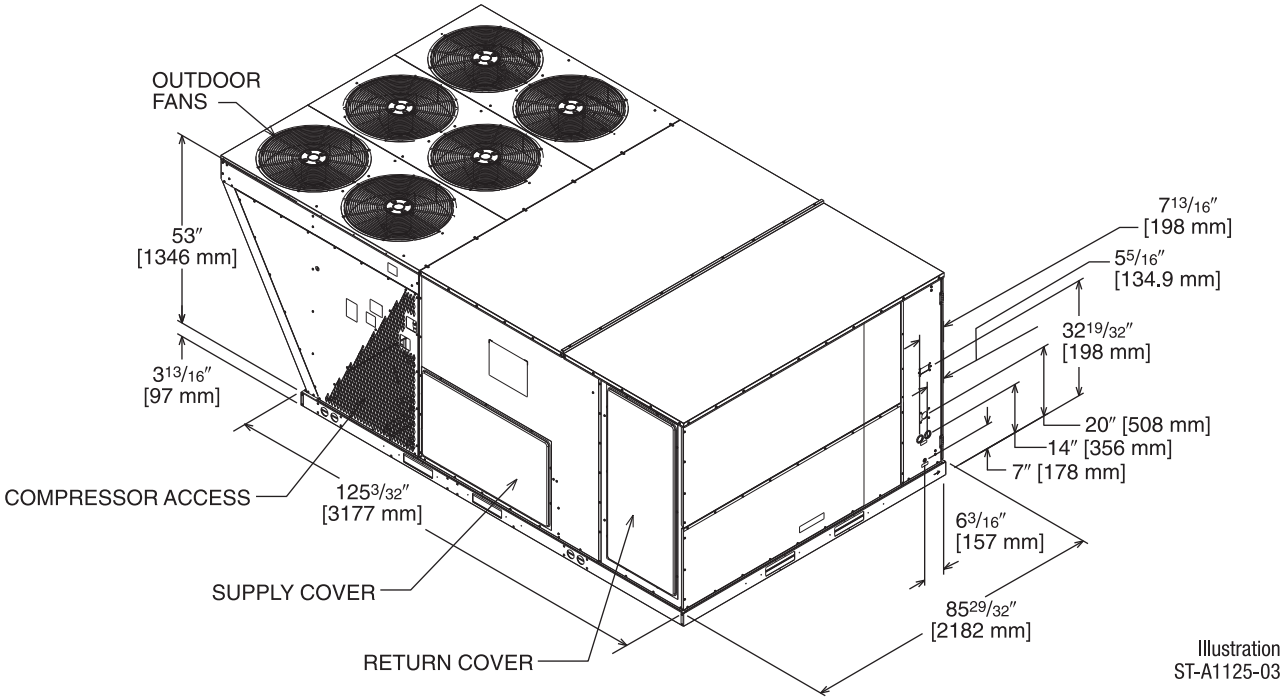
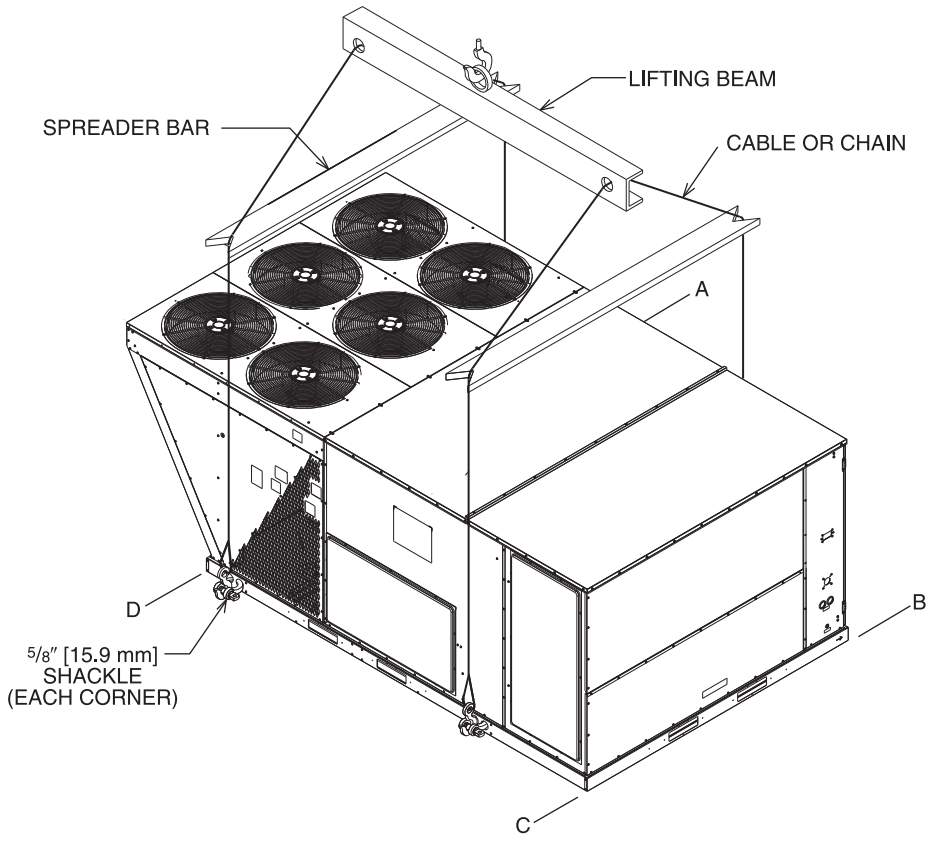


Illustration ST-A1125-03



Corner Weights by Percentage			
A	B	C	D
32%	27%	16%	24%

*Note: Corner weights measured at base of unit.

[ ] Designates Metric Conversions

SLAB INSTALLATION

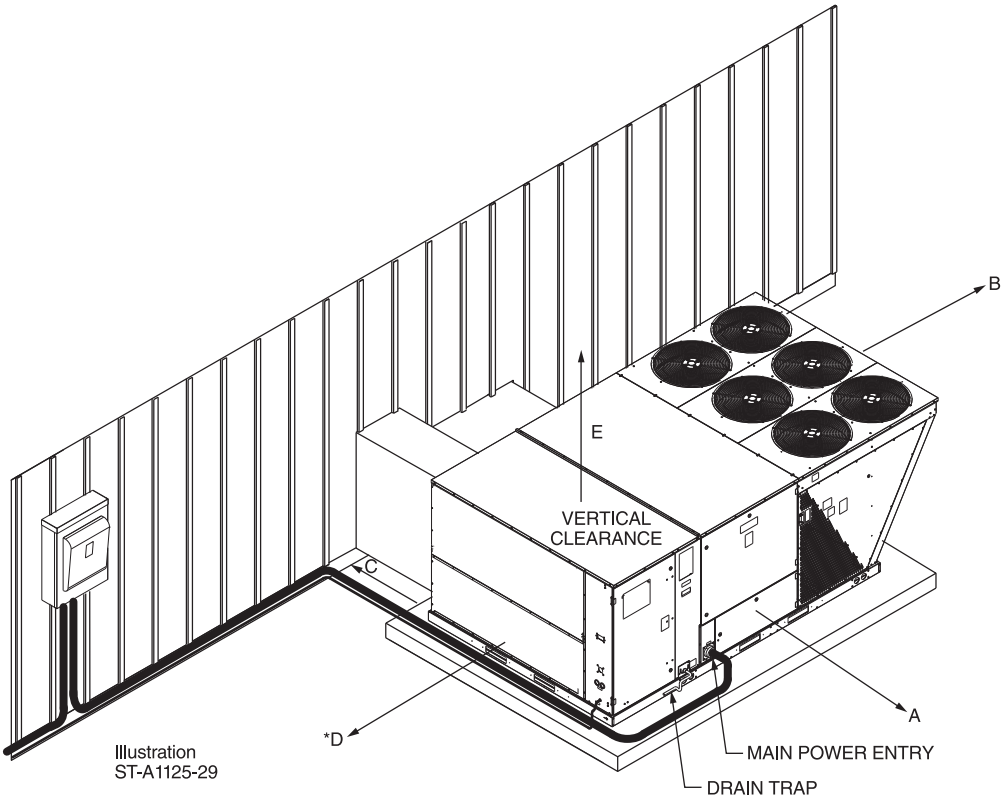


Illustration
ST-A1125-29

CLEARANCES

The following minimum clearances are recommended for proper unit performance and serviceability.

Recommended Clearance In. [mm]	Location
80 [2032]	A - Front
18 [457]	B - Condenser Coil
18 [457]	+C - Duct Side
18 [457]	*D - Evaporator End
60 [1524]	E - Above

*Without Economizer 18" [457 mm].
With Economizer 48" [1219 mm].
+Without Horizontal Economizer 18" [457 mm].
With Horizontal Economizer 42" [1067 mm].

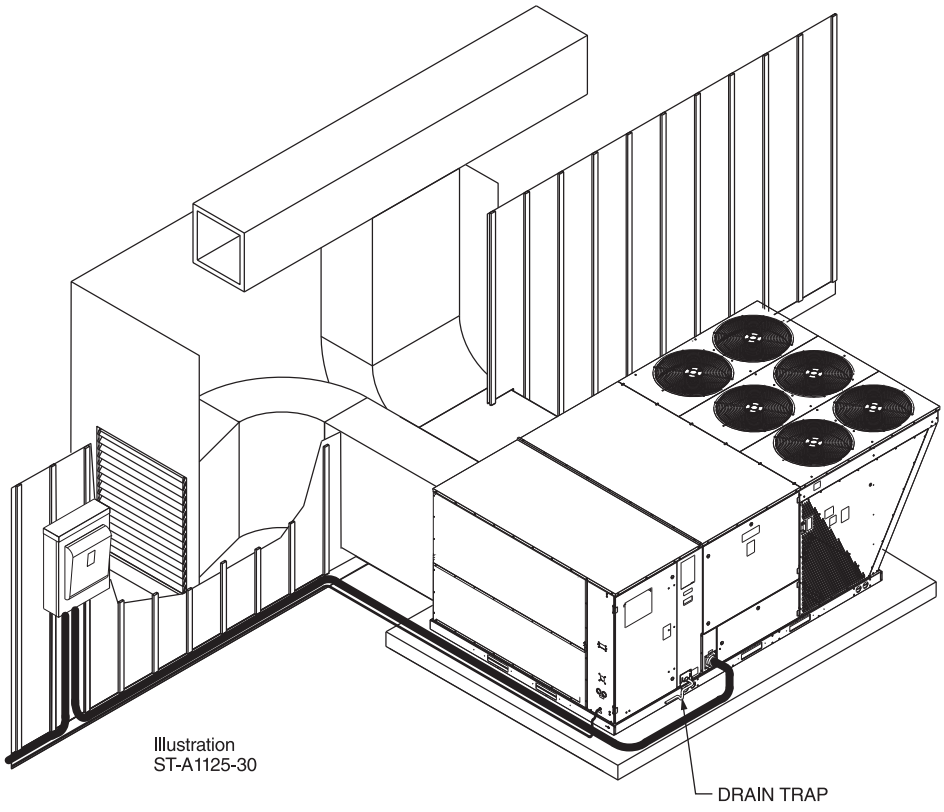


Illustration
ST-A1125-30

[ ] Designates Metric Conversions

FIELD-INSTALLED ACCESSORY EQUIPMENT

Accessory	Model Number	Shipping Weight Lbs. [kg]	Installed Weight Lbs. [kg]	Factory Installation Available?
Economizers				
DDC Economizer with Single Enthalpy (Downflow) *Ruskin Rooftop Systems Economizer with Honeywell Controller*	AXRD-01RMDCM3	277 [125.6]	168 [76.2]	Yes
DDC Economizer with Single Enthalpy (Downflow) *Ruskin Rooftop Systems Economizer with Honeywell Controller w/Smoke Detector*	AXRD-01RMDDM3	277 [125.6]	168 [76.2]	Yes
DDC Economizer with Single Enthalpy (Horizontal) *Ruskin Rooftop Systems Economizer with Honeywell Controller*	AXRD-01RMHCM3	333 [151.0]	301 [36.5]	No
Non-DDC Economizer with Single Enthalpy (Downflow) *Ruskin Rooftop Systems Economizer with Siemens Controller*	RXRD-51MHDAM3	277 [125.6]	168 [76.2]	Yes
Non-DDC Economizer with Single Enthalpy (Horizontal) *Ruskin Rooftop Systems Economizer with Siemens Controller*	RXRD-51MHHAM3	333 [151.0]	301 [36.5]	No
Economizer Universal DDC Interface Kit	RXRX-DDC02	40. [18.1]	34 [15.4]	Yes

Accessory	Model Number	Shipping Weight Lbs. [kg]	Installed Weight Lbs. [kg]	Factory Installation Available?
Comfort Alert® (1 per Compressor)	RXRX-AZ01	3 [1.4]	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/Transition (15 & 17.5 ton)	RXMC-CJ07	81 [36.7]	74 [33.6]	No
Concentric Adapter/Transition (20 ton)	RXMC-CK08	81 [36.7]	74 [33.6]	No
Concentric Adapter/Transition (25 ton)	RXMC-CL09	81 [36.7]	74 [33.6]	No
Concentric Flush Mount Diffuser (15 & 17.5 ton)	RXRN-AD80	213 [96.6]	115 [52.2]	No
Concentric Step Down Diffuser (15 & 17.5 ton)	RXRN-AD81	310 [140.6]	157 [71.2]	No
Concentric Step Down Diffuser (20 ton)	RXRN-AD86	367 [166.5]	212 [96.2]	No
Concentric Step Down Diffuser (25 ton)	RXRN-AD88	410 [186.0]	370 [67.8]	No
Dual Enthalpy, Temperature and Humidity Sensor (for Honeywell DDC)	RXRX-AV04	1 [0.5]	1 [0.5]	No
Dual Enthalpy, Temperature and Humidity Sensor (for Siemens Non-DDC)	PD555460	1 [0.5]	1 [0.5]	No
Electric Heaters	RXJJ-CE20 (C, D)	41 [18.6]	31 [14.1]	Yes
	RXJJ-CE40 (C, D)	44 [20.0]	34 [15.4]	Yes
	RXJJ-CE60 (C, D)	45 [20.4]	35 [15.9]	Yes
	RXJJ-CE75 (C, D)	46 [20.8]	36 [16.3]	Yes
Fresh Air Damper[1], Manual	AXRF-KFA1	61 [27.7]	52 [23.6]	No
Fresh Air Damper[1], Motorized (DDC)	RXRX-AW05	45 [20.4]	38 [17.2]	No
Hail Guard Louvers	AXRX-AAD01L	55 [24.8]	45 [20.3]	Yes
Low-Ambient Control Kit (1 Per Compressor)	RXRZ-C02	3 [1.4]	2 [0.9]	Yes
MERV 8 Filter	RXMF-M08A22520	2 [0.9]	1 [0.45]	Yes
MERV 13 Filter	RXMF-M13A22520	2 [0.9]	1 [0.45]	Yes
Power Exhaust (208/230V) Kit, Convertible (RRS)	RXRX-BGF05C	119 [54.0]	59 [26.8]	No
Power Exhaust (460V) Kit, Convertible (RRS)	RXRX-BGF05D	119 [54.0]	59 [26.8]	No
Roofcurb, 14"	RXKG-CBH14	184 [83.5]	176 [79.8]	No
Roofcurb Adapter to RXKG-CAF14	RXRX-CJCF14	555 [251.7]	505 [29.1]	No
Roofcurb Adapter to RXRK-E56	RXRX-CJCE56	465 [210.9]	415 [88.2]	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

[1]Motorized Kit and Manual Fresh Air Damper must be combined for a complete Motorized Outside Air Damper Selection.

[ ] Designates Metric Conversions

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.

CONCENTRIC DIFFUSER APPLICATION

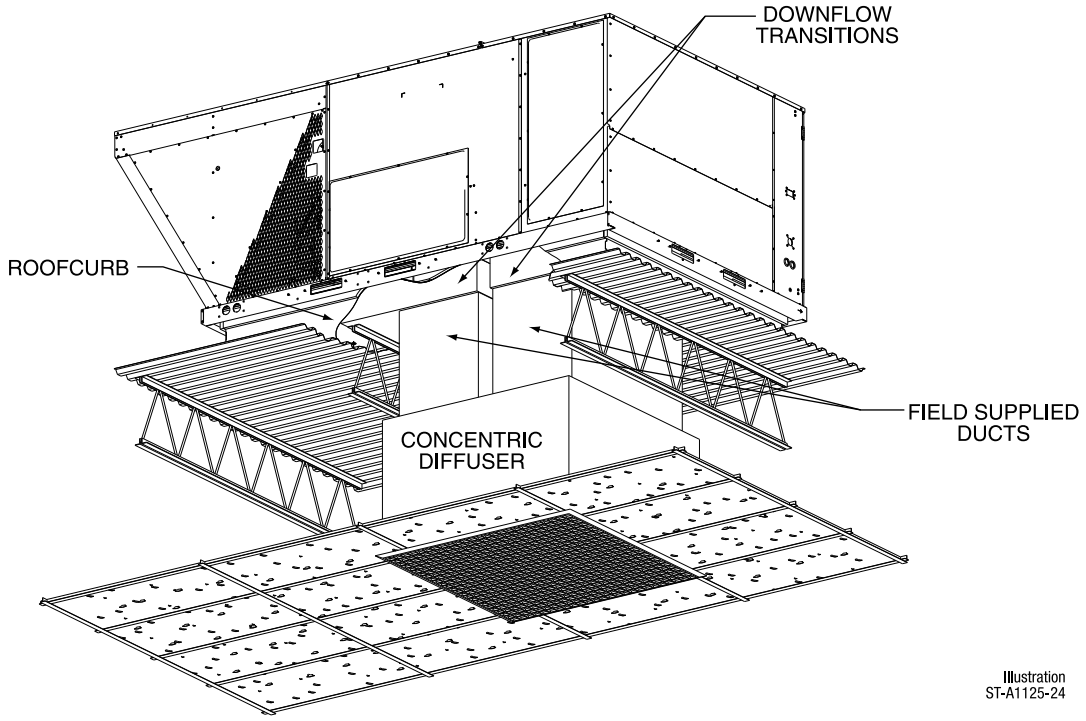


Illustration
ST-A1125-24

DOWNFLOW TRANSITION DRAWINGS

RXMC-CJ07 - Concentric Adapter/Transition (15 & 17.5 ton)

- Used with RXRN-AD80 and RXRN-AD81 Concentric Diffusers

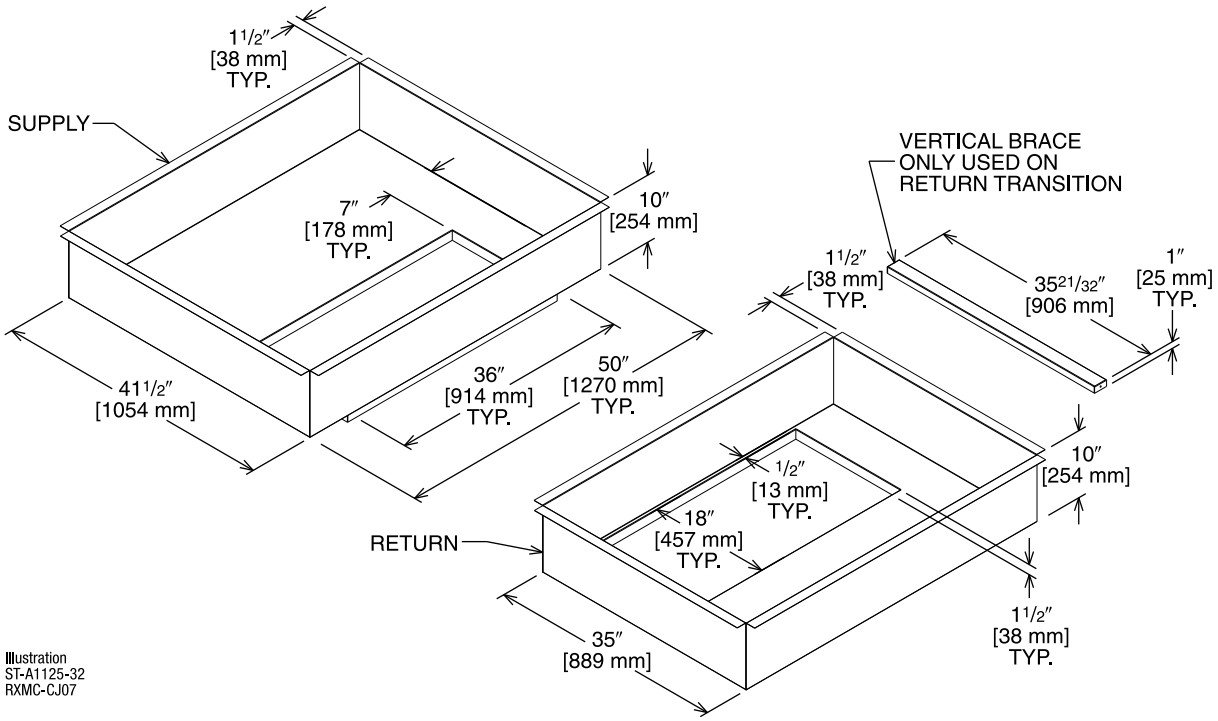


Illustration
ST-A1125-32
RXMC-CJ07

[ ] Designates Metric Conversions

DOWNFLOW TRANSITION DRAWINGS (CONTINUED)

RXMC-CK08 - Concentric Adapter/Transition (20 ton)

- Used with RXRN-AD86 Concentric Diffusers

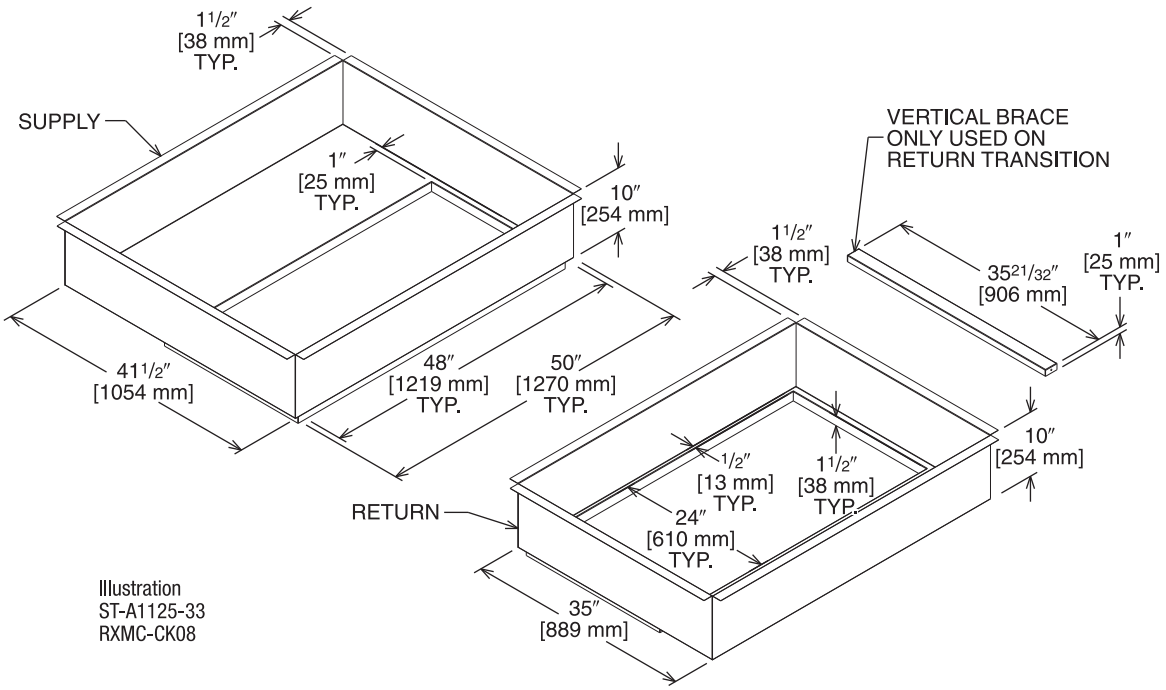


Illustration
ST-A1125-33
RXMC-CK08

RXMC-CL09 - Concentric Adapter/Transition (25 ton)

- Used with RXRN-AD88 Concentric Diffusers

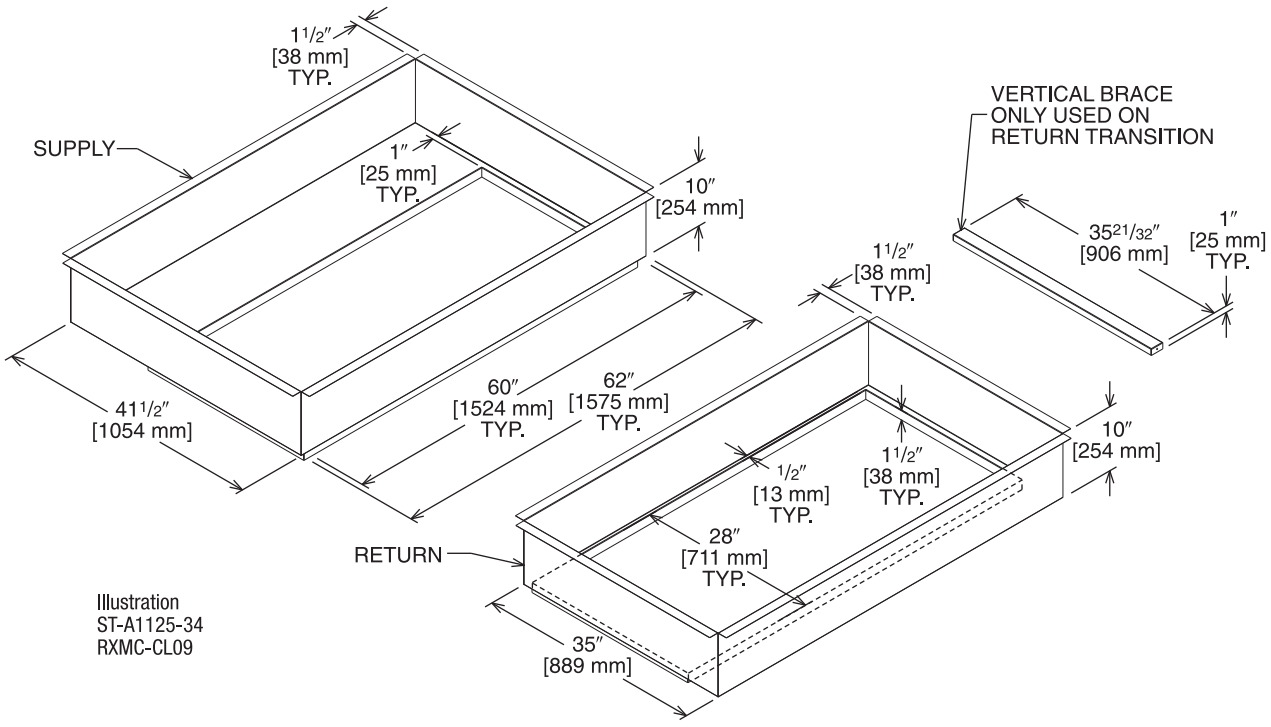


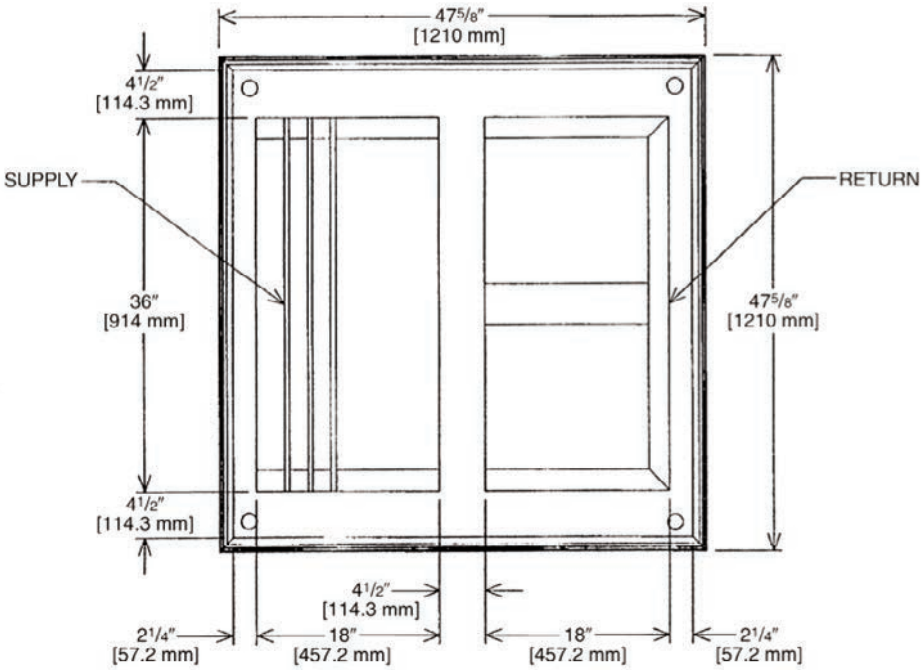
Illustration
ST-A1125-34
RXMC-CL09

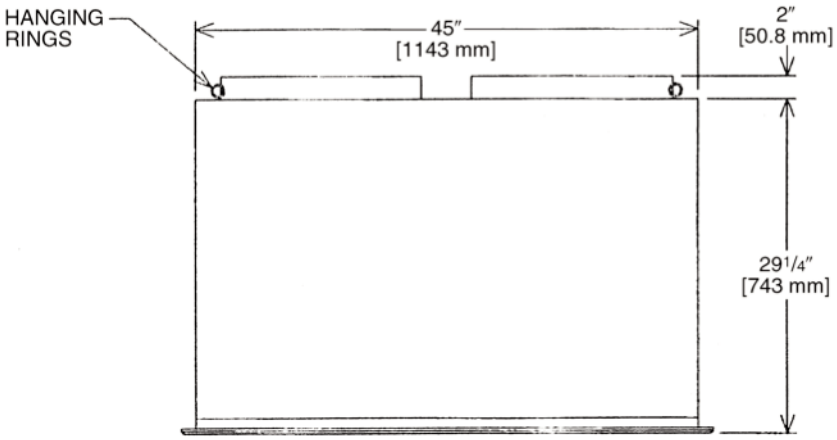
[ ] Designates Metric Conversions

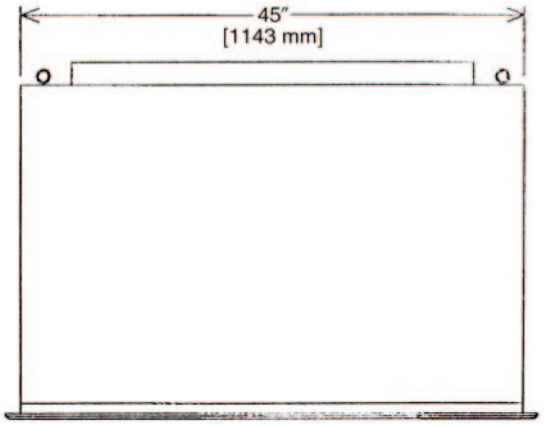
CONCENTRIC FLUSH MOUNT DIFFUSER (15 & 17.5 TON)

RXRN-AD80

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







CONCENTRIC DIFFUSER SPECIFICATIONS

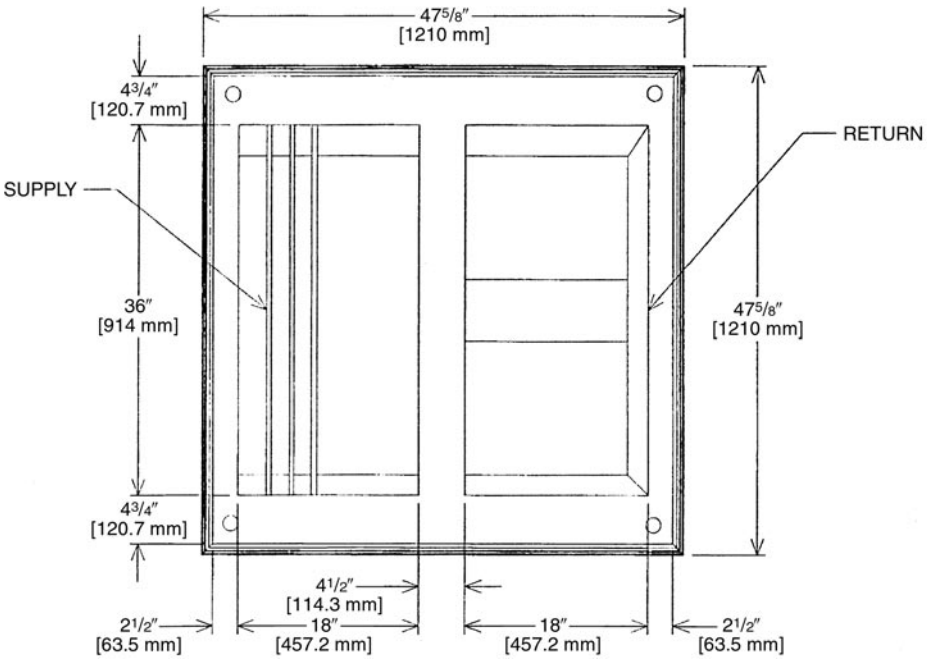
PART NUMBER	CFM [L/s]	STATIC PRESSURE	THROW FEET	NECK VELOCITY	JET VELOCITY
RXRN-AD80	5600 [2643]	0.36	28-37	1000	2082
	5800 [2737]	0.39	29-38	1036	2156
	6000 [2832]	0.42	40-50	1071	2230
	6200 [2926]	0.46	42-51	1107	2308
	6400 [3020]	0.50	43-52	1143	2379
	6600 [3115]	0.54	45-56	1179	2454

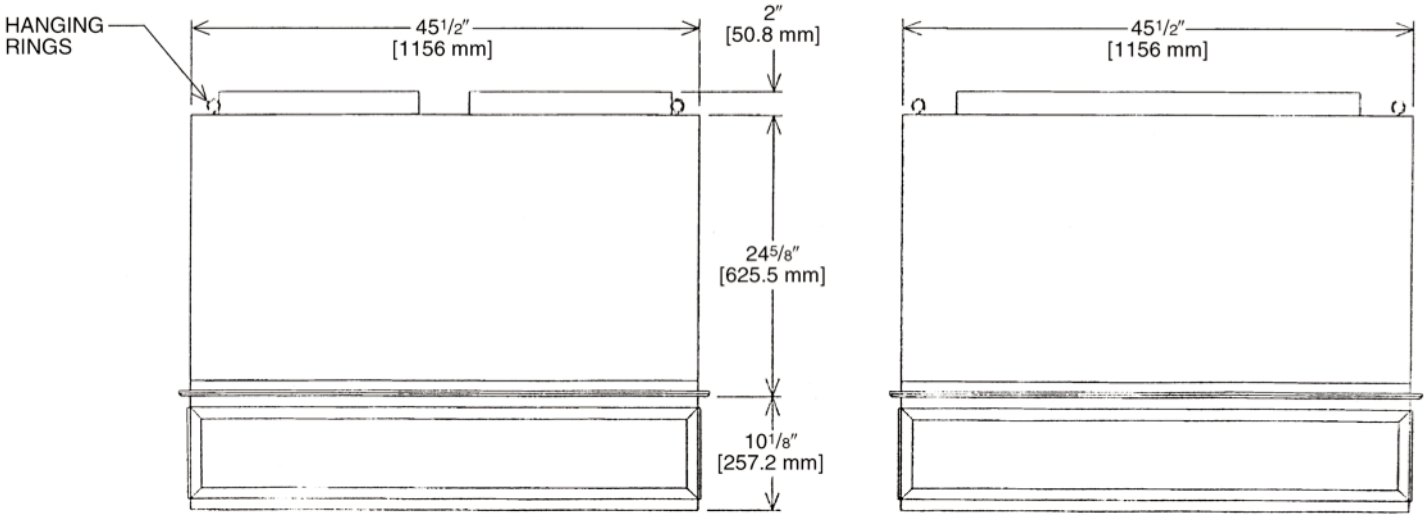
[ ] Designates Metric Conversions

CONCENTRIC STEP DOWN DIFFUSER (15 & 17.5 TON)

RXRN-AD81

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





CONCENTRIC DIFFUSER SPECIFICATIONS

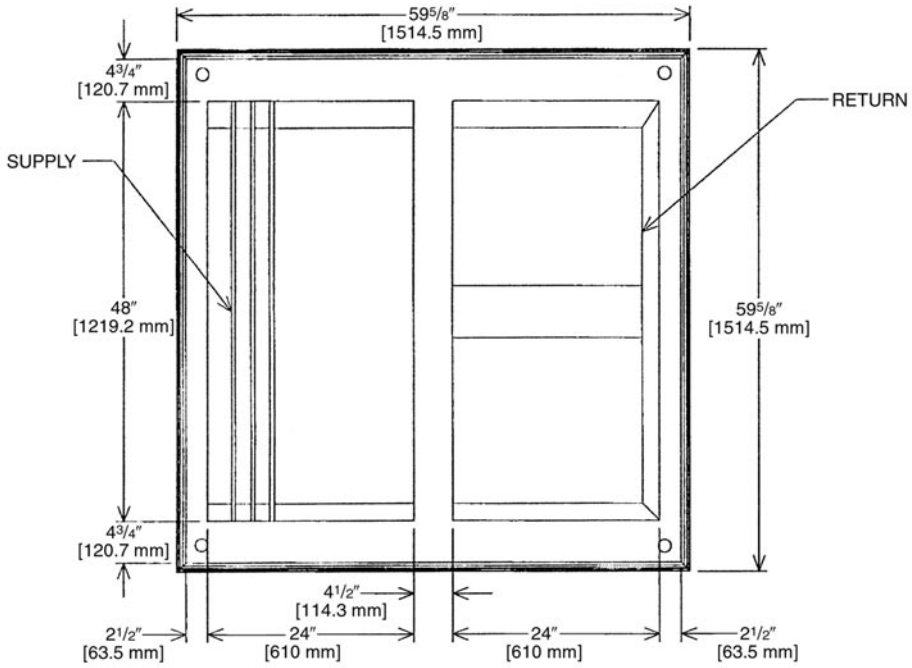
PART NUMBER	CFM [L/s]	STATIC PRESSURE	THROW FEET	NECK VELOCITY	JET VELOCITY
RXRN-AD81	5600 [2643]	0.36	39-49	920	920
	5800 [2737]	0.39	42-51	954	954
	6000 [2832]	0.42	44-54	1022	1022
	6200 [2926]	0.46	45-55	1056	1056
	6400 [3020]	0.50	46-55	1090	1090
	6600 [3115]	0.54	47-56	1124	1124

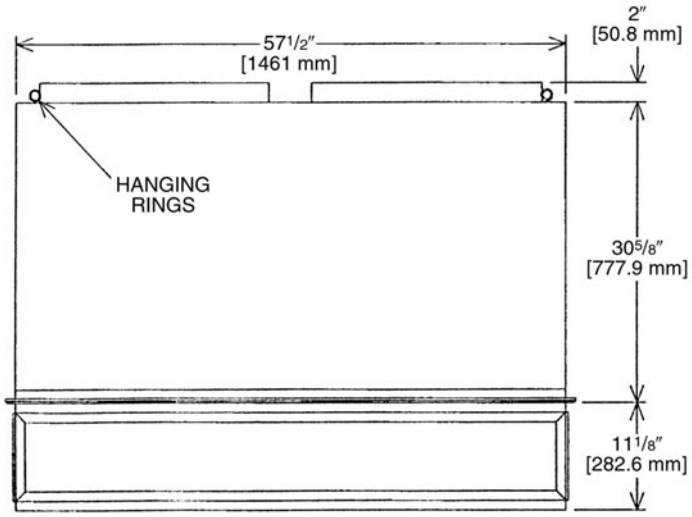
[ ] Designates Metric Conversions

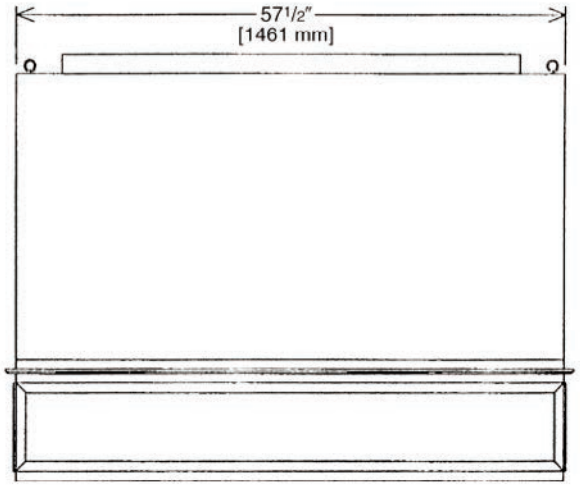
CONCENTRIC STEP DOWN DIFFUSER (20 TON)

RXRN-AD86

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







CONCENTRIC DIFFUSER SPECIFICATIONS

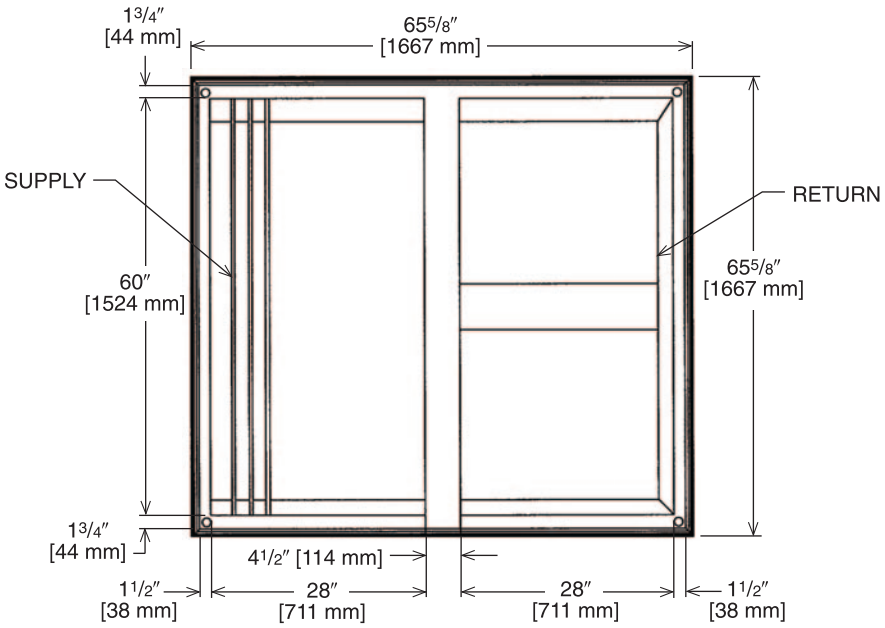
PART NUMBER	CFM [L/s]	STATIC PRESSURE	THROW FEET	NECK VELOCITY	JET VELOCITY
RXRN-AD86	7200 [3398]	0.39	33-38	827	827
	7400 [3492]	0.41	35-40	850	850
	7600 [3587]	0.43	36-41	873	873
	7800 [3681]	0.47	38-43	896	896
	8000 [3776]	0.50	39-44	918	918
	8200 [3870]	0.53	41-46	941	941
	8400 [3964]	0.56	43-49	964	964
	8600 [4059]	0.59	44-50	987	987
	8800 [4153]	0.63	47-55	1010	1010

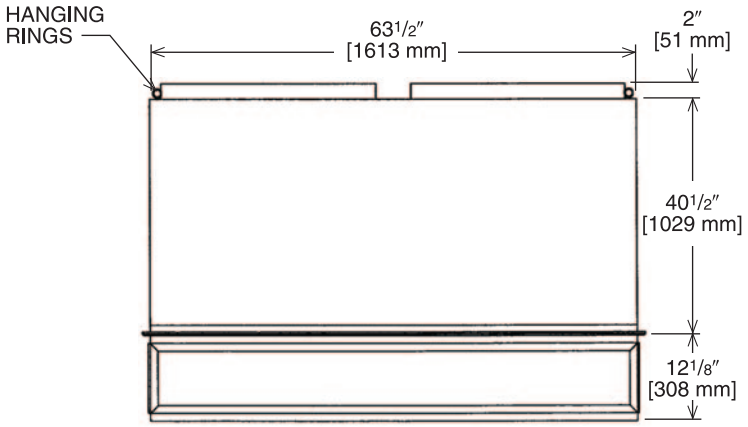
[ ] Designates Metric Conversions

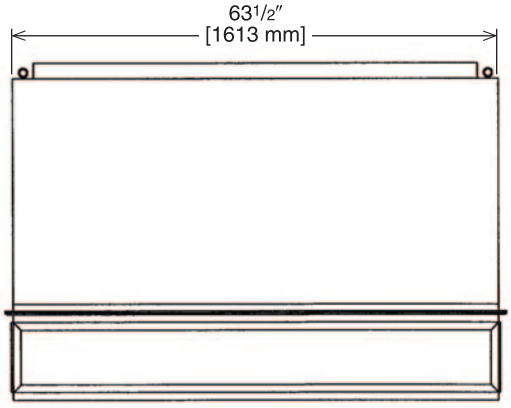
CONCENTRIC STEP DOWN DIFFUSER (25 TON)

RXRN-AD88

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







CONCENTRIC DIFFUSER SPECIFICATIONS

PART NUMBER	CFM [L/s]	STATIC PRESSURE	THROW FEET	NECK VELOCITY	JET VELOCITY
RXRN-AD88	10000 [4719]	0.51	46-54	907	907
	10500 [4955]	0.58	50-58	953	953
	11000 [5191]	0.65	53-61	998	998
	11500 [5427]	0.73	55-64	1043	1043
	12000 [5663]	0.82	58-67	1089	1089
	12500 [5898]	0.91	61-71	1134	1134
	13000 [6134]	1.00	64-74	1179	1179

[ ] Designates Metric Conversions

DDC ECONOMIZER WITH SINGLE ENTHALPY (DOWNFLOW) RUSKIN ROOFTOP SYSTEMS ECONOMIZER WITH HONEYWELL JADE CONTROLLER

Factory or Field-Installed

AXRD-01RMDCM3
RXRX-AV04—Dual Enthalpy, Temperature and Humidity Sensor (for Honeywell DDC)
RXRX-AR02—Sensor, Carbon Dioxide (Wall Mount)

- Features **Honeywell** 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
- CO_2 Input Sensor Available
- 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 Available

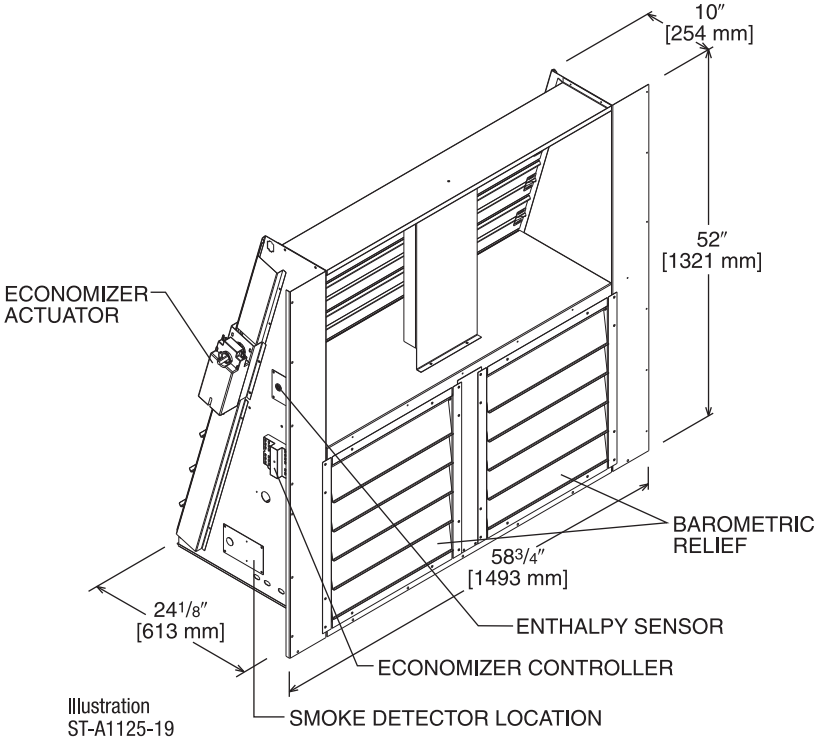


Illustration
ST-A1125-19

TOLERANCE ± .125

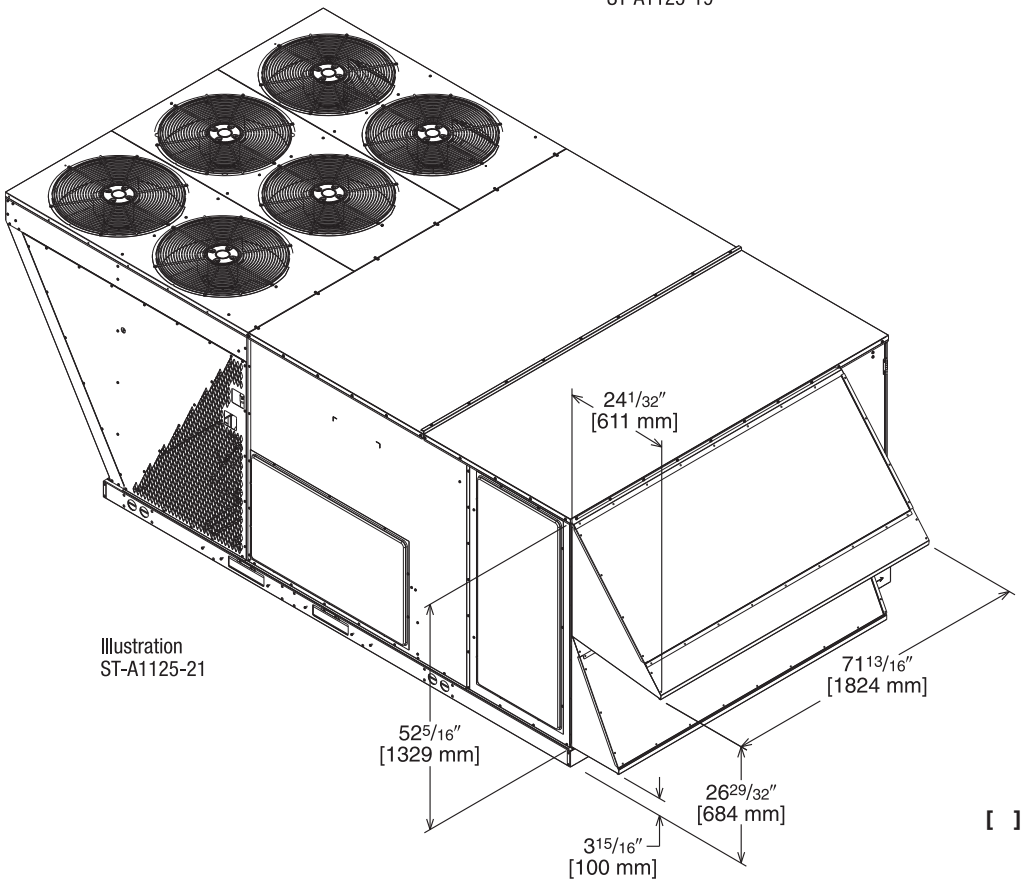


Illustration
ST-A1125-21

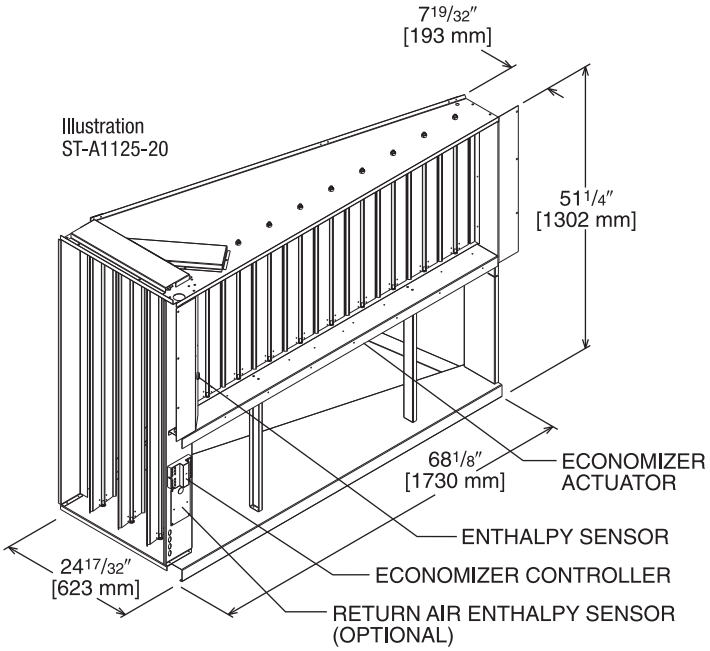
[ ] Designates Metric Conversions

DDC ECONOMIZER WITH SINGLE ENTHALPY (DOWNFLOW) RUSKIN ROOFTOP SYSTEMS ECONOMIZER WITH HONEYWELL CONTROLLER & SMOKE DETECTOR

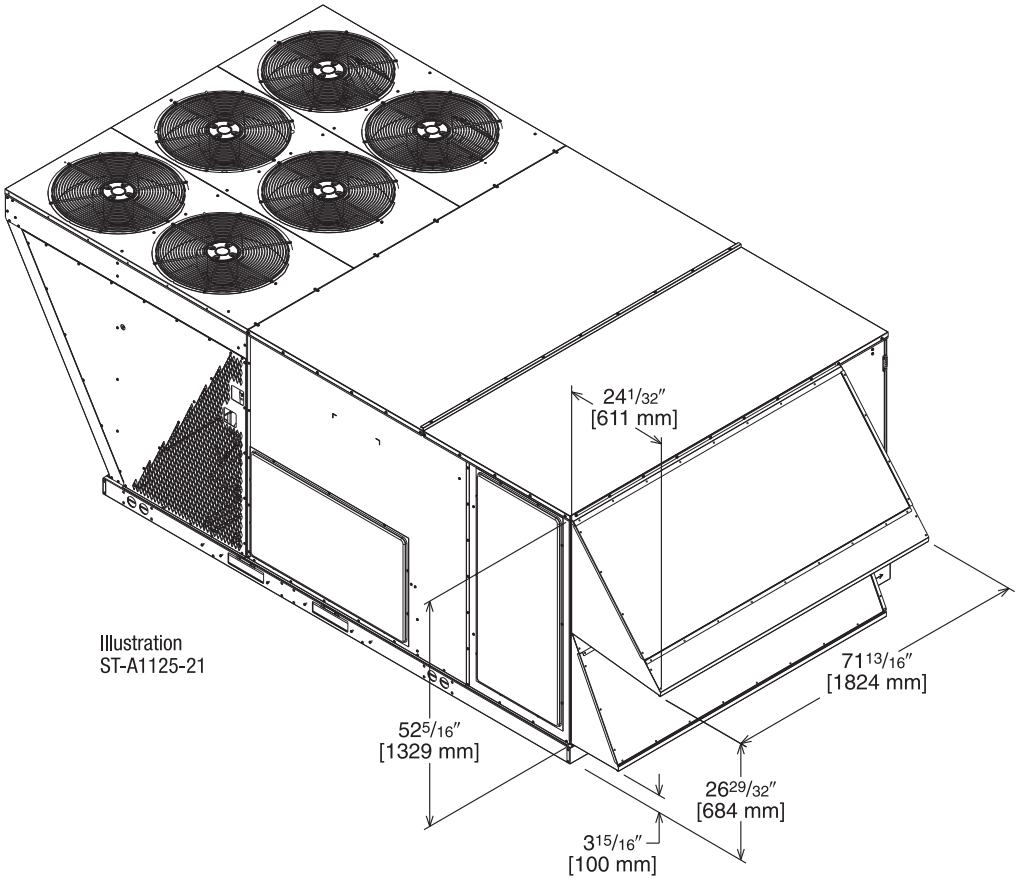
Factory or Field-Installed

AXRD-01RMDDM3
RXRX-AV04—Dual Enthalpy, Temperature and Humidity Sensor (for Honeywell DDC)
RXRX-AR02—Sensor, Carbon Dioxide (Wall Mount)

- 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
- Standard Barometric Relief Damper
- Single Enthalpy with Dual Enthalpy Upgrade Kit Available
- CO_2 Input Sensor Available
- 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 Available
- 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 Character LCD Screen



TOLERANCE ± .125



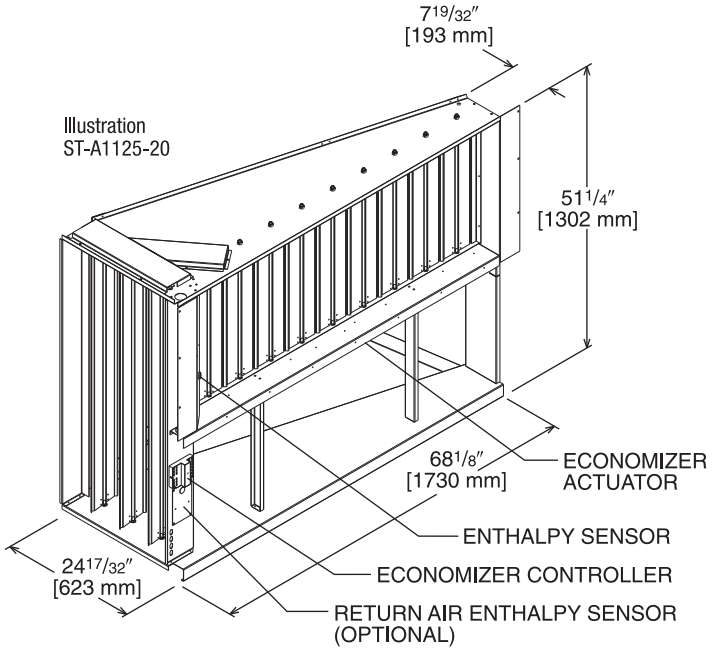
[ ] Designates Metric Conversions

DDC ECONOMIZER (HORIZONTAL) RUSKIN ROOFTOP SYSTEMS ECONOMIZER WITH HONEYWELL CONTROLLER

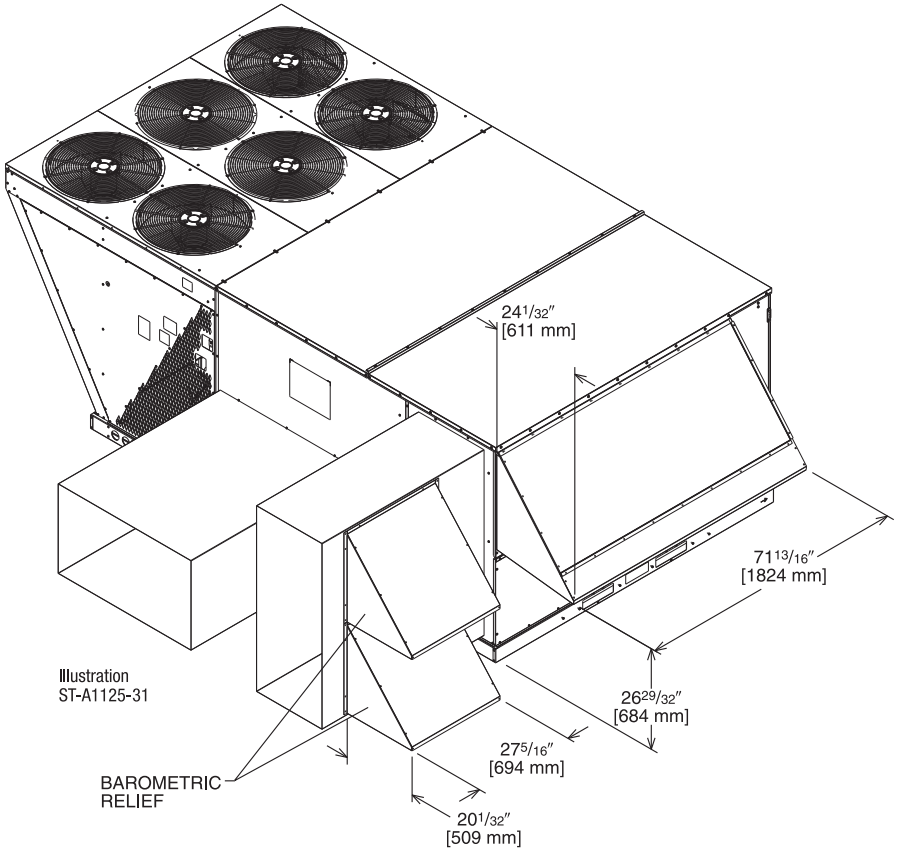
Field-Installed Only

AXRD-01RMHCM3
RXRX-AV04—Dual Enthalpy, Temperature and Humidity Sensor (for Honeywell DDC)
RXRX-AR02—Sensor, Carbon Dioxide (Wall Mount)

- Features **Honeywell** Controls
- Gear Driven Direct Drive Actuator
- 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
- Standard Barometric Relief Damper
- Single Enthalpy with Dual Enthalpy Upgrade Kit Available
- CO_2 Input Sensor Available
- 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 Available



TOLERANCE ± .125



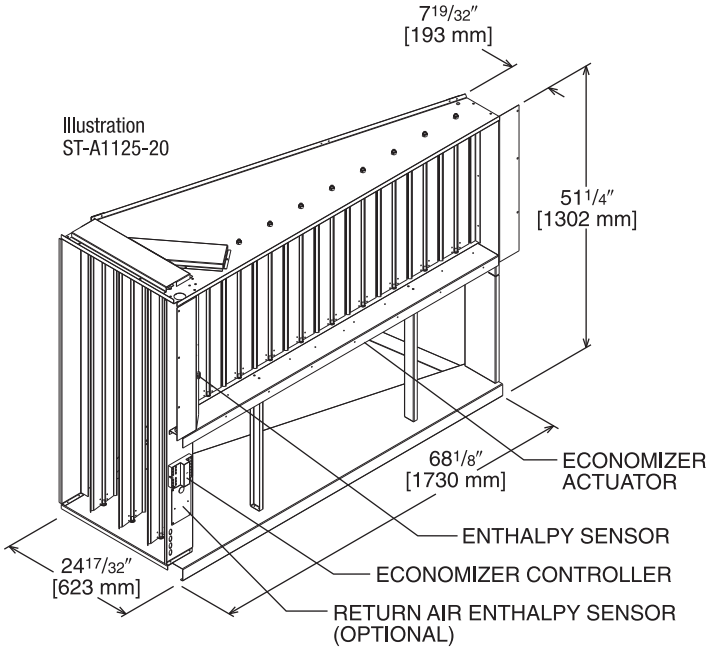
[ ] Designates Metric Conversions

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

Factory or Field-Installed

RXRD-51MHDAM3
PD555460-Dual Enthalpy, Temperature and Humidity Sensor (for Siemens Non-DDC)
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
- Plug-In Polarized 12-pin and 4-pin Electrical Connections
- Pre-Configured—No Field Adjustments Necessary
- Standard Barometric Relief Damper
- Single Enthalpy with Dual Enthalpy Upgrade Kit Available
- CO_2 Input Sensor Available
- Economizer Ships Complete for Downflow Duct Application
- Field Assembled Hood Ships with Economizer
- Ultra Low Leak Dampers meet California Title 24 requirements and ASHRAE 90.1 2022
- Field-Installed Power Exhaust Available
- Can be Converted to DDC Operation with the Economizer Universal DDC Interface Kit (RXRX-DDC02)



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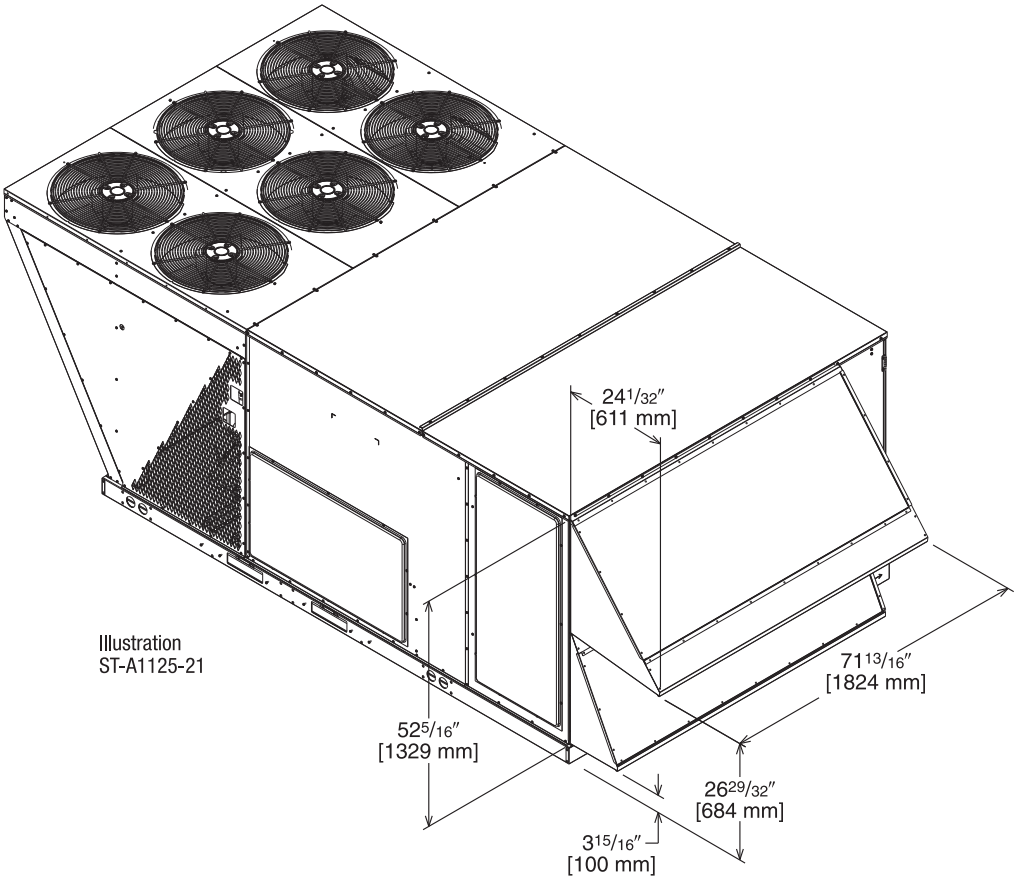


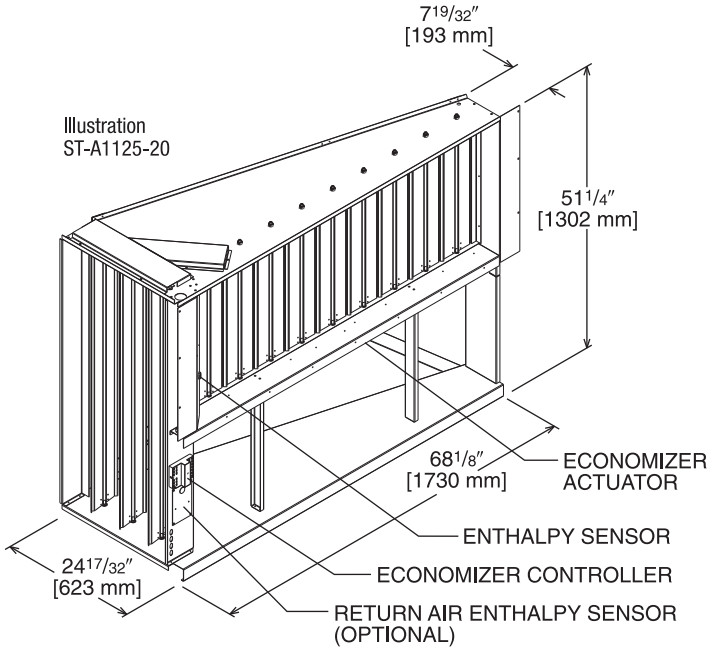
[ ] Designates Metric Conversions

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

Field-Installed Only

RXRD-51MHHAM3
PD555460-Dual Enthalpy, Temperature and Humidity Sensor (for Siemens Non-DDC)
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
- Plug-In Polarized 12-pin and 4-pin Electrical Connections
- Pre-Configured—No Field Adjustments Necessary
- Standard Barometric Relief Damper
- Single Enthalpy with Dual Enthalpy Upgrade Kit Available
- CO_2 Input Sensor Available
- Field Assembled Hood Ships with Economizer
- Economizer Ships Complete for Horizontal Duct Application
- Ultra Low Leak Dampers meet California Title 24 requirements and ASHRAE 90.1 2022
- Field-Installed Power Exhaust Available
- Can be Converted to DDC Operation with the Economizer Universal DDC Interface Kit (RXRX-DDC02)



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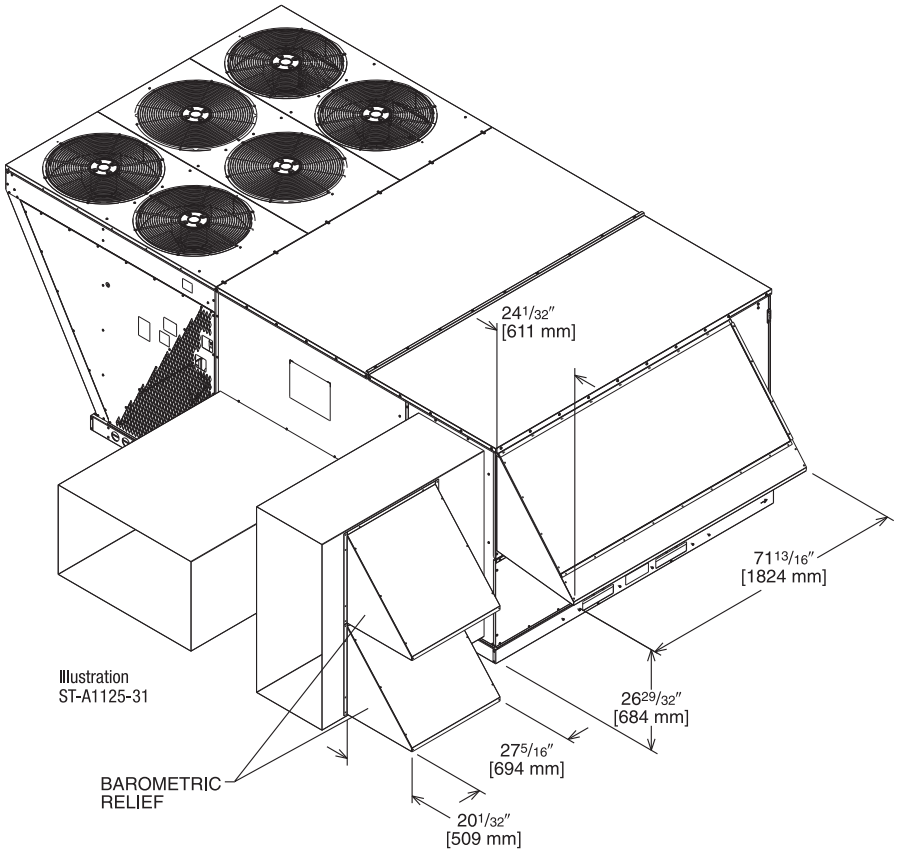


[ ] Designates Metric Conversions

ECONOMIZER UNIVERSAL DDC INTERFACE KIT

Available Factory or Field-Installed

RXRX-DDC02

- 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. Models with R-454B refrigerant will come with software version 4.0 or higher.

FRESH AIR DAMPER

Fresh Air Damper, Manual
AXRF-KFA1

Fresh Air Damper, Motorized (DDC)
RXRX-AW05

- 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
- CO_2 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), 16 characters x 2 rows of text LCD Screen
- If Connected to Thermostat, all Fresh Air Damper Functions can be Viewed on 16 characters x 2 rows of text LCD Screen

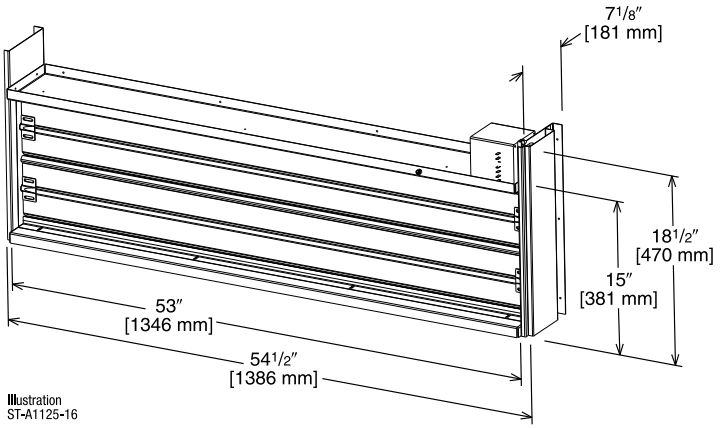


Illustration
ST-A1125-16

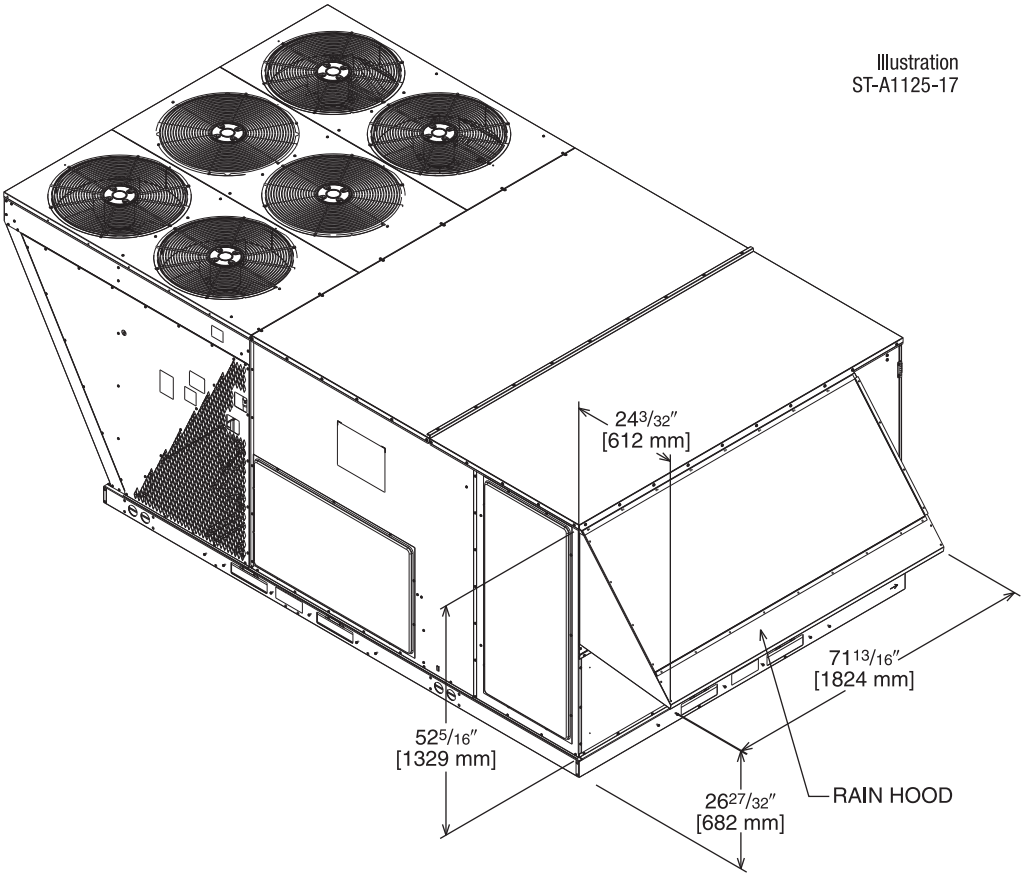


Illustration
ST-A1125-17

[ ] Designates Metric Conversions

POWER EXHAUST KIT, CONVERTIBLE

RXRX-BGF05*

***Voltage Code: C or D**

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

NOTE: Vertical Airflow Installation shown

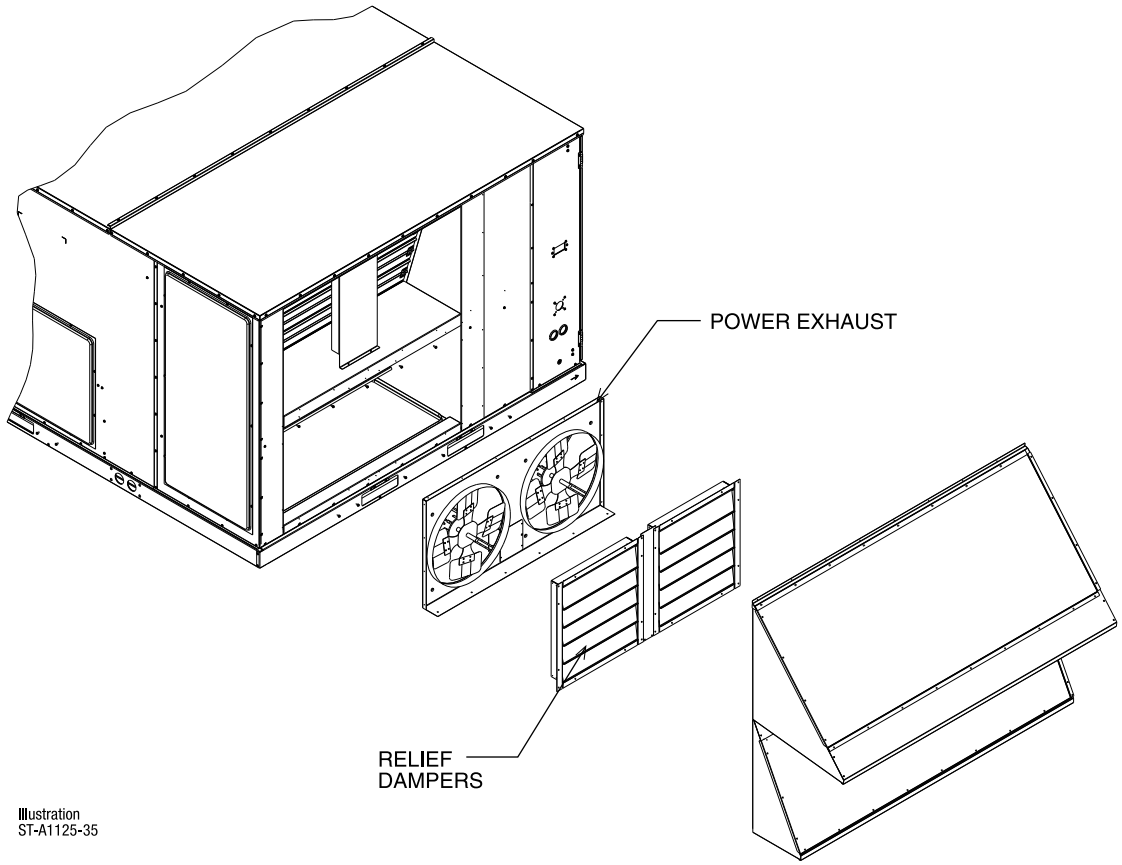


Illustration
ST-A1125-35

Model No.	No. of Fans	Volts	Phase	HP (ea.)	Low Speed		High Speed①		FLA (ea.)	LRA (ea.)
					CFM [L/s]②	RPM	CFM [L/s]②	RPM		
RXRX-BGF05C	2	208-230	1	0.75	4100 [1935]	850	5200 [2454]	1050	5	4.97
RXRX-BGF05D	2	460	1	0.75	4100 [1935]	850	5200 [2454]	1050	2.2	3.4

NOTES: ① Power exhaust is factory set on high speed motor tap.
② CFM is per fan at 0" w.c. external static pressure.

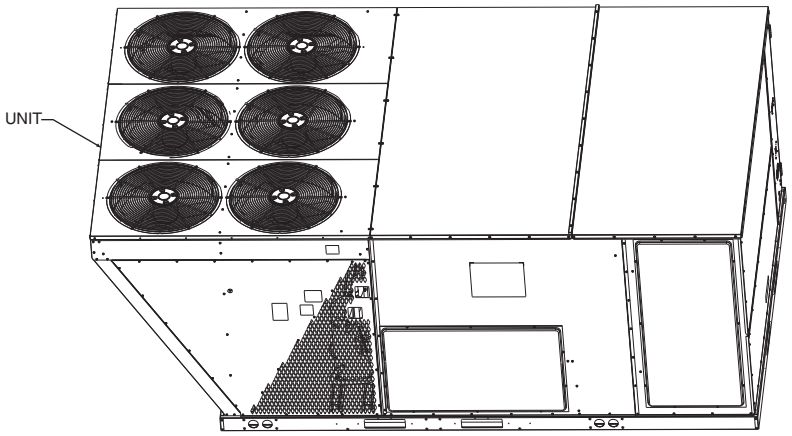
[ ] Designates Metric Conversions

ROOFCURBS (Full Perimeter)

RXKG-CBH14

- Rheem's roofcurb design can be utilized on 15, 17.5, 20, & 25 ton [52.8, 61.5, 70.3 & 87.9 kW] Resolute models
- One available height (14" [356 mm])
- Quick assembly corners for simple and fast assembly
- 1" [25.4 mm] x 4" [102 mm] Nailer provided
- Insulating panels not required because of insulated outdoor base pan
- Sealing gasket (28" [711 mm]) provided with Roofcurb
- Packaged for easy field assembly

TYPICAL INSTALLATION



ROOFCURB ASSEMBLY

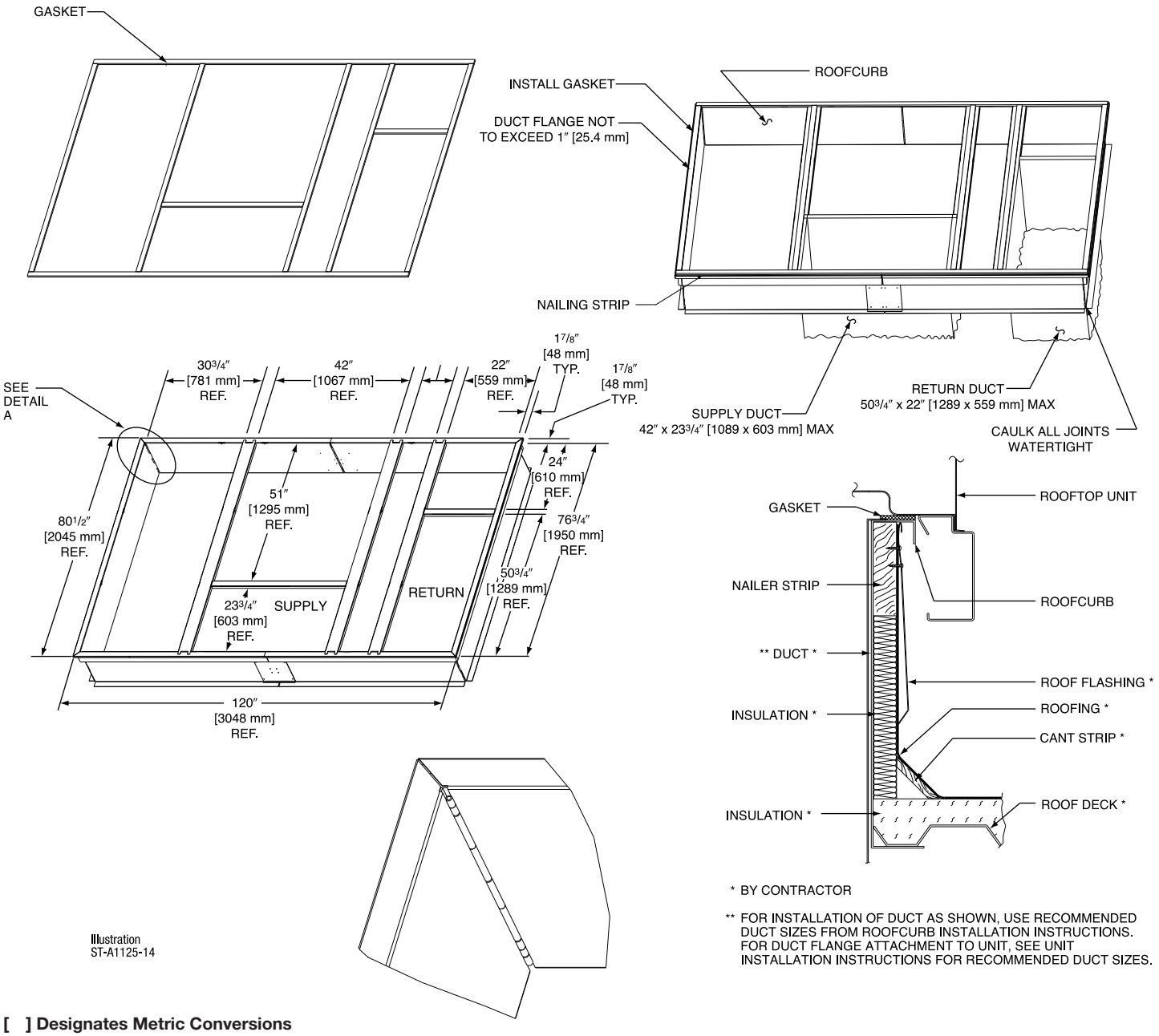


Illustration ST-A1125-14

DETAIL A

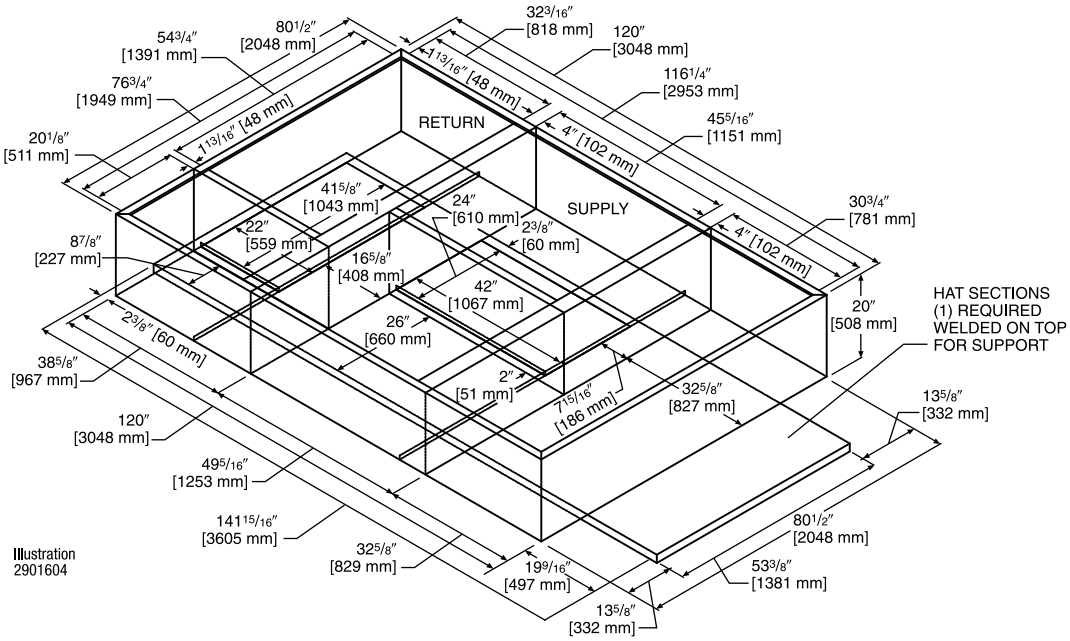
* BY CONTRACTOR

** 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.

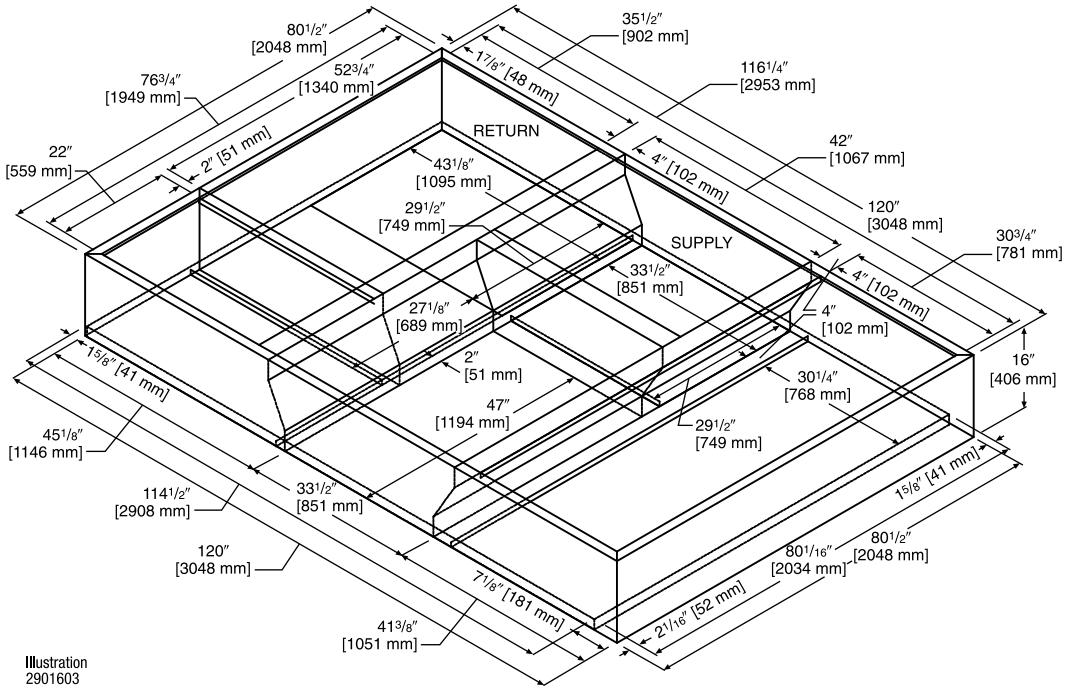
[ ] Designates Metric Conversions

ROOFCURB ADAPTERS

COMMERCIAL CABINET (15, 20 & 25 TON) ([52.8, 70.3 & 87.9 kW])
(-)LKB, LMB, LNB → RXKG-CAF14 → RXRX-CJCF14 → RACH (15, 17.5, 20, & 25 TON) [52.8, 61.5, 70.3 & 87.9 kW]



OLD MODELS	OLD CURB MODEL	ROOFCURB ADAPTER	NEW MODEL
COMMERCIAL CABINET (12.5, 15 & 20 TON) ([44, 52.8 & 70.3 kW]) (-)RCF, (-)RGF, (-)REF	RXRK-E56	RXRX-CJCE56	RACH (15, 17.5, 20, & 25 TON) [52.8, 61.5, 70.3 & 87.9 kW]



[ ] Designates Metric Conversions

Guide Specifications – RACH – 180 – 300

You may copy this document directly into your building specification. This specification is written to comply with the 2004 version of the "master format" as published by the Construction Specification Institute. www.csinet.org.

ELECTRIC HEAT PACKAGED ROOFTOP

HVAC Guide Specifications

Size Range: 15 to 25 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 500-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. 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 and shall be coated with a baked enamel finish on all externally exposed surfaces.

B. Unit cabinet exterior paint shall be: pre-painted steel with film thickness, (dry) 0.003 inches minimum, gloss (per ASTM D523, 60ºF): 60, Hardness: H-2H Pencil hardness.

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 340/360 minimum exterior sweat criteria. Interior surfaces shall be insulated with a minimum 3/4-in. thick, 1 lb density, flexible fiberglass insulation, foil faced on the air side.

E. Shall utilize uniform screw sizing.

F. Base of unit shall have a location for thru-the-base electrical connections standard.

G. Base Rail:

i. Unit shall have base rails on all 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 1" – 11 1/2 NPT drain connection through either 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. Top panel:
i. Shall be a two piece top panel over indoor section; with one covering the blower, and the other covering the controls and supply/return duct openings.

J. Electrical Connections:
i. All unit power wiring shall enter unit cabinet at a single, factory-prepared, knockout location.
ii. Thru-the-base capability:
a. Standard unit shall have a thru-the-base electrical location(s) using a raised, embossed portion of the unit basepan.
b. No basepan penetration, other than those authorized by the manufacturer, is permitted.

K. Component access panels (standard):
i. Cabinet panels shall be easily opened for servicing.
ii. Stainless steel metal hinges are standard on all doors.
iii. Panels covering control box, indoor fan, indoor fan motor, and electric or gas heater components (where applicable), shall have 1/4 turn latches.
iv. 1/4 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 40°F (4°C), ambient outdoor temperatures. Low ambient accessory kit is necessary if mechanically cooling at ambient temperatures to 40°F (4°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 3/4-in. thick, minimum 1 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 "G" when calling for heat.
ii. Have capability to energize 2 different stages of cooling, and 2 different stages of heating.
iii. Must 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 (180-300 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:
   i. Provides active protection in cooling mode at all outdoor ambient temperatures. The low pressure control is an automatic reset type and opens at approximately 95 psig and closes at approximately 50 psig.

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 is standard on all models except 25 ton G-drive models.

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. Shall consist of factory-installed, low velocity, throwaway 2-in. thick fiberglass filters of commercially available sizes.

B. Unit will accept only 2 inch 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 shall be held in place by a sliding filter tray, facilitating easy removal and installation.

F. Filters access is specified in the unit cabinet section of this specification.

1.12 Coils:

A. Standard Aluminum/MicroChannel Condenser 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.

B. Standard Aluminum/Copper Evaporator Coils.
   i. Standard evaporator and condenser coils shall have aluminum lanced plate fins mechanically bonded to seamless internally grooved copper tubes with all joints brazed.
   ii. Evaporator and Condenser coils shall be leak tested to 150 psig, pressure tested to 550 psig and qualified to UL 1995 burst test at 2,200 psig.

1.13 Refrigerant Components:

A. Refrigerant circuit shall include the following control, safety, and maintenance features:
   i. Thermal Expansion Valve (TXV) with orifice type distributor.
   ii. Refrigerant filter drier.
   iii. External service gauge connections to unit suction and discharge lines.
   iv. Pressure gauge access through an access port in the front and rear panel of the unit.
   v. External gauge ports shall be lockable.

B. Compressors:
   i. Unit shall use one fully hermetic, scroll compressor for each independent refrigeration circuit.
   ii. Compressor motors shall be cooled by refrigerant gas passing through motor windings.
   iii. Compressors shall be internally protected from high discharge temperature conditions. Advanced Scroll Temperature Protection on 240-300 sizes.
   iv. Compressors shall be protected from an over-temperature and over-amperage conditions by an internal, motor overload device.
   v. Compressor shall be factory mounted on rubber grommets.
   vi. Compressor motors shall have internal line break thermal and current overload protection.
   vii. Crankcase heaters shall not be required for normal operating range.
   viii. Shall have screw terminals.

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 shall:
   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 -40ºF (-40ºC) to 158ºF (70ºC), 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 CO_2 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 -40ºF (-40ºC) to 130ºF (54ºC), 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, gear-driven 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 with metal gears. 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 enthalpy equivalent of 63°F @ 50% RH to 73°F @ 50% RH. 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 CO_2 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. Compressor lockout sensor on the unit controller is factory set at 35°F and is adjustable from 30ºF (-1ºC) to 50ºF (10ºC) and resets the cooling lockout at 5°F (+2.7°C) above the set point.

xvi. Actuator shall be direct coupled to economizer gear. No linkage arms or control rods shall be acceptable.

xvii. Economizer controller shall provide indications when in free cooling mode, in the DCV mode, or the exhaust fan contact is closed.

xviii. Economizer wire harness will have provision for smoke detector.

xix. Shall provide fault detection and diagnostics (FDD) system in accordance with local code. Faults shall be communicated out on an alarm signal.

B. Two-Position Motorized Damper:

i. Damper shall be a Two-Position Motorized Damper. Damper travel shall be from the full closed position to the field adjustable %-open setpoint.

ii. Damper shall include adjustable damper travel from 25% to 100% (full open).

iii. Damper shall include single or dual blade, gear driven dampers and actuator motor.

iv. Actuator shall be direct coupled to damper gear. No linkage arms or control rods shall be acceptable.
v. Damper will admit up to 100% outdoor air for applicable rooftop units.
vi. Damper shall close upon indoor (evaporator) fan shutoff and/or loss of power.
vii. The damper actuator shall plug into the rooftop unit's wiring harness plug. No hard wiring shall be required.
viii. Outside air hood shall include aluminum water entrainment filter

C. 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.

D. Head Pressure Control Package
   i. Controller shall control coil head pressure by condenser-fan cycling.

E. Condenser Coil Hail Guard Assembly:
   i. Shall protect against damage from hail.
   ii. Shall be louvered style.

F. Fan/Filter Status Switch:
   i. Switch shall provide status of indoor evaporator fan (ON/OFF) or filter (CLEAN/DIRTY).
   ii. Status shall be displayed either over communication bus (when used with direct digital controls) or through the controller LCD display inside the unit control box.

G. 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.

H. 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.

I. Roof Curbs (Vertical):
   i. Full perimeter roof curb with exhaust capability providing separate air streams for energy recovery from the exhaust air without supply air contamination.
   ii. Formed galvanized steel with wood nailer strip and shall be capable of supporting entire unit weight.
   iii. Permits installation and securing of ductwork to curb prior to mounting unit on the curb.

J. High-Static Indoor Fan Motor(s) and Drive(s):
   i. High-static motor(s) and drive(s) shall be factory-installed to provide additional performance range.

K. Outdoor Air Enthalpy Sensor
   i. The outdoor air enthalpy sensor shall be used to provide single enthalpy control. When used in conjunction with a return air enthalpy sensor, the unit will provide differential enthalpy control. The sensor allows the unit to determine if outside air is suitable for free cooling.

L. Return Air Enthalpy Sensor
   i. The return air enthalpy sensor shall be used in conjunction with an outdoor air enthalpy sensor to provide differential enthalpy control.

M. Indoor Air Quality (CO_2) 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.

N. Smoke detectors:
    i. Shall be a Four-Wire Controller and Detector.
    ii. Shall be environmentally compensated with differential sensing for reliable, stable, and drift-free sensitivity.
    iii. Shall use magnet-activated test/reset sensor switches.
    iv. Shall have a recessed momentary switch for testing and resetting the detector.
    v. 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.
O. Barometric relief:
    i. Shall include damper, seals, hard-ware, and hoods to relieve excess building pressure.
    ii. Damper shall gravity-close upon shutdown.
    iii. Only available with an economizer. Barometric relief is not available as a stand-alone accessory.
P. 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.
    iii. Standard Factory-Installed Overflow Switch
    iv. Switch shall monitor the condensate level in drain pan and stops compression operation when overflow conditions occur
Q. Access Panels:
    i. Hinges with ¼ turn fasteners shall be permanently attached.
    ii. Hinges shall be powder coated and made from stainless steel.
R. Electric Heat
    i. Heating Section:
        a. Heater element open coil resistance wire, nickel-chrome alloy, strung through ceramic insulators mounted on metal frame. Coil ends are staked and welded to terminal screw slots.
        b. Heater assemblies are provided with integral fusing for protection of internal heater circuits not exceeding 48 amps each. Auto reset thermostat limit controls, magnetic heater contactors (24V coil) and terminal block all mounted in electric heater control box (minimum 18 gauge galvanized steel) attached to end of heater assembly.
S. Refrigerant Detection System:
    i. In the event of a detected refrigerant leak, the refrigerant leak detection sensor(s) will trigger the mitigation procedure that shuts off the compressor(s) and turns on the indoor blower motor.
    ii. In the event of a detected refrigerant leak, the system will display a fault code on the unitary controller. For DDC systems, 'A2L Event' will appear on the LCD module.

GENERAL TERMS OF LIMITED WARRANTY*

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

***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 Applications .....Five (5) Years
Parts
Commercial Applications .....One (1) Year

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

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