



The new degree of comfort.™



Air

Packaged Air Conditioners
RACC Series

Commercial Renaissance™ Line Packaged Air Conditioners



RACCZT Commercial *Classic Plus*® Series

Nominal Size 3, 4, 5 & 6 Tons

[10.6, 14.0, 17.6 & 21.1 kW]

ASHRAE 90.1 2019 Compliant Models

RACCZR Commercial *Classic*® Series

Nominal Size 3, 4, & 5 Tons

[10.6, 14.0 & 17.6 kW]

ASHRAE 90.1 2019 Compliant Models



INTEGRATED AIR & WATER

FORM NO. S11-984 REV. 7

TABLE OF CONTENTS

Unit Features & Benefits	3-10
Model Number Identification	11
Options	12
Selection Procedures	13
General Data.....	14-22
General Data Notes	14-22
Weighted Sound Power	23
Gross Systems Performance Data	24-36
Airflow Performance Data	37-44
Electrical Data.....	45-62
Dimensional Data	63-65
Field Installed Accessories	66-84
Guide Specifications	85-89
Limited Warranty	90



RACC STANDARD FEATURES INCLUDE:

- Factory charged with R-410A HFC refrigerant
- Wired and run tested
- Scroll compressors with internal line break overload and high pressure protection
- Convertible airflow – vertical down flow or horizontal side flow
- Forkable base rails for easy handling and lifting
- Cooling operation up to 125°F ambient
- MicroChannel evaporator and condenser coil
- PlusOne® ServiceSmart package includes:
 - Qwik-Change Flex-Fit Rack™
 - Qwik-Slide Blower Assembly™
 - Qwik-Clean Drain Pan™
- Overflow condensate sensor
- PlusOne® Diagnostics with Dual 7-Segment LED Display to meet code compliance
- One-piece top cover and base pan with drawn supply and return opening
- Two-piece control door
- ¼ turn fasteners on filter access door
- Color-coded and labeled wiring
- External lockable gauge ports
- TXV refrigerant metering system
- Solid-core liquid line filter drier
- High pressure and low pressure/loss of charge protection with built-in Smart Logic
- Insulation encapsulated throughout entire unit
- New product footprint with matching connections
- 3-6 Ton ZT models include one two-stage compressor
- 3-5 Ton ZR models include one single-stage compressor
- 6 Ton includes a single 2-Stage compressor
- 3-5 Ton includes one single-stage compressor
- MERV 8 & MERV 13 filters are available as an accessory
- Standard Modbus interface



FACTORY INSTALLED OPTIONS:

- Louvered panels
- Hinged access doors
- Low ambient/freeze stat
- Non-powered convenience outlet
- Economizer (Title 24 and ASHRAE 90.1 2019 compliant)
- Supply and return smoke detector

- Return smoke detector
- ElectroFin® E-Coat for Microchannel Condenser Coil Coating
- ClearControl™ Direct Digital Control (DDC)
- Comfort Alert Phase-monitor Protection
- Vertical Economizer

FIELD INSTALLED ACCESSORIES:

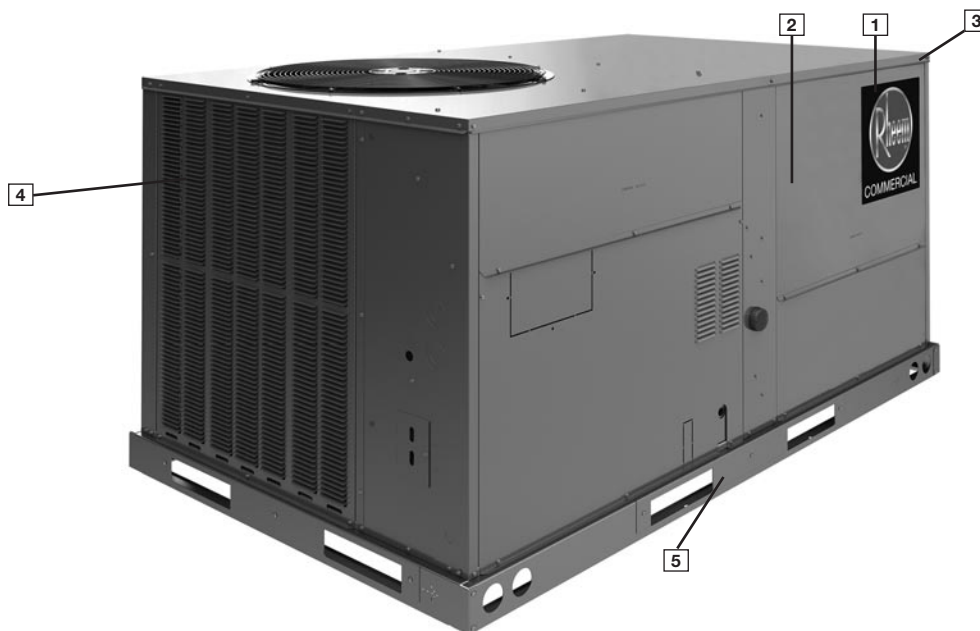
Accessory	Model Number	Factory Installation Available?
Economizer w/Single Enthalpy (Downflow/Vertical)	RXRD-01MCDAM3	Yes
Economizer w/Single Enthalpy (Horizontal)	RXRD-01MCHAM3	No
Economizer-w/Single Enthalpy (Downflow/Vertical) DDC	RXRD-01MCDBM3	Yes
Economizer w/Single Enthalpy (Horizontal) DDC	RXRD-01MCHBM3	No
Dual Enthalpy Kit	RXXR-BV01	No
Dual Enthalpy Kit DDC	RXXR-BV02	No
Power Exhaust (230V) Vertical	RXXR-CCF02C	No
Power Exhaust (460V) Vertical	RXXR-CCF02D	No
Power Exhaust (230V) Horizontal	RXXR-CCF03C	No
Power Exhaust (460V) Horizontal	RXXR-CCF03D	No
Manual Fresh Air Damper	RXRF-ACA1	No
Motorized Fresh Air Damper	RXRF-ACB1	No
Roofcurb, 14"	RXKG-DCC14	No
Roofcurb, 24"	RXKG-DCC24	No
Roofcurb Adapter	RXXR-DCCAE	No
Roofcurb, 14" Welded	RXKG-DC14	No
Roofcurb, 24" Welded	RXKG-DC24	No
Concentric Diffuser 3-4 Ton Flush	RXRN-AEF1800	No
Concentric Diffuser 5-6 Ton Flush	RXRN-AEF2000	No
Concentric Diffuser 3-4 Ton Drop	RXRN-AED1800	No
Concentric Diffuser 5-6 Ton Drop	RXRN-AED2000	No
Concentric Adapter 3-4 Ton Drop	RXMC-DC01	No
Concentric Adapter 5-6 Ton Drop	RXMC-DC02	No
Outdoor Coil Louver Kit	RXXR-ADD04C	Yes
Nonpowered Convenience Outlet	RXXR-BN01	Yes
Unfused Service Disconnect	RXXR-BP01	Yes
Comfort Alert (1 Phase) DDC	RXXR-AZ03	Yes
Comfort Alert (1 Phase) Non-DDC	RXXR-AZ04	Yes

Accessory	Model Number	Factory Installation Available?
Comfort Alert (3 Phase) DDC	RXXR-AZ01	Yes
Comfort Alert (3 Phase) Non-DDC	RXXR-AZ02	Yes
Carbon Dioxide Sensor (Wall Mount)	RXXR-AR02	No
BACnet Communication Card	RXXR-AY01	No
LonWorks Communication Card	RXXR-AY02	No
Room Humidity Sensor	RHC-ZNS4	No
Room Temperature and Relative Humidity	RHC-ZNS5	No
Low-Ambient Control Kit	RXRZ-A04	Yes
Freeze Stat Kit	RXXR-AM05	Yes
Return Smoke Detector (Field kit)	RXXR-BS01	No
Return/ Supply Smoke Detector (Field kit)	RXXR-BS02	No
Electric Heater Kits	RXJJ-DC10JT	Yes
	RXJJ-DC15JT	Yes
	RXJJ-DC20JT	Yes
	RXJJ-DC10CP	Yes
	RXJJ-DC15CP	Yes
	RXJJ-DC20CP	Yes
	RXJJ-DC24CP	Yes
	RXJJ-DC10DNV	Yes
	RXJJ-DC15DNV	Yes
	RXJJ-DC20DNV	Yes
Single Point Wiring Kits	RXJX-AJ0601 (Single Phase)	No
	RXJX-AZ0601 (Three Phase)	No
MERV 8 Filter	RXMF-M08A21616	No
MERV 13 Filter	RXMF-M13A21616	No
UV-C Light Kit for 208/230V	RXXR-UV22C	No
UV-C Transformer Kit for 460V or 575V	RXXR-UVCTC	No





Air

Unit Features & Benefits
RACC Series

Cabinet and Foundation

Outwardly, the large Rheem® Commercial Series label (1) identifies the brand to the customer. The sheet-metal cabinet (2) uses 18-gauge material for structural components with an underlying coat of G90. To ensure the leak-proof integrity of these units, the design utilizes a one-piece top with a 1/8" drip lip (3) as well as gasket-protected panels and screws. The Rheem hail guard (optional) (4) sets the standard for coil protection in the industry. Electro deposition, baked-on enamel that is tested to withstand a rigorous 1000-hour salt spray test, per ASTM B117.

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

Easy Installation

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

Base Pan

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



Drain Pan

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



Test Standards

During development, each unit was tested to U.L. 1995, AHRI 210/240 (3-5 ton) or AHRI 340/360 (6 ton), as well as other Rheem-required reliability tests. Rheem adheres to stringent ISO 9001 quality procedures, and each unit bears the U.L. and AHRI certification labels located on the unit nameplate. Contractors can be assured that when a Rheem packaged unit arrives at the job, it is ready to go with a factory charge and quality checks. Each unit also proudly displays the "Made in the USA" designation.

Easy Access

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

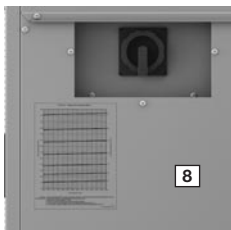


INTEGRATED AIR & WATER



Charging Charts, Wiring Diagrams, & Labels

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



Filter Rack

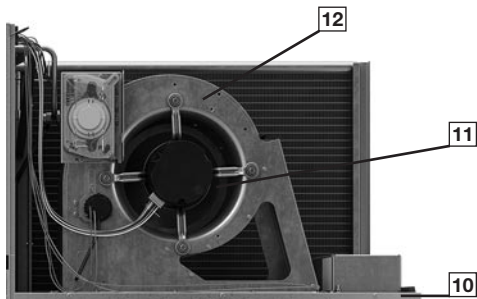
Located within the filter compartment, the Qwik-Change Flex-Fit Rack™ ([9]) allows easy changeover between 2" and 4" standard size and readily available filters.



Blower Assembly

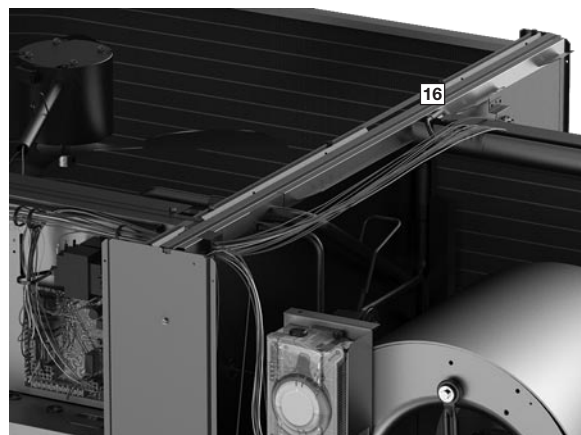
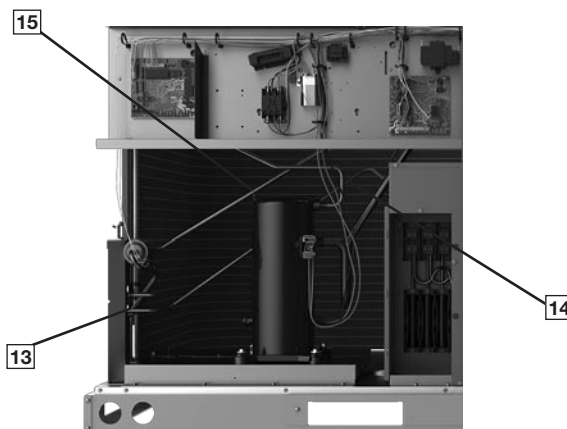
Removing three screws provides full access to the blower compartment. Inside, the Qwik-Slide Blower Assembly™ ([10]) is incredibly easy to access and remove. This makes servicing internal components such as blower motor, TXV, and microchannel coil much easier. The entire assembly slides out by removing the 3/8" screws from the blower retention bracket.

Where the demands for the job require high static, Rheem offers drives ([11]) that deliver nominal airflow up to 1.5" of static. By referring to the airflow performance tables listed in the installation instructions, proper static pressure and CFM requirements can be dialed in. The scroll housing ([12]) and blower scroll provide quiet and efficient airflow.



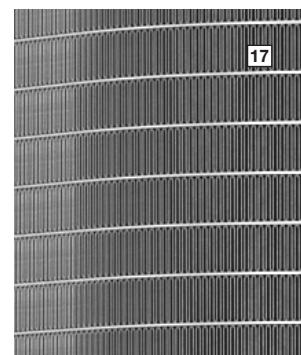
High and Low Pressure Switches & Freeze Stat

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



MicroChannel Evaporator & TXV

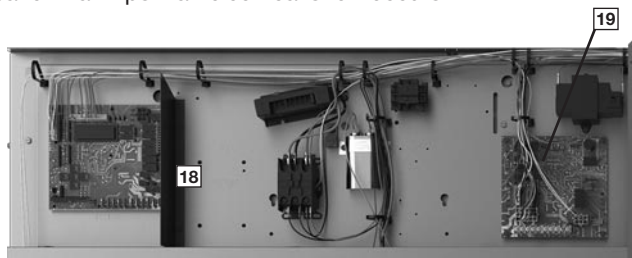
The Microchannel Evaporator ([17]) is accessible through the blower compartment, and through the filter rack, to simplify cleaning. The evaporator uses microchannel technology for maximum heat transfer, light weight, fewer manually brazed connections and reduced refrigerant charge. The TXV metering device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





Control Box

Inside the control box (18), each electrical component is clearly labeled; that label matches the component to the wire diagram for ease of trouble shooting. All wiring is numbered on each end of the termination and is color-coded to match the wiring diagram. The integrated furnace control, incorporates the PlusOne Diagnostics: Dual 7-Segment LED Display (19) with easy-to-understand fault codes. The control transformer has a low voltage circuit breaker that trips if an electrical short occurs.



ClearControl™ DDC System

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

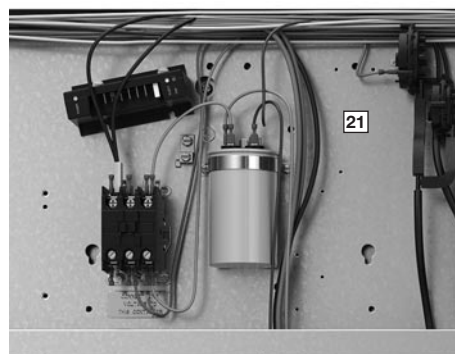


The RACC Cooling only with the RTU-C is specifically designed to be applied in four distinct applications:

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

ComfortAlert®

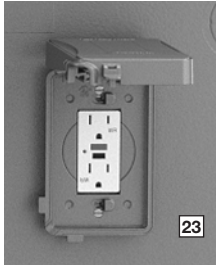
A factory or field installed Comfort Alert® (21) module is available for power phase-monitoring protection and additional compressor diagnostics. The alarms can be displayed on the RTU-C display, through the (BAS) network, or connected to the "L-Terminal" of a thermostat for notification.





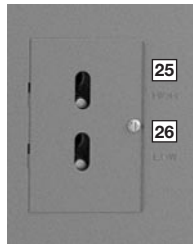
Convenience Outlet, Disconnect, & Circuit Breaker

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



External Lockable Gauge Ports

To the right left of the compressor compartment are the externally mounted lockable gauge ports. They are permanently identified by embossed lettering that identifies the compressor circuit, high pressure connection, (25) and low pressure connection (26). Because the gauge ports are mounted externally, an accurate diagnostic of system operation can be performed without removing access panels. Brass caps on the Schrader fitting ensure the gauge parts are leak proof.



Compressor

The compressor compartment houses the heartbeat of the unit. The scroll compressor (30) is known for its long life and for reliable, quiet, and efficient operation. The suction and discharge lines are designed with shock loops (31) to absorb the strain and stress that the starting torque, steady state operation, and shut-down cycle impose on the refrigerant tubing. 3-5 ton ZR units include one single-stage compressor, and 3-6 ton ZT units include one two-stage compressor.



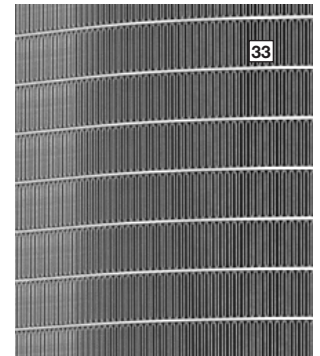
Condenser Fans

The condenser fan motor (32) can easily be accessed and maintained through the top of the unit. A down-mount fan provides corrosion protection and easy removal. The polarized plug connection allows the motor to be changed quickly and eliminates the need to snake wires through the unit.



MicroChannel Condenser Technology

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



Coil Coating

Every unit offers the option of factory-applied ElectroFin® E-Coat condenser coating (34) that delivers superior corrosion resistance for outdoor coils to operate in the harshest of environments.





Economizer and Dampers

Each unit is designed for both down flow or horizontal applications ([35]) for job configuration flexibility. The return air compartment can also contain an economizer. Each unit is pre-wired for the economizer to allow quick, plug-in installation. Available as a factory-installed option, the economizer provides free cooling when outdoor conditions are suitable and also provides fresh air to meet local requirements.

It comes standard with single enthalpy controls, which can be upgraded to dual enthalpy easily in the field. The 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 set point, an outdoor-air set point, a mixed-air set point, and a CO₂ set point. Barometric relief is standard on all economizers.



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

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

Roofcurb

The Rheem roofcurb ([36]) is made for tool-less assembly at the jobsite by engaging tabs in slots of adjacent curb sides, which makes the assembly process quick and easy.



HUMIDIDRY™ DEHUMIDIFICATION SYSTEM

With the factory installed dehumidification option, in addition to a thermostat or space temperature sensor that is normally present, an indoor relative humidity sensor is installed in the occupied space and connected to the Rooftop Unit Controller (RTU-C) which then controls the capacity of the cooling coil to remove moisture from the supply air and maintain space relative humidity below an adjustable limit visible on the RTU-C display. The default value is the ASHRAE recommended limit of 60% RH. With this option, a refrigerant reheat coil is installed downstream from the evaporator coil. When the space humidity is too high and reheat is energized, this coil uses some of the heat that is normally rejected to the outside by the condenser coil to instead reheat the cold air from the evaporator coil just enough to avoid overcooling and providing “neutral air” to the occupied space. On a two-stage system, it is possible for both a thermostat and humidistat to register readings above set point. Under this condition, the system runs in the high stage dehumidification cycle, and the VFD operates on high speed. This provides dry conditioned air.

Because the demand for dehumidification can be different from the cooling demand, the unit will first satisfy the demand for cooling and then if the space humidity is still too high, dehumidification mode is energized. When in dehumidification mode, the supply air leaving the unit will be near the entering air temperature, but at a much lower humidity. The unit will exit the dehumidification mode when the humidity set point is satisfied; or if the load is increased, it will return to normal cooling mode. Reheat is not available during the gas-heating mode.

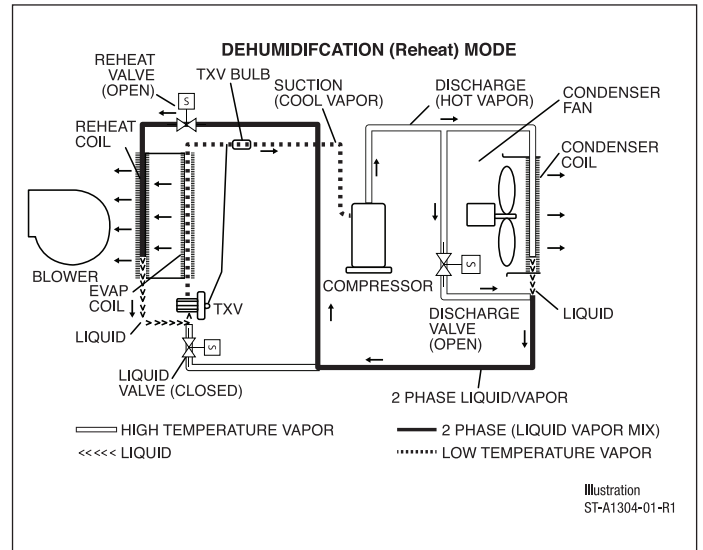


Figure 2 shows the refrigerant path during the reheat mode. When the reheat cycle is energized by the RTU-C, the reheat solenoid valve, upstream of the reheat coil opens. The liquid solenoid valve ahead of the TXV, closes. The discharge solenoid valve, in the compressor discharge line, opens. The liquid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

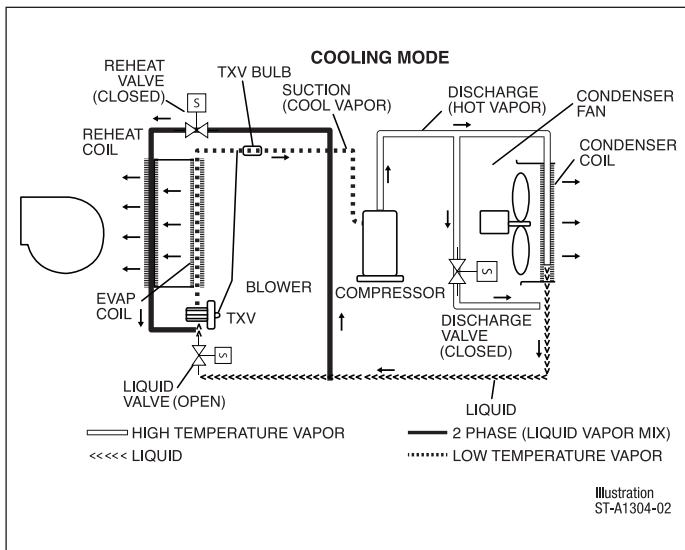


Figure 1 shows the refrigerant path during the normal cooling mode. The liquid refrigerant leaves the TXV with the sudden pressure drop causing the liquid to expand to a vapor and absorbing the heat from the supply air going through the evaporator coil. The refrigerant vapor then travels to the compressor 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.

R	AC	C	ZR	036	A	C	T	10	2	A	A	***
1	23	4	56	789	10	11	12	13 14	15	16	17	18 19 20

1—Brand

R = Rheem

2, 3—Unit Type

AC = Packaged AC

4—Cabinet Type

C = Small Commercial

5, 6—Cooling Stages

ZR = 1 Stage Cooling

ZT = 2 Stage Cooling

7, 8, 9—Capacity

036 = 3 Ton

048 = 4 Ton

060 = 5 Ton

072 = 6 Ton

10—Major series

A

11—Voltage

J = 1 phase/208-230V/60 Hz¹

C = 3 phase/208-230V/60 Hz

D = 3 phase/460V/60 Hz

Y = 3 phase/575V/60 Hz²
12—Drive

T = Direct Drive Standard Static
Constant Torque

U = Direct Drive High Static
Constant Torque

13, 14—Heat Capacity

00 = No Heat

10 = 10 kw

15 = 15 kw

20 = 20 kw

24 = 24 kw

15—Heat Configuration

0 = No stages

1 = 1-stage

2 = 2-stage

16—Control

A = Core Command
(Non-Communicating)

B = Core Command with
Phase Monitor

C = Clear Control (DDC)

D = Clear Control (DDC) &
Comfort Alert

17—Minor series

A = First Generation

B = Second Generation

C = Third Generation

18, 19, 20—Option Code

See next page

NOTES:

1. J voltage is not available on 6 ton models.

2. Y voltage is only available on ZR036-060 and ZT072 models.

FACTORY INSTALLED OPTION CODES FOR RACC (3 TO 6 TON)

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

¹Low ambient freeze-stat included on all reheat models; low ambient option is not selectable for this unit.

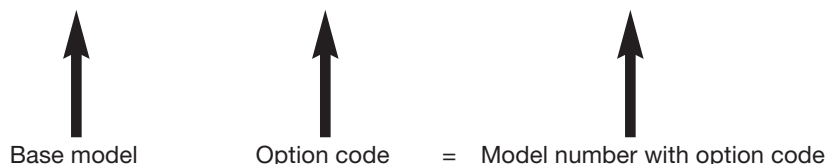
²CC-requires LV (louver protection)

Instructions for Factory Installed Option(s) Selection

Note: Three characters following the model number will be utilized to designate a factory-installed option or combination of options. If no factory option(s) is required, "AAO" follows the model number.

- **Step 1:** In the table above, based on the desired features, choose option code character from highlighted options on the left side under the number 18. For example, the option code character "E" has Louver protection and Coil Coating.
- **Step 2:** In the table above, based on the desired features, choose option code character from highlighted options on the left side under the number 19. For example, the option code character "F" has Low Ambient / Freeze Stat and Disconnect switch.
- **Step 3:** In the table above, based on the desired features, choose option code character from highlighted options on the left side under the number 20. For example, the option code character "3" has Economizer and Return Smoke.
- The resulting option code from examples above is: "EF3"
- **Step 4:** Add your option code selection to the end of model number

◦ Example: RACCZR036ACT000AA EF3 = RACCZR036ACT000AAEF3



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

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

Example:

Voltage—	230 V – 3 Phase – 60 Hz
Total Cooling Capacity—	47,000 BTUH [13.8 kW]
Sensible Cooling Capacity—	36,000 BTUH [10.6 kW]
Heating Capacity—	29,300 BTUH [10 kW]
*Condenser Entering Air—	95°F [35.0°C] DB
*Evaporator Mixed Air Entering—	67°F [19.4°C] WB
	78°F [25.6°C] DB
*Indoor Air Flow (vertical)—	1600 CFM [755 L/s]
*External Static Pressure—	0.6 in. WG [1.15 kPa]

2. SELECT UNIT TO MEET COOLING REQUIREMENTS.

Since total cooling is within range of a nominal 4-ton unit, use the cooling performance table at 95°F DB condenser inlet air. Interpolate between 1730 CFM [816 L/s] and 1400 CFM [660 L/s] to determine total and sensible capacity and Depression Ratio for inlet air at 1600CFM [755 L/s] indoor airflow (table basis)

Interpolation Formula:

$$MBH_1 + \left[(CFM - CFM_1) \times \left(\frac{MBH_2 - MBH_1}{CFM_2 - CFM_1} \right) \right] = MBH$$

Total Cooling Capacity:

$$46,800 + \left[(1,600 - 1,730) \times \left(\frac{45,200 - 46,800}{1,400 - 1,730} \right) \right] = 46,170 \text{ BTUH}$$

Total Cooling Capacity = 46,800 BTUH [13.5 kW]
Sensible Cooling Capacity = 33,7400 BTUH [9.9 kW]
DR = 0.2

When the entering dry bulb temperature (dbE) is not 80°F [26.7°C], the sensible capacity needs to be adjusted.

Note: total capacity is unaffected

Sensible Capacity Depression Formula:

$$\begin{aligned} \text{Cap}_{\text{sensible}} + [1.10 \times \text{CFM} \times (1 - \text{DR}) \times (\text{dbE} - 80)] \\ = 33,740 + [1.10 \times 1,600 \times (1 - 0.2) \times (78 - 80)] \\ \text{Sensible Cooling Capacity} = 30,924 \text{ BTUH [9.1 kW]} \end{aligned}$$

3. DETERMINE BLOWER SPEED AND BHP TO MEET SYSTEM DESIGN.

Total ESP (external static pressure) per the spec of 0.6 in WG [1.15 kPa] includes the system duct and grilles. Add from the table “Component Air Resistance,” 0.13 in. WG [0.04 kPa] for wet coil. Using the “Airflow Performance Table”, at the specified 1,600 CFM and 0.7 in. WG [0.17 kPa] ESP, determine blower wattage.

CFM = 1564
Watts = 440
Tap = 5

3. CALCULATE INDOOR BLOWER BTUH HEAT EFFECT FROM MOTOR BHP IN STEP 3.

Assuming an average of 85% motor efficiency, determine the amount of heat generated by the blower motor at the specified CFM and ESP by dividing the watts used by the motor efficiency and solving for the difference. Convert this value from watts to BTUH, multiplying by 3.41 BTUH/Watt

Watts = 440

Avg. Motor Efficiency = 85%

$$\begin{aligned} \text{Indoor Blower Motor Heat} &= \left[\left(\frac{\text{Watts}}{0.85} \right) - \text{Watts} \right] \times 3.41 \\ &= [(440/0.85) - 440] \times 3.41 = 77.6 \text{ BTUH [0.02 kW]} \end{aligned}$$

5. CALCULATE THE NET COOLING CAPACITIES

Net cooling capacities can be calculated by subtracting the motor heat from the gross cooling capacities.

Net Total Capacity = Gross Total Capacity – Indoor Blower Motor Heat

$$= 46,170 - 77 = 46,093 \text{ BTUH [13.5 kW]}$$

Net Sensible Capacity = Gross Sensible Capacity – Indoor Blower Motor Heat

$$= 30,924 - 77 = 30,847 \text{ BTUH [9.0 kW]}$$

6. SELECT UNIT HEATING CAPACITY

From “Heater Kit” Table, select kW to meet heating capacity requirement; multiply kW by 3412 to convert to BTUH.

Use 10 kW Heater Kit

Heater Kit Model:	Heater Kit Capacity:
RXJDC10CP	34,120 BTUH [10 kW]

Add Indoor Blower Motor Heat (step 4) to Heater Kit Capacity to get net total heating capacity:

$$34,120 + 77 = 34,197 \text{ BTUH [10.0 kW]}$$

7. CHOOSE MODEL RACCZR048ACT

[] Designates Metric Conversions

NOM. SIZES 3-6 TONS [10.6-21.1 kW] ASHRAE 90.1 2019 COMPLIANT MODELS

Model RACCZR Series	036ACT	036ACU	036ADT	036ADU
Cooling Performance^A				CONTINUED →
Gross Cooling Capacity Btu [kW]	36,000 [10.55]	36,000 [10.55]	36,000 [10.55]	36,000 [10.55]
EER/EER2	11.2/10.6	11.2/10.6	11.2/10.6	11.2/10.6
SEER/SEER2 ^B	14/13.4	14/13.4	14/13.4	14/13.4
Nominal CFM/AHRI Rated CFM [L/s]	1200 [566]	1200 [566]	1200 [566]	1200 [566]
AHRI Rated CFM (SEER/SEER2) [L/s]	1300/1025 [613/483]	1300/1025 [613/483]	1300/1025 [613/483]	1300/1025 [613/483]
AHRI Net Cooling Capacity Btu (SEER/SEER2) [kW]	35,400/34,200 [10.37/10.02]	35,400/34,200 [10.37/10.02]	35,400/34,200 [10.37/10.02]	35,400/34,200 [10.37/10.02]
Net Sensible Capacity Btu (SEER/SEER2) [kW]	27,000/23,940 [7.91/7.01]	27,000/23,940 [7.91/7.01]	27,000/23,940 [7.91/7.01]	27,000/23,940 [7.91/7.01]
Net Latent Capacity Btu (SEER/SEER2) [kW]	8,400/10,260 [2.46/3.00]	8,400/10,260 [2.46/3.00]	8,400/10,260 [2.46/3.00]	8,400/10,260 [2.46/3.00]
Net System Power kW (SEER/SEER2)	3.16/3.22	3.16/3.22	3.16/3.22	3.16/3.22
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
No./Stages	1	1	1	1
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	16.48 [1.53]	16.48 [1.53]	16.48 [1.53]	16.48 [1.53]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor 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]	7.52 [0.7]	7.52 [0.7]	7.52 [0.7]	7.52 [0.7]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	4600 [2171]	4600 [2171]	4600 [2171]	4600 [2171]
No. Motors/HP	1 at 1/5 HP	1 at 1/5 HP	1 at 1/5 HP	1 at 1/5 HP
Motor RPM	820	820	820	820
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	3/4	1 1/2	3/4	1
Motor RPM	1050	1400	1050	1050
Motor Frame Size	48	48	48	48
Filter - Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]
Refrigerant Charge Oz. [g]	69 [1956]	69 [1956]	69 [1956]	69 [1956]
Weights				
Net Weight lbs. [kg]	557 [253]	557 [253]	557 [253]	557 [253]
Ship Weight lbs. [kg]	595 [270]	595 [270]	595 [270]	595 [270]

[] Designates Metric Conversions

NOTES:

A. Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to $\pm 20\%$ of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240.

B. EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.

**NOM. SIZES 3-6 TONS [10.6-21.1 kW] ASHRAE 90.1 2019 COMPLIANT MODELS**

Model RACCZR Series	036AJT	036AJU	036AYT	036AYU
Cooling Performance^A				CONTINUED →
Gross Cooling Capacity Btu [kW]	36,000 [10.55]	36,000 [10.55]	36,000 [10.55]	36,000 [10.55]
EER/EER2	11.2/10.6	11.2/10.6	11.2/10.6	11.2/10.6
SEER/SEER2 ^B	14/13.4	14/13.4	14/13.4	14/13.4
Nominal CFM/AHRI Rated CFM [L/s]	1200 [566]	1200 [566]	1200 [566]	1200 [566]
AHRI Rated CFM (SEER/SEER2) [L/s]	1300/1025 [613/483]	1300/1025 [613/483]	1300/1025 [613/483]	1300/1025 [613/483]
AHRI Net Cooling Capacity Btu (SEER/SEER2) [kW]	35,400/34,200 [10.37/10.02]	35,400/34,200 [10.37/10.02]	35,400/34,200 [10.37/10.02]	35,400/34,200 [10.37/10.02]
Net Sensible Capacity Btu (SEER/SEER2) [kW]	27,000/23,940 [7.91/7.01]	27,000/23,940 [7.91/7.01]	27,000/23,940 [7.91/7.01]	27,000/23,940 [7.91/7.01]
Net Latent Capacity Btu (SEER/SEER2) [kW]	8,400/10,260 [2.46/3.00]	8,400/10,260 [2.46/3.00]	8,400/10,260 [2.46/3.00]	8,400/10,260 [2.46/3.00]
Net System Power kW (SEER/SEER2)	3.16/3.22	3.16/3.22	3.16/3.22	3.16/3.22
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
No./Stages	1	1	1	1
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	16.48 [1.53]	16.48 [1.53]	16.48 [1.53]	16.48 [1.53]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor 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]	7.52 [0.7]	7.52 [0.7]	7.52 [0.7]	7.52 [0.7]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	4600 [2171]	4600 [2171]	4600 [2171]	4600 [2171]
No. Motors/HP	1 at 1/5 HP	1 at 1/5 HP	1 at 1/5 HP	1 at 1/5 HP
Motor RPM	820	820	820	820
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	3/4	1 1/2	3/4	1 1/2
Motor RPM	1050	1400	1050	1400
Motor Frame Size	48	48	48	48
Filter - Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(4)2x20x20 [51x508x508]	(4)2x20x20 [51x508x508]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]
Refrigerant Charge Oz. [g]	69 [1956]	69 [1956]	69 [1956]	69 [1956]
Weights				
Net Weight lbs. [kg]	557 [253]	557 [253]	557 [253]	557 [253]
Ship Weight lbs. [kg]	595 [270]	595 [270]	595 [270]	595 [270]

[] Designates Metric Conversions

NOTES:

A. Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to $\pm 20\%$ of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240.

B. EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.





NOM. SIZES 3-6 TONS [10.6-21.1 kW] ASHRAE 90.1 2019 COMPLIANT MODELS

Model RACCZR Series	048ACT	048ACU	048ADT	048ADU
Cooling Performance^A				CONTINUED →
Gross Cooling Capacity Btu [kW]	49,000 [14.36]	49,000 [14.36]	49,000 [14.36]	49,000 [14.36]
EER/EER2	11.2/10.6	11.2/10.6	11.2/10.6	11.2/10.6
SEER/SEER2 ^B	14/13.4	14/13.4	14/13.4	14/13.4
Nominal CFM/AHRI Rated CFM [L/s]	1600 [755]	1600 [755]	1600 [755]	1600 [755]
AHRI Rated CFM (SEER/SEER2) [L/s]	1730/1460 [816/689]	1730/1460 [816/689]	1730/1460 [816/689]	1730/1460 [816/689]
AHRI Net Cooling Capacity Btu (SEER/SEER2) [kW]	47,500/45,000 [13.92/13.19]	47,500/45,000 [13.92/13.19]	47,500/45,000 [13.92/13.19]	47,500/45,000 [13.92/13.19]
Net Sensible Capacity Btu (SEER/SEER2) [kW]	35,100/31,600 [10.28/9.26]	35,100/31,600 [10.28/9.26]	35,100/31,600 [10.28/9.26]	35,100/31,600 [10.28/9.26]
Net Latent Capacity Btu (SEER/SEER2) [kW]	12,400/13,400 [3.63/3.93]	12,400/13,400 [3.63/3.93]	12,400/13,400 [3.63/3.93]	12,400/13,400 [3.63/3.93]
Net System Power kW (SEER/SEER2)	4.24/4.24	4.24/4.24	4.24/4.24	4.24/4.24
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
No./Stages	1	1	1	1
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	16.52 [1.53]	16.52 [1.53]	16.52 [1.53]	16.52 [1.53]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	7.52 [0.7]	7.52 [0.7]	7.52 [0.7]	7.52 [0.7]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	5900 [2784]	5900 [2784]	5900 [2784]	5900 [2784]
No. Motors/HP	1 at 1/2 HP	1 at 1/2 HP	1 at 1/2 HP	1 at 1/2 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	3/4	1 1/2	3/4	1
Motor RPM	1050	1400	1050	1050
Motor Frame Size	48	48	48	48
Filter - Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]
Refrigerant Charge Oz. [g]	86 [2438]	86 [2438]	86 [2438]	86 [2438]
Weights				
Net Weight lbs. [kg]	580 [263]	580 [263]	580 [263]	580 [263]
Ship Weight lbs. [kg]	618 [280]	618 [280]	618 [280]	618 [280]

[] Designates Metric Conversions

NOTES:

A. Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to $\pm 20\%$ of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240.

B. EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.



NOM. SIZES 3-6 TONS [10.6-21.1 kW] ASHRAE 90.1 2019 COMPLIANT MODELS

Model RACCZR Series	048AJT	048AJU	048AYT	048AYU
Cooling Performance^A				CONTINUED →
Gross Cooling Capacity Btu [kW]	49,000 [14.36]	49,000 [14.36]	49,000 [14.36]	49,000 [14.36]
EER/EER2	11.2/10.6	11.2/10.6	11.2/10.6	11.2/10.6
SEER/SEER2 ^B	14/13.4	14/13.4	14/13.4	14/13.4
Nominal CFM/AHRI Rated CFM [L/s]	1600 [755]	1600 [755]	1600 [755]	1600 [755]
AHRI Rated CFM (SEER/SEER2) [L/s]	1730/1460 [816/689]	1730/1460 [816/689]	1730/1460 [816/689]	1730/1460 [816/689]
AHRI Net Cooling Capacity Btu (SEER/SEER2) [kW]	47,500/45,000 [13.92/13.19]	47,500/45,000 [13.92/13.19]	47,500/45,000 [13.92/13.19]	47,500/45,000 [13.92/13.19]
Net Sensible Capacity Btu (SEER/SEER2) [kW]	35,100/31,600 [10.28/9.26]	35,100/31,600 [10.28/9.26]	35,100/31,600 [10.28/9.26]	35,100/31,600 [10.28/9.26]
Net Latent Capacity Btu (SEER/SEER2) [kW]	12,400/13,400 [3.63/3.93]	12,400/13,400 [3.63/3.93]	12,400/13,400 [3.63/3.93]	12,400/13,400 [3.63/3.93]
Net System Power kW (SEER/SEER2)	4.24/4.24	4.24/4.24	4.24/4.24	4.24/4.24
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
No./Stages	1	1	1	1
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	16.52 [1.53]	16.52 [1.53]	16.52 [1.53]	16.52 [1.53]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	7.52 [0.7]	7.52 [0.7]	7.52 [0.7]	7.52 [0.7]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	5900 [2784]	5900 [2784]	5900 [2784]	5900 [2784]
No. Motors/HP	1 at 1/2 HP	1 at 1/2 HP	1 at 1/2 HP	1 at 1/2 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	3/4	1.5	3/4	1 1/2
Motor RPM	1050	1400	1050	1400
Motor Frame Size	48	48	48	48
Filter - Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]
Refrigerant Charge Oz. [g]	86 [2438]	86 [2438]	86 [2438]	86 [2438]
Weights				
Net Weight lbs. [kg]	580 [263]	580 [263]	580 [263]	580 [263]
Ship Weight lbs. [kg]	618 [280]	618 [280]	618 [280]	618 [280]

[] Designates Metric Conversions

NOTES:

A. Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to $\pm 20\%$ of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240.

B. EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.



NOM. SIZES 3-6 TONS [10.6-21.1 kW] ASHRAE 90.1 2019 COMPLIANT MODELS

Model RACCZR Series	060ACT	060ACU	060ADT	060ADU
Cooling Performance^A				CONTINUED →
Gross Cooling Capacity Btu [kW]	59,500 [17.43]	59,500 [17.43]	59,500 [17.43]	59,500 [17.43]
EER/EER2	11.2/10.6	11.2/10.6	11.2/10.6	11.2/10.6
SEER/SEER2 ^B	14/13.4	14/13.4	14/13.4	14/13.4
Nominal CFM/AHRI Rated CFM [L/s]	2000 [944]	2000 [944]	2000 [944]	2000 [944]
AHRI Rated CFM (SEER/SEER2) [L/s]	1950/1700 [920/802]	1950/1700 [920/802]	1950/1700 [920/802]	1950/1700 [920/802]
AHRI Net Cooling Capacity Btu (SEER/SEER2) [kW]	57,500/56,500 [16.85/16.55]	57,500/56,500 [16.85/16.55]	57,500/56,500 [16.85/16.55]	57,500/56,500 [16.85/16.55]
Net Sensible Capacity Btu (SEER/SEER2) [kW]	41,000/38,850 [12.01/11.38]	41,000/38,850 [12.01/11.38]	41,000/38,850 [12.01/11.38]	41,000/38,850 [12.01/11.38]
Net Latent Capacity Btu (SEER/SEER2) [kW]	16,500/17,650 [4.83/5.17]	16,500/17,650 [4.83/5.17]	16,500/17,650 [4.83/5.17]	16,500/17,650 [4.83/5.17]
Net System Power kW (SEER/SEER2)	5.13/5.33	5.13/5.33	5.13/5.33	5.13/5.33
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
No./Stages	1	1	1	1
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	16.52 [1.53]	16.52 [1.53]	16.52 [1.53]	16.52 [1.53]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	7.52 [0.7]	7.52 [0.7]	7.52 [0.7]	7.52 [0.7]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	5900 [2784]	5900 [2784]	5900 [2784]	5900 [2784]
No. Motors/HP	1 at 1/2 HP	1 at 1/2 HP	1 at 1/2 HP	1 at 1/2 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1	1 1/2	1	1.2
Motor RPM	1050	1400	1050	1300
Motor Frame Size	48	48	48	48
Filter - Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]
Refrigerant Charge Oz. [g]	82 [2324]	82 [2324]	82 [2324]	82 [2324]
Weights				
Net Weight lbs. [kg]	583 [264]	583 [264]	583 [264]	583 [264]
Ship Weight lbs. [kg]	621 [282]	621 [282]	621 [282]	621 [282]

[] Designates Metric Conversions

NOTES:

A. Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to $\pm 20\%$ of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240.

B. EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.



NOM. SIZES 3-6 TONS [10.6-21.1 kW] ASHRAE 90.1 2019 COMPLIANT MODELS

Model RACCZR Series	060AJT	060AJU	060AYT	060AYU
Cooling Performance^A				CONTINUED →
Gross Cooling Capacity Btu [kW]	59,500 [17.43]	59,500 [17.43]	59,500 [17.43]	59,500 [17.43]
EER/EER2	11.2/10.6	11.2/10.6	11.2/10.6	11.2/10.6
SEER/SEER2 ^B	14/13.4	14/13.4	14/13.4	14/13.4
Nominal CFM/AHRI Rated CFM [L/s]	2000 [944]	2000 [944]	2000 [944]	2000 [944]
AHRI Rated CFM (SEER/SEER2) [L/s]	1950/1700 [920/802]	1950/1700 [920/802]	1950/1700 [920/802]	1950/1700 [920/802]
AHRI Net Cooling Capacity Btu (SEER/SEER2) [kW]	57,500/56,500 [16.85/16.55]	57,500/56,500 [16.85/16.55]	57,500/56,500 [16.85/16.55]	57,500/56,500 [16.85/16.55]
Net Sensible Capacity Btu (SEER/SEER2) [kW]	41,000/38,850 [12.01/11.38]	41,000/38,850 [12.01/11.38]	41,000/38,850 [12.01/11.38]	41,000/38,850 [12.01/11.38]
Net Latent Capacity Btu (SEER/SEER2) [kW]	16,500/17,650 [4.83/5.17]	16,500/17,650 [4.83/5.17]	16,500/17,650 [4.83/5.17]	16,500/17,650 [4.83/5.17]
Net System Power kW (SEER/SEER2)	5.13/5.33	5.13/5.33	5.13/5.33	5.13/5.33
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
No./Stages	1	1	1	1
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	16.52 [1.53]	16.52 [1.53]	16.52 [1.53]	16.52 [1.53]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	7.52 [0.7]	7.52 [0.7]	7.52 [0.7]	7.52 [0.7]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	5900 [2784]	5900 [2784]	5900 [2784]	5900 [2784]
No. Motors/HP	1 at 1/2 HP	1 at 1/2 HP	1 at 1/2 HP	1 at 1/2 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1	1 1/2	1	1 1/2
Motor RPM	1050	1400	1050	1400
Motor Frame Size	48	48	48	48
Filter - Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]
Refrigerant Charge Oz. [g]	82 [2324]	82 [2324]	82 [2324]	82 [2324]
Weights				
Net Weight lbs. [kg]	583 [264]	583 [264]	583 [264]	583 [264]
Ship Weight lbs. [kg]	621 [282]	621 [282]	621 [282]	621 [282]

[] Designates Metric Conversions

NOTES:

A. Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to $\pm 20\%$ of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240.

B. EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.

C. Integrated Energy Efficiency Ratio (IEER) is rated in accordance with AHRI Standard 340/360.

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

NOM. SIZES 3-5 TONS [10.6-17.58 kW] ASHRAE 90.1 2019 COMPLIANT MODELS

Model RACCZT Series	036	048	060
Cooling Performance^A			CONTINUED →
Gross Cooling Capacity Btu [kW]	39,500/35400 [11.57/10.37]	50,000/49,500 [14.65/14.5]	61,000/59,500 [17.87/17.43]
EER/EER2	12.5/12	12.5/12	12.5/12
SEER/SEER2 ^B	17/16.2	17/16.2	17/16.2
Nominal CFM	1200 [566]	1600 [755]	2000 [944]
AHRI Rated CFM (SEER/SEER2) [L/s]	1260/1055 [595/498]	1570/1420 [741/670]	1815/1615 [856/762]
AHRI Net Cooling Capacity Btu (SEER/SEER2) [kW]	38,500/34,800 [11.28/10.2]	48,500/48,000 [14.21/14.06]	59,000/57,500 [17.29/16.85]
Net Sensible Capacity Btu (SEER/SEER2) [kW]	27,500/24,200 [8.06/7.09]	34,500/33,000 [10.11/9.67]	42,000/40,000 [12.31/11.72]
Net Latent Capacity Btu (SEER/SEER2) [kW]	11,000/10,600 [3.22/3.11]	14,000/15,000 [4.1/4.39]	17,000/17,500 [4.98/5.13]
Net System Power kW (SEER/SEER2)	2.60/2.64	3.67/3.7	4.6/4.62
Compressor			
No./Type	1/Scroll	1/Scroll	1/Scroll
No./Stages	2	2	2
Outdoor Sound Rating (dB)^C	79	83	86
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.71 [18]	0.71 [18]	0.71 [18]
Face Area sq. ft. [sq. m]	16.72 [1.55]	16.72 [1.55]	16.66 [1.55]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	7.49 [0.69]	7.49 [0.69]	7.47 [0.69]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]
Drive Type/No. Speeds	Direct/2	Direct/2	Direct/2
CFM [L/s]	4850 [2289]	5900 [2784]	5900 [2784]
No. Motors/HP	1 at 1/3 HP	1 at 1/2 HP	1 at 1/2 HP
Motor RPM	800/440	900/800	900/800
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]
Drive Type	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple
No. Motors	1	1	1
Motor HP (See Airflow Tables)	Varies	Varies	Varies
Filter - Type	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]
Refrigerant Charge Oz. [g]	76.8 [2177]	82.4 [2336]	90 [2552]
Weights			
Net Weight lbs. [kg]	561 [254]	580 [263]	583 [264]
Ship Weight lbs. [kg]	599 [272]	618 [280]	621 [282]

[] Designates Metric Conversions

NOTES:

A. Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to $\pm 20\%$ of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240.

B. EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.

C. Integrated Energy Efficiency Ratio (IEER) is rated in accordance with AHRI Standard 340/360.

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



NOM. SIZES 3-6 TONS [10.6-21.1 kW] ASHRAE 90.1 2019 COMPLIANT MODELS

Model RACCZT Series	072ACT	072ACU	072ADT	072ADU
Cooling Performance^A				CONTINUED →
Gross Cooling Capacity Btu [kW]	70,000 [20.51]	70,000 [20.51]	70,000 [20.51]	70,000 [20.51]
EER/EER2	11.2/10.6	11.2/10.6	11.2/10.6	11.2/10.6
IEER ^B	14.8	14.8	14.8	14.8
Nominal CFM/AHRI Rated CFM [L/s]	2400 [1133]	2400 [1133]	2400 [1133]	2400 [1133]
AHRI Rated CFM [L/s]	2400 [1133]	2400 [1133]	2400 [1133]	2400 [1133]
AHRI Net Cooling Capacity Btu [kW]	68000 [19.93]	68000 [19.93]	68000 [19.93]	68000 [19.93]
Net Sensible Capacity Btu [kW]	50199.9 [14.71]	50199.9 [14.71]	50199.9 [14.71]	50199.9 [14.71]
Net Latent Capacity Btu [kW]	17800.1 [5.22]	17800.1 [5.22]	17800.1 [5.22]	17800.1 [5.22]
Net System Power kW	6.07	6.07	6.07	6.07
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
No./Stages	2	2	2	2
Outdoor Sound Rating (dB)^C	88	88	88	88
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]	16.52 [1.53]	16.52 [1.53]	16.52 [1.53]	16.52 [1.53]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [32]	1 [32]	1 [32]	1 [32]
Face Area sq. ft. [sq. m]	7.52 [0.7]	7.52 [0.7]	7.52 [0.7]	7.52 [0.7]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]	1/26 [660.4]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	5900 [2784]	5900 [2784]	5900 [2784]	5900 [2784]
No. Motors/HP	1 at 3/4 HP	1 at 3/4 HP	1 at 3/4 HP	1 at 3/4 HP
Motor RPM	1100	1100	1100	1100
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]	1/11x11 [279x279]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1 1/5	1 1/5	1 1/5	1 1/5
Motor RPM	1300	1300	1300	1300
Motor Frame Size	48	48	48	48
Filter - Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]
Refrigerant Charge Oz. [g]	105.6[2994]	105.6[2994]	105.6[2994]	105.6[2994]
Weights				
Net Weight lbs. [kg]	582 [264]	582 [264]	582 [264]	582 [264]
Ship Weight lbs. [kg]	620 [281]	620 [281]	620 [281]	620 [281]

[] Designates Metric Conversions

NOTES:

A. Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to $\pm 20\%$ of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240.

B. EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.

C. Integrated Energy Efficiency Ratio (IEER) is rated in accordance with AHRI Standard 340/360.

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





NOM. SIZES 3-6 TONS [10.6-21.1 kW] ASHRAE 90.1 2019 COMPLIANT MODELS

Model RACCZT Series	072AYT	072AYU
Cooling Performance^A		
Gross Cooling Capacity Btu [kW]	70,000 [20.51]	70,000 [20.51]
EER/EER2	11.2/10.6	11.2/10.6
IEER ^B	14.8	14.8
Nominal CFM/AHRI Rated CFM [L/s]	2400 [1133]	2400 [1133]
AHRI Rated CFM [L/s]	2400 [1133]	2400 [1133]
AHRI Net Cooling Capacity Btu [kW]	68000 [19.93]	68000 [19.93]
Net Sensible Capacity Btu [kW]	50199.9 [14.71]	50199.9 [14.71]
Net Latent Capacity Btu [kW]	17800.1 [5.22]	17800.1 [5.22]
Net System Power kW	6.07	6.07
Compressor		
No./Type	1/Scroll	1/Scroll
No./Stages	2	2
Outdoor Sound Rating (dB)^C		
	88	88
Outdoor Coil - Fin Type		
	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	16.52 [1.53]	16.52 [1.53]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type		
	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [32]	1 [32]
Face Area sq. ft. [sq. m]	7.52 [0.7]	7.52 [0.7]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type		
	Propeller	Propeller
No. Used/Diameter in. [mm]	1/26 [660.4]	1/26 [660.4]
Drive Type/No. Speeds	Direct/1	Direct/1
CFM [L/s]	5900 [2784]	5900 [2784]
No. Motors/HP	1 at 3/4 HP	1 at 3/4 HP
Motor RPM	1100	1100
Indoor Fan - Type		
	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/11x11 [279x279]	1/11x11 [279x279]
Drive Type	Direct	Direct
No. Speeds	Multiple	Multiple
No. Motors	1	1
Motor HP	1 1/5	1 1/5
Motor RPM	1300	1300
Motor Frame Size	48	48
Filter - Type		
	Disposable	Disposable
Furnished	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]
Refrigerant Charge Oz. [g]		
	105.6[2994]	105.6[2994]
Weights		
Net Weight lbs. [kg]	582 [264]	582 [264]
Ship Weight lbs. [kg]	620 [281]	620 [281]

[] Designates Metric Conversions

NOTES:

A. Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to $\pm 20\%$ of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240.

B. EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.

C. Integrated Energy Efficiency Ratio (IEER) is rated in accordance with AHRI Standard 340/360.

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



WEIGHTED SOUND POWER LEVEL (dBA)

Unit Size – Series	Standard Rating (dBA)	TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment)							
		63	125	250	500	1000	2000	4000	8000
RACCZR036	78.6	46.2	64.4	63.8	68.4	69.1	66.2	61.4	56.7
RACCZR048	83.8	54.2	62.7	75.7	72.6	72.9	70.4	66.5	61.0
RACCZR060	83.3	55.0	61.7	71.6	72.4	73.1	70.5	66.4	62.5
RACCZT036	79.0	50.0	62.6	65.2	68.9	69.5	65.5	61.6	56.4
RACCZT048	83.0	49.0	63.2	69.2	72.8	72.5	70.2	65.5	58.6
RACCZT060	86.0	62.0	64.9	73.6	76.2	76.3	72.4	67.9	60.9
RACCZT072	83.3	55.0	61.7	71.6	72.4	73.1	70.5	66.4	62.5

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



Air

Gross Systems Performance Data

RACC Series

COOLING PERFORMANCE DATA — RACCZR036A

		ENTERING INDOOR AIR @ 80°F [26.7°C] dbE ①											
		67°F [19.4°C]			63°F [17.2°C]			61°F [16.1°C]			59°F [15.0°C]		
wbE		1350 [637]	1300 [614]	1050 [496]	1350 [637]	1300 [614]	1050 [496]	1350 [637]	1300 [614]	1050 [496]	1350 [637]	1300 [614]	1050 [496]
CFM [L/s]		0.21	0.2	0.15	0.21	0.2	0.15	0.21	0.2	0.15	0.21	0.2	0.15
DR ①													
75°F [23.9°C]	Total BTUH [kW]	43.5 [12.8]	43.2 [12.7]	41.7 [12.2]	40.4 [11.9]	40.2 [11.8]	38.8 [11.4]	37.8 [11.1]	37.6 [11.0]	36.3 [10.6]	37.7 [11.1]	37.5 [11.0]	36.2 [10.6]
	Sens BTUH [kW]	25.7 [7.5]	25.3 [7.4]	23.0 [6.7]	29.9 [8.8]	29.4 [8.6]	26.8 [7.8]	32.9 [9.6]	34.5 [10.1]	31.4 [9.2]	36.8 [10.8]	36.1 [10.6]	32.9 [9.6]
	Power	2.4	2.4	2.3	2.4	2.4	2.3	2.4	2.4	2.3	2.4	2.4	2.3
80°F [26.7°C]	Total BTUH [kW]	42.2 [12.4]	41.9 [12.3]	40.4 [11.8]	39.1 [11.5]	38.8 [11.4]	37.5 [11.0]	36.5 [10.8]	36.2 [10.6]	35.0 [10.2]	36.4 [10.7]	36.2 [10.6]	34.9 [10.2]
	Sens BTUH [kW]	25.0 [7.3]	24.5 [7.2]	22.3 [6.5]	29.2 [8.6]	28.7 [8.4]	26.1 [7.7]	32.7 [9.6]	34.4 [10.1]	30.7 [9.0]	36.0 [10.6]	35.4 [10.4]	32.2 [9.4]
	Power	2.5	2.5	2.4	2.5	2.5	2.4	2.5	2.5	2.4	2.5	2.5	2.4
85°F [29.4°C]	Total BTUH [kW]	40.8 [12.0]	40.6 [11.9]	39.1 [11.5]	37.8 [11.1]	37.5 [11.0]	36.2 [10.6]	35.7 [10.5]	35.4 [10.4]	34.9 [10.2]	35.1 [10.3]	34.8 [10.2]	33.6 [9.9]
	Sens BTUH [kW]	24.3 [7.1]	23.8 [7.0]	21.7 [6.4]	28.5 [8.3]	28.0 [8.2]	25.5 [7.5]	32.0 [9.4]	33.6 [9.9]	30.1 [8.8]	35.1 [10.3]	34.7 [10.2]	31.6 [9.3]
	Power	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.5	2.6	2.6	2.5
90°F [32.2°C]	Total BTUH [kW]	39.5 [11.6]	39.2 [11.5]	37.9 [11.1]	36.6 [10.7]	36.2 [10.6]	34.9 [10.2]	34.3 [10.1]	33.8 [9.9]	33.6 [9.8]	33.7 [9.9]	33.5 [9.8]	32.3 [9.5]
	Sens BTUH [kW]	23.6 [6.9]	23.2 [6.8]	21.1 [6.2]	27.8 [8.1]	27.3 [8.0]	24.9 [7.3]	31.3 [9.2]	33.0 [9.7]	29.5 [8.6]	33.7 [9.9]	33.5 [9.8]	31.0 [9.1]
	Power	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
95°F [35°C]	Total BTUH [kW]	38.2 [11.2]	37.9 [11.1]	36.6 [10.7]	35.3 [10.3]	34.9 [10.2]	33.6 [9.9]	33.0 [9.7]	32.5 [9.5]	32.3 [9.5]	32.4 [9.5]	32.2 [9.4]	31.0 [9.1]
	Sens BTUH [kW]	22.9 [6.7]	22.5 [6.6]	20.5 [6.0]	27.1 [8.0]	26.7 [7.8]	24.3 [7.1]	30.6 [9.0]	32.3 [9.5]	28.9 [8.5]	32.4 [9.5]	32.2 [9.4]	30.4 [8.9]
	Power	2.9	2.9	2.8	2.9	2.9	2.8	2.9	2.9	2.8	2.9	2.8	2.8
100°F [37.8°C]	Total BTUH [kW]	36.8 [10.8]	36.6 [10.7]	35.3 [10.3]	34.0 [10.0]	33.5 [9.8]	32.3 [9.5]	31.7 [9.3]	31.4 [9.2]	30.3 [8.9]	31.1 [9.1]	30.8 [9.0]	29.8 [8.7]
	Sens BTUH [kW]	22.3 [6.5]	21.9 [6.4]	19.9 [5.8]	26.5 [7.8]	26.0 [7.6]	23.7 [6.9]	30.0 [8.8]	31.1 [9.1]	28.3 [8.3]	31.1 [9.1]	30.8 [9.0]	29.8 [8.7]
	Power	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.9	3.0	3.0	2.9
105°F [40.6°C]	Total BTUH [kW]	35.5 [10.4]	35.2 [10.3]	34.0 [10.0]	32.4 [9.5]	32.2 [9.4]	31.1 [9.1]	30.3 [8.9]	29.8 [8.7]	28.6 [8.4]	29.7 [8.7]	29.5 [8.6]	28.5 [8.3]
	Sens BTUH [kW]	21.7 [6.3]	21.3 [6.2]	19.4 [5.7]	25.9 [7.6]	25.4 [7.4]	23.1 [6.8]	29.4 [8.6]	29.8 [8.7]	27.7 [8.1]	29.7 [8.7]	29.5 [8.6]	28.5 [8.3]
	Power	3.2	3.2	3.1	3.2	3.2	3.1	3.2	3.2	3.1	3.2	3.1	3.1
110°F [43.3°C]	Total BTUH [kW]	34.1 [10.0]	33.9 [9.9]	32.7 [9.6]	31.1 [9.1]	30.8 [9.0]	29.8 [8.7]	29.0 [8.5]	28.4 [8.3]	27.3 [8.0]	28.4 [8.3]	28.2 [8.3]	27.2 [8.0]
	Sens BTUH [kW]	21.1 [6.2]	20.7 [6.1]	18.8 [5.5]	25.3 [7.4]	24.8 [7.3]	22.6 [6.6]	28.8 [8.4]	28.4 [8.3]	27.2 [8.0]	28.4 [8.3]	28.2 [8.3]	27.2 [8.0]
	Power	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.2
115°F [46.1°C]	Total BTUH [kW]	32.8 [9.6]	32.6 [9.5]	31.4 [9.2]	29.7 [8.7]	29.5 [8.6]	28.5 [8.3]	27.6 [8.1]	27.1 [7.9]	26.0 [7.6]	27.0 [7.9]	26.8 [7.9]	25.9 [7.6]
	Sens BTUH [kW]	20.5 [6.0]	20.1 [5.9]	18.3 [5.4]	24.7 [7.2]	24.2 [7.1]	22.1 [6.5]	27.6 [8.1]	27.1 [7.9]	26.0 [7.6]	27.0 [7.9]	26.8 [7.9]	25.9 [7.6]
	Power	3.5	3.5	3.4	3.5	3.5	3.4	3.5	3.5	3.4	3.5	3.5	3.4
120°F [48.9°C]	Total BTUH [kW]	31.4 [9.2]	31.2 [9.1]	30.1 [8.8]	28.4 [8.3]	28.2 [8.3]	27.2 [8.0]	26.3 [7.7]	25.8 [7.5]	24.7 [7.2]	25.7 [7.5]	25.5 [7.5]	24.6 [7.2]
	Sens BTUH [kW]	19.9 [5.8]	19.6 [5.7]	17.8 [5.2]	24.1 [7.1]	23.7 [6.9]	21.6 [6.3]	26.3 [7.7]	25.8 [7.5]	24.7 [7.2]	25.7 [7.5]	25.5 [7.5]	24.6 [7.2]
	Power	3.7	3.7	3.6	3.7	3.7	3.6	3.7	3.7	3.6	3.7	3.7	3.6
125°F [51.7°C]	Total BTUH [kW]	30.1 [8.8]	29.9 [8.8]	28.8 [8.5]	27.0 [7.9]	26.8 [7.9]	25.9 [7.6]	24.9 [7.3]	24.4 [7.2]	23.4 [6.9]	24.3 [7.1]	24.2 [7.1]	23.3 [6.8]
	Sens BTUH [kW]	19.4 [5.7]	19.0 [5.6]	17.3 [5.1]	23.6 [6.9]	23.2 [6.8]	21.1 [6.2]	24.9 [7.3]	24.4 [7.2]	23.4 [6.9]	24.3 [7.1]	24.2 [7.1]	23.3 [6.8]
	Power	3.9	3.9	3.8	3.9	3.9	3.8	3.9	3.9	3.8	3.9	3.8	3.8

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

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

[] Designates Metric Conversions



COOLING PERFORMANCE DATA — RACCZR048A

ENTERING INDOOR AIR @ 80°F [26.7°C] dbE ①																		
w/E	71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]			61°F [16.1°C]			59°F [15.0°C]					
	1800 [850]	1730 [816]	1400 [661]	1800 [850]	1730 [816]	1400 [661]	1800 [850]	1730 [816]	1400 [661]	1800 [850]	1730 [816]	1400 [661]	1800 [850]	1730 [816]	1400 [661]			
CFM [L/s]	0.23	0.22	0.18	0.23	0.22	0.18	0.23	0.22	0.18	0.23	0.22	0.18	0.23	0.22	0.18			
DR ①																		
75°F [23.9°C]	Total BTUH [kW]			53.8 [15.8]			50.6 [14.8]			48.5 [14.5]			47.5 [13.9]			46.9 [13.7]		
	Sens BTUH [kW]			39.1 [11.5]			44.4 [13.0]			46.5 [13.6]			41.6 [12.2]			43.0 [12.6]		
	Power			3.1			3.0			3.0			3.0			3.0		
80°F [26.7°C]	Total BTUH [kW]			52.2 [15.3]			49.0 [14.4]			47.9 [14.1]			45.9 [13.5]			45.3 [13.3]		
	Sens BTUH [kW]			38.3 [11.2]			43.6 [12.8]			45.7 [13.4]			40.8 [12.0]			42.2 [12.4]		
	Power			3.2			3.2			3.2			3.1			3.2		
85°F [29.4°C]	Total BTUH [kW]			50.6 [14.8]			47.4 [13.9]			46.3 [13.6]			44.4 [13.0]			43.8 [12.8]		
	Sens BTUH [kW]			37.4 [11.0]			42.7 [12.5]			44.8 [13.1]			40.1 [11.7]			41.5 [12.2]		
	Power			3.4			3.3			3.3			3.3			3.3		
90°F [32.2°C]	Total BTUH [kW]			48.9 [14.3]			45.7 [13.4]			44.6 [13.1]			42.8 [12.5]			42.2 [12.4]		
	Sens BTUH [kW]			36.5 [10.7]			41.9 [12.3]			43.9 [12.9]			39.3 [11.5]			40.7 [11.9]		
	Power			3.5			3.5			3.5			3.4			3.5		
95°F [35°C]	Total BTUH [kW]			47.2 [13.8]			44.0 [12.9]			42.2 [12.4]			41.1 [12.0]			40.5 [11.9]		
	Sens BTUH [kW]			35.6 [10.4]			40.9 [12.0]			42.9 [12.6]			38.5 [11.3]			39.9 [11.7]		
	Power			3.7			3.7			3.7			3.6			3.7		
100°F [37.8°C]	Total BTUH [kW]			45.4 [13.3]			42.2 [12.4]			40.5 [11.9]			39.4 [11.6]			38.8 [11.4]		
	Sens BTUH [kW]			34.7 [10.2]			40.0 [11.7]			41.1 [12.1]			37.6 [11.0]			40.2 [11.8]		
	Power			3.9			3.9			3.9			3.8			3.9		
105°F [40.6°C]	Total BTUH [kW]			43.3 [12.7]			40.4 [11.8]			39.3 [11.5]			37.7 [11.0]			37.1 [10.9]		
	Sens BTUH [kW]			33.1 [9.7]			39.0 [11.4]			39.3 [11.5]			36.8 [10.8]			37.1 [10.9]		
	Power			4.1			4.1			4.1			4.0			4.1		
110°F [43.3°C]	Total BTUH [kW]			41.7 [12.2]			38.5 [11.3]			37.5 [11.0]			35.9 [10.5]			35.3 [10.3]		
	Sens BTUH [kW]			32.7 [9.6]			38.0 [11.1]			37.5 [11.0]			35.9 [10.5]			36.5 [10.7]		
	Power			4.3			4.3			4.3			4.2			4.3		
115°F [46.1°C]	Total BTUH [kW]			39.8 [11.7]			36.6 [10.7]			35.5 [10.4]			34.1 [10.0]			33.4 [10.2]		
	Sens BTUH [kW]			31.7 [9.3]			36.6 [10.7]			35.5 [10.4]			34.1 [10.0]			34.6 [10.2]		
	Power			4.5			4.5			4.5			4.4			4.5		
120°F [48.9°C]	Total BTUH [kW]			37.8 [11.1]			34.7 [10.2]			33.6 [9.8]			32.2 [9.4]			31.6 [9.3]		
	Sens BTUH [kW]			30.6 [9.0]			34.7 [10.2]			33.6 [9.8]			32.2 [9.4]			32.7 [9.6]		
	Power			4.8			4.8			4.8			4.7			4.7		
125°F [51.7°C]	Total BTUH [kW]			35.6 [10.5]			32.7 [9.6]			31.6 [9.3]			30.3 [8.9]			29.7 [8.7]		
	Sens BTUH [kW]			29.6 [8.7]			32.7 [9.6]			31.6 [9.3]			30.3 [8.9]			30.7 [9.0]		
	Power			5.0			5.0			5.0			4.9			5.0		

DR — Depression ratio
 dbE — Entering air dry bulb
 w/E — Entering air wet bulb

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

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

[J Designates Metric Conversions