



MODEL: RHPH Standard Efficiency

FORM NO. PRR-839 REV. 1

Russell® By Rheem Resolute™ Line Packaged Heat Pump



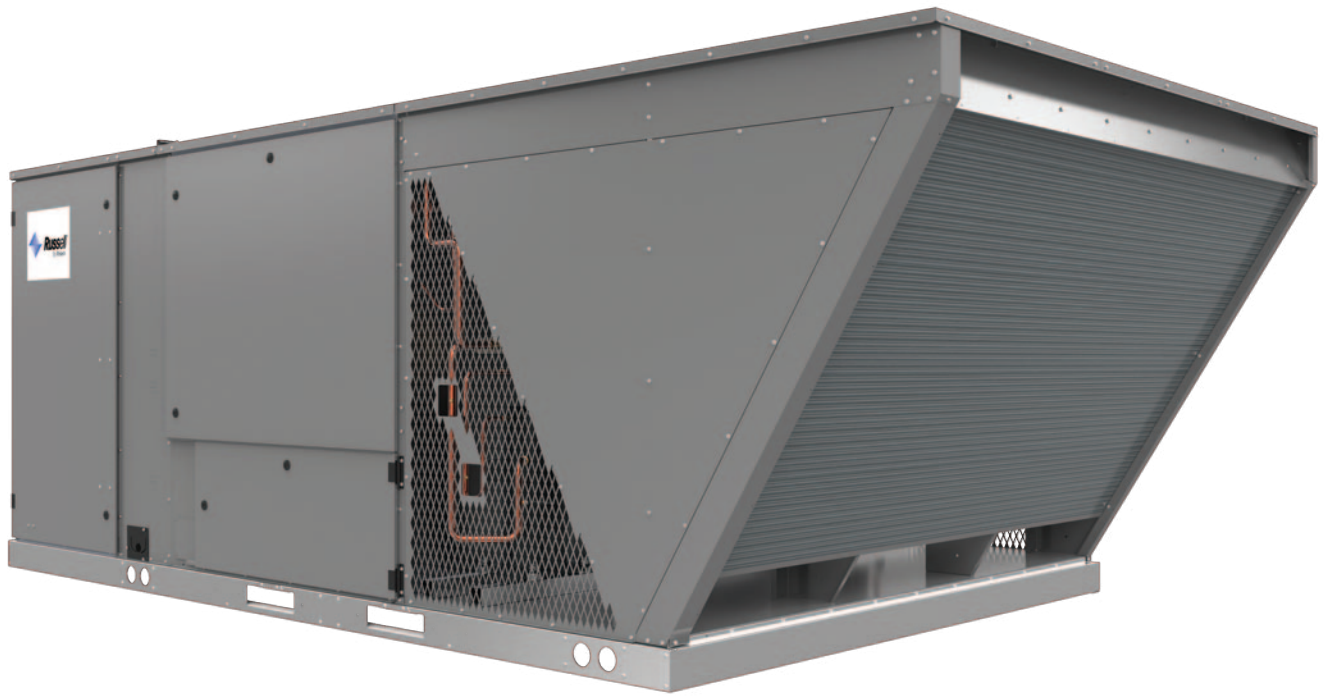
RHPH

- Nominal Sizes 15 and 20 Ton [52.8 and 70.3 kW]
- ASHRAE 90.1-2019 Compliant Model



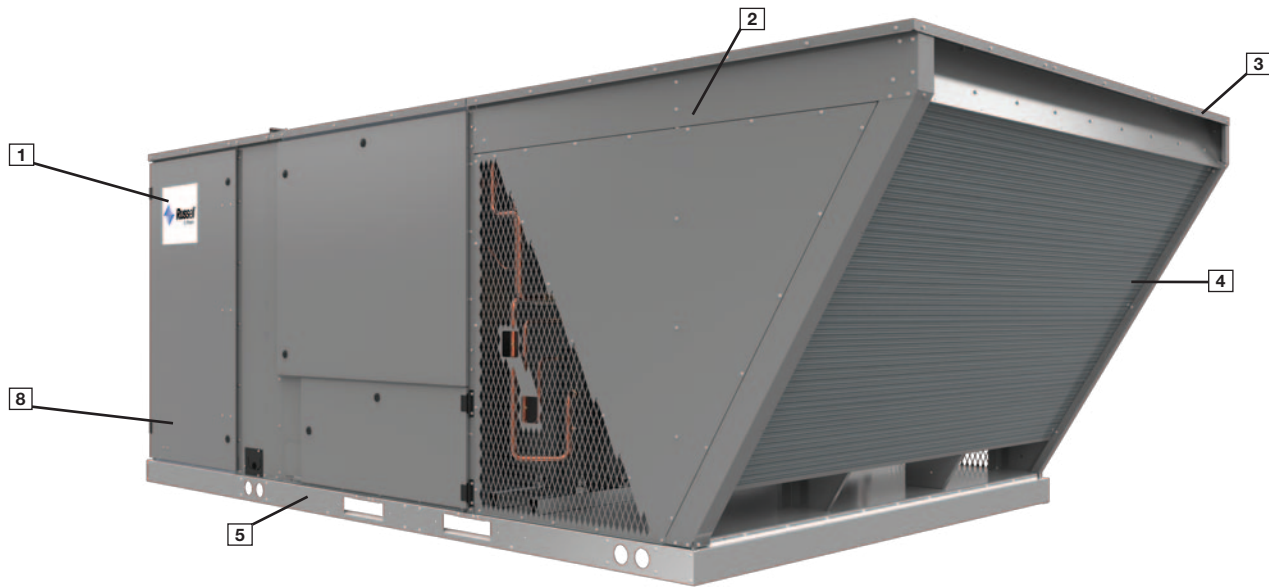
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RHPH STANDARD FEATURES INCLUDE:

- Unit is assembled, wired, charged with R-410A HFC refrigerant and run tested at the factory.
- Scroll compressors with internal line break overload and high-pressure protection.
- Two independent refrigerant circuits each with a scroll compressor provide two stage cooling/heating operation.
- 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.
- Each evaporator and condenser coil is constructed as a single slab to facilitate easy cleaning for maintaining high efficiencies.
- Cooling operation up to 125 degree F ambient.
- Foil faced insulation encapsulated throughout entire unit minimizes airborne fibers from the air stream.
- Hinged major access door with heavy-duty gasketing with 1/4 latches and door retainers are optional.
- Slide Out Indoor fan assembly for added service convenience.
- Powder Paint Finish meets ASTM B117 G90 galvanized steel coated on each side for maximum protection.
- Base pan with drawn supply and return opening for superior water management.
- Convertible airflow – vertical downflow or horizontal sideflow.
- 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, and condenser motors.
- Condenser motors are internally protected, totally enclosed with shaft down design.
- 2 inch filter standard with slide out design.
- 24 volt control system with resettable circuit breakers.
- Colored and labeled wiring.
- Copper tube/Aluminum Fin coils.
- Supplemental electric heat provides 100% efficient heating.
- Variable Frequency Drive (VFD).
- MERV 8 and MERV 13 filters available as an option.
- Compliant with ASHRAE 90.1-2019 and California Title 24.

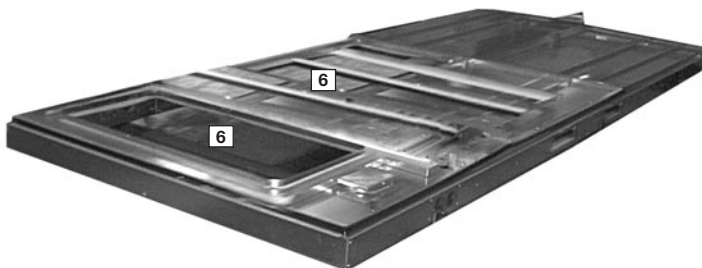


Cabinet and Foundation

Resolute™ Packaged equipment is designed from the ground up with the latest features and benefits required to compete in today's market. The clean design stands alone in the industry and is a testament to the quality, reliability, ease of installation and serviceability that goes into each unit. Outwardly, the large Russell® By Rheem Commercial 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 Russell® By Rheem packaged 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.

Base Pan and Foundation

Anything built to last must start with the right foundation. In this case, the foundation is 14-gauge, commercial-grade, full-perimeter base rails ([5]), which integrate fork slots and rigging holes to save set-up time on the job site. The base pan is stamped, which forms a 1-1/8 flange around the supply and return cover and has eliminated the worry of water entering the conditioned space ([6]). The drainpan ([7]) is made of 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. 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.



Test Standards

During development, each unit was tested to U.L. 1995, AHRI 340/360 and other Russell® By Rheem-required reliability tests. Russell® By 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 ([8]). Contractors can rest assured that when a Russell® By Rheem packaged unit arrives at the job, it is ready to go with a factory charge and quality checks.

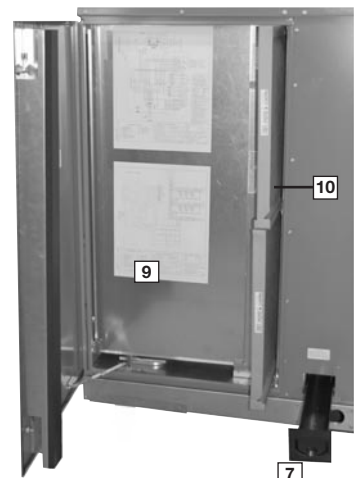
Easy Access

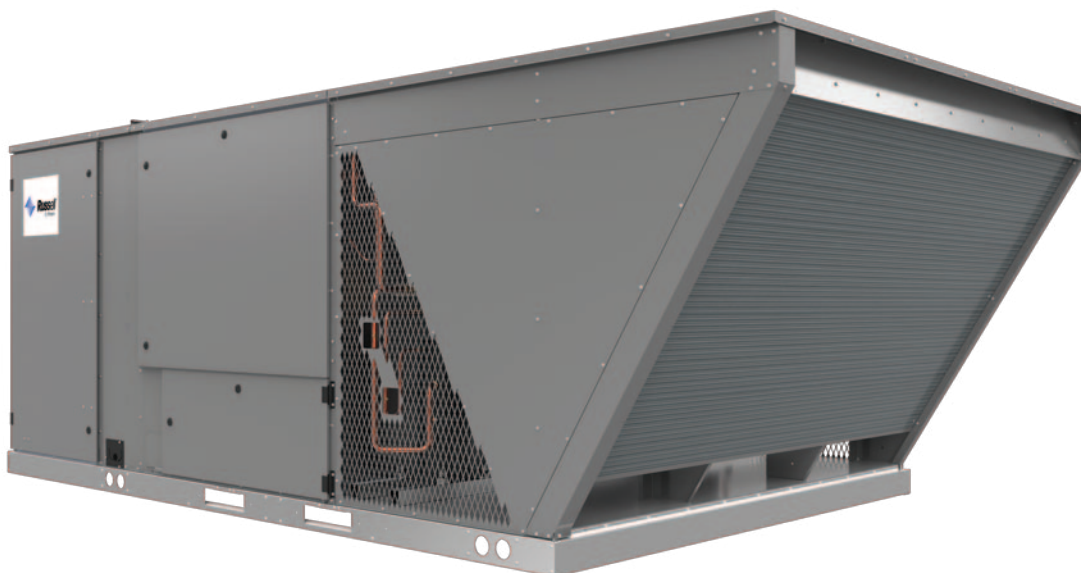
Access to all major compartments is from the front of the unit, including the filter and electrical compartment, blower compartment, heating section, and outdoor section. Each panel is permanently embossed with the compartment name (control/filter access, blower access and furnace access).

Charging Charts, Wiring Diagrams and Labels

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.

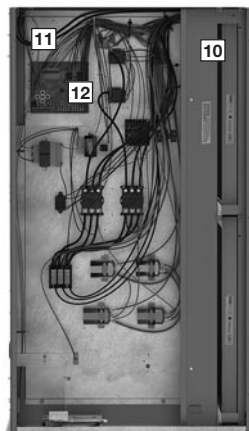
The unit charging chart is located on the inside of the electrical and filter compartment door. Electrical wiring diagrams are found on the control box cover, which allows contractors to move them to more readable locations. To the right of the control box the model and serial number can be found. Having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





Control Box

In the control compartment, components are organized centrally for ease of trouble-shooting (11). 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.



Defrost Control

Enhanced feature demand defrost control has high and low pressure control inputs with unique pressure switch logic built into the micro-processor to provide compressor and system protection without nuisance lock-outs. LED's on the defrost control provide diagnostic information for service personnel (12).

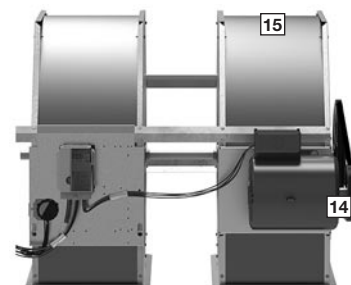
Convenience Outlet and Disconnect Switch

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.



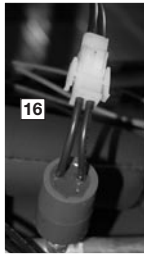
Blower Assembly

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 0 to 6 turns open. Where the demands for the job require high static, Russell® By Rheem has high-static drives available that deliver nominal airflow up to 2 inches 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.



Evaporator Coil

Inside the blower compartment the interlaced evaporator can also be viewed. The evaporator uses enhanced fin technology for maximum heat transfer.

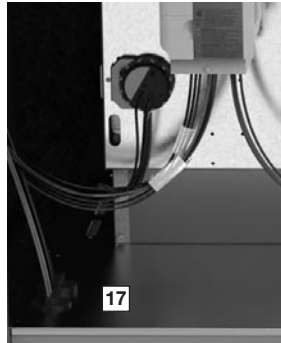


Freezestats

Also in the blower compartment, the optional freezestats (16) protect the compressors if the evaporator gets too cold (below freezing) due to low airflow. The optional freezestats clip on the suction lines near the indoor coil and connect to the low voltage circuit with the use of polarized plugs and removable jumper for easy field or factory installation.

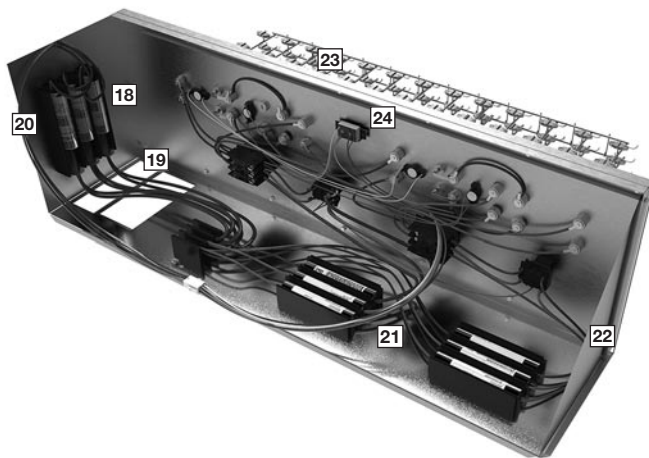
Wire Routing

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.



Heater Compartment

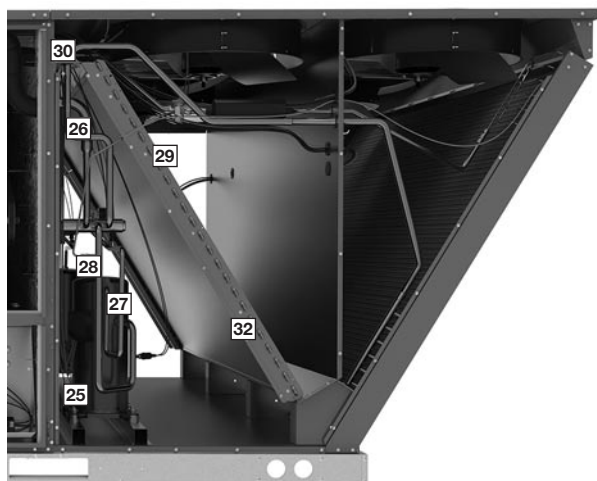
The auxillary heating compartment contains the latest electric furnace technology on the market. The 100% efficient electric furnace can be factory-installed or easily field-installed. Built with ease-of-installation in mind, the electric furnace is completely wired up for slide-in, plug-and-play installation in the field. With choices that range from 18 to 72kW, the contractor is assured to get the correct amount of heating output to meet the designed heating load.



Power hook-up in the field is easy with single-point wiring to a terminal block (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). For increased serviceability, the entire heat kit section is an assembly that can be removed in one piece. (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 Ports

In the outdoor gauge 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. 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. Each factory-installed option is brazed into the appropriate high or low side and wired appropriately. The optional low ambient controls (30) screw to schrader valves on the discharge line. The low-ambient controls allow cooling mode operation of the compressors down to 0 degrees ambient temperature by cycling the outdoor fans based on discharge pressure.

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.

Condenser Technology

The outdoor coil uses the latest enhanced fin design (32) for the most effective method of heat transfer. The outdoor coil is slanted to protect the unit from hail.



Economizers and Dampers

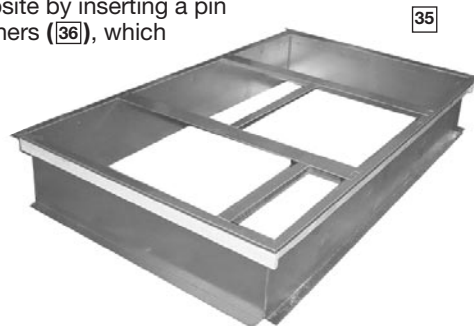
Each unit is designed for both downflow or horizontal applications (33) for job configuration flexibility. The return air compartment can also contain an economizer (34). Two models exist, one for downflow applications, and one for horizontal applications. Each unit is pre-wired for the economizer to allow quick plug-in installation. The downflow economizer is also available as a factory-installed option. Power Exhaust is easily field-installed. The economizer, which provides free cooling when outdoor conditions are suitable and also provides fresh air to meet local requirements, comes standard with single enthalpy controls. The controls can be upgraded to dual enthalpy easily in the field. The direct drive actuator combined with gear drive dampers has eliminated the need for linkage adjustment in the field. The economizer control has a minimum position setpoint, an outdoor-air setpoint, a mix-air setpoint, and a CO₂ setpoint. Barometric relief is standard on all economizers. The power exhaust is housed in the barometric relief opening and is easily slipped in with a plug-in assembly.



Roofcurb

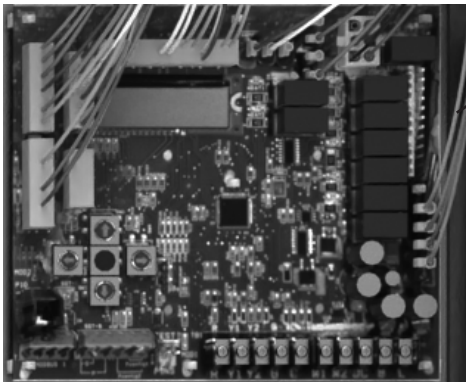
The Russell® By Rheem roofcurb (35) is made for toolless assembly at the jobsite by inserting a pin into the hinged corners (36), which makes the assembly process quick and easy.

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ClearControl™

The optional ClearControl™ system consisting of a rooftop unit controller, temperature sensors, and pressure sensors, allows real-time monitoring and communication between rooftop units. The Rooftop Unit Controller (RTU-C) that is factory mounted and wired into the control panel. The RTU-C is a solid-state, micro-processor-based control board that provides flexible control and extensive diagnostics for all unit functions. The RTU-C, using proportional/integral control algorithms, performs specific unit functions that govern unit operation in response to zone conditions, system temperatures, system pressures, ambient conditions, and electrical inputs. The RTU-C features a 16 x 2 character LCD display and a five-button keypad for local configuration and direct diagnosis of the system (37). 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 unit with the RTU-C 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 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 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 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 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.

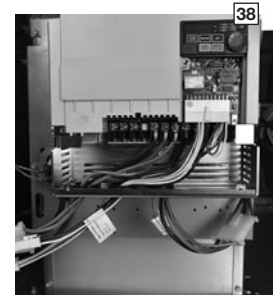
4. Zone Sensor Compatibility — The unit is compatible with a zone sensor and a mechanical or solid state time clock connected to the RTU-C. Extensive unit status and diagnostics are displayed on the LCD screen of the RTU-C.

ComfortAlert®

A factory or field installed Comfort Alert® module is available for power phase-monitoring protection and additional compressor diagnostics. The alarms can be displayed on the RTU-C display or through the (BAS) network.

Variable Frequency Drive

The supply fan Variable Frequency Drive (VFD) (38) optimizes energy usage year round by providing a lower speed for first stage cooling operation, improving IEER's over the conventional constant fan system. Operating in the constant fan mode at the reduced speed can use as little as 1/5 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 meets California Title 24 and ASHRAE 90.1-2016 requirements for multi blower speed control. VFD also ramps up to the desired speed, reducing stress on the supply fan components and noise from a sudden inrush of air. Because the airflow is cut in half during first stage cooling and constant fan operation, noise is much less during these modes of operation.



<u>R</u>	<u>HP</u>	<u>H</u>	<u>2</u>	<u>T</u>	<u>180</u>	<u>A</u>	<u>C</u>	<u>F</u>	<u>00</u>	<u>2</u>	<u>B</u>	<u>A</u>	<u>****</u>
<u>1</u>	<u>23</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7 8 9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13 14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18 19 20 21</u>

1—Brand

R = Russell® By Rheem

2, 3—Unit Type

HP = Packaged HP

4—Cabinet Type

H = Large Commercial

5—Cooling Stages

2 = 2 Stages of Cooling

6—Efficiency Tier

T = Standard Efficiency

7, 8, 9—Capacity

180 = 15 ton

240 = 20 ton

10—Major Series

A = 410A

11—Voltage

C = 3 phase 208-230/60

D = 3 phase 460/60

Y = 3 phase 575/60

12—Drive

F = Belt Drive-VFD Low

G = Belt Drive-VFD Medium

H = Belt Drive-VFD High

13, 14—Supplemental Heat Capacity

00 = No Heat

20 = 20kw

40 = 40kw

60 = 60kw

75 = 75kw

15—Supplemental Heat Configuration

0 = No heat

1 = 1-Stage

2 = 2-Stage

16—Control

B = Core Command™ & Phase Monitor

C = Clear Control™ & Phase Monitor

D = Clear Control™ & Comfort Alert®

17 —Minor Series

A = 1st design

18, 19, 20, 21—Option Code

See next page

FACTORY INSTALLED OPTION CODES FOR RHPH

18				19			20			21	
LV = Louver protection				NP = Non-Powered Convenience Outlet			EC = Economizer			M8 = MERV 8 Filter	
HA = Hinged Access				LF = Low Ambient & Freeze Stat			SS = Supply & Return Smoke			M13 = MERV 13 Filter	
							RS = Return Smoke				
OPTION CODE CHARACTER HIGHLIGHTED											
OPT				OPT			OPT			OPT	
C	HA			A	None		0	None		A	None
D	LV	HA		B	LF		1	EC		D	M8
				C	NP		2	RS		G	M13
				D	LF	NP	3	EC	RS		
							4	SS			
							5	EC	SS		

Example: RHPH2T 180ACG000BAXXXX (where XXXX is factory installed options)

Example: No Options

RHPH2T180ACG000BACA0A

Example: No options except factory installed economizer

RHPH2T180ACG000BACA1A

Example: Options with low ambient/freezestat and no factory installed economizer

RHPH2T180ACG000BACB0A

Example: Options same as above with factory installed economizer

RHPH2T180ACG000BACB1A

To select an RHPH 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—	460 V — 3 Phase — 60 Hz
Total Cooling Capacity—	170,000 BTUH [49.8 kW]
Sensible Cooling Capacity—	140,000 BTUH [41.0 kW]
Heating Capacity—	140,000 BTUH [41.0 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
*Winter Entering Air (for Heating)	20°F [-6.6 °C] DB
*Indoor Air Flow (vertical)—	6,000 CFM [3020 L/s]
External Static Pressure—	1.2 in. WG [.30 kPa]

2. SELECT UNIT TO MEET COOLING REQUIREMENTS.

Since total cooling is within the range of a nominal 15 ton [52.7 kW] unit, use the cooling performance table at 95°F [35.0 °C] DB condenser inlet air. Interpolate between 6025 CFM [2843 L/s] and 4800 CFM [2265 L/s] to determine total and sensible capacity and Depression Ratio for inlet air at 6000 CFM [2843 L/s] indoor air flow (table basis):

Interpolation Formula:

$$BTUH_1 + \left[(CFM - CFM_1) \times \left(\frac{BTUH_2 - BTUH_1}{CFM_2 - CFM_1} \right) \right] = BTUH$$

Total Cooling Capacity=

$$177,900 + \left[(6,000 - 6,025) \times \left(\frac{169,600 - 177,900}{4,800 - 6,025} \right) \right] = 177,731 \text{ BTUH}$$

Total Cooling Capacity = 177,731 BTUH [52.1 kW]

Sensible Cooling Capacity = 149,535 BTUH [43.8 kW]

DR = 0.018

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:

$$Cap_{sensible} + [1.10 \times CFM \times (1 - DR) \times (dbE - 80)]$$

$$149,535 + [1.10 \times 6,000 \times (1 + 0.018) \times (78 - 80)]$$

$$\text{Sensible Cooling Capacity} = 136,097 \text{ BTUH [39.9 kW]}$$

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

Total ESP (external static pressure) per the spec of 1.2 in WG [.30 kPa] includes the system duct and grilles. Add from the table "Component Air Resistance", 0.08 in. WG [.02 kPa] for wet coil and 0.05 in. WG [.01 kPa] for downflow to get an ESP of 1.33 in. WG [.33 kPa]. Using the "Airflow Performance Table", at the specified 6,000 CFM and 1.33 in. WG [.33 kPa] ESP, determine blower motor wattage.

RPM = 785

Motor Wattage = 2731 W

DRIVE = G

4. 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 BHP by the motor efficiency and solving for the difference. Convert this value from Watt to BTUH, multiplying by 3.41 BTUH/Watt:

Motor Wattage = 2731 W

AVG MOTOR EFFICIENCY = 85%

INDOOR BLOWER MOTOR HEAT =

$$\left[\left(\frac{\text{Watt}}{0.85} - \text{Watt} \right) \right] \times 3.41$$

$$= [(2731/0.85) - 2731] \times 3.41 = 1643 \text{ BTUH [.4 kW]}$$

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

$$= 177,731 - 1,643 = 176,088 \text{ BTUH [51.6 kW]}$$

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

$$= 136,097 - 1,643 = 134,454 \text{ BTUH [39.4 kW]}$$

6. SELECT UNIT HEATING CAPACITY

Determine if an auxiliary electric heater is required to meet the heat requirements. Use the heating performance table at 20°F DB Winter Entering Air to determine the heat pump heating capacity. Interpolate between 6025 CFM [2843 L/s] and 4,800 CFM [2265 L/s] to determine the capacity at 6,000 CFM [2831 L/s].

$$\text{Heating Capacity} = 97,809 \text{ BTUH [28.6 kW]}$$

The required heating capacity is 140,000 BTUH [41.0 kW]. An additional electric heater is required to meet this heating requirement. From "Heater Kit" Table, select kW to meet heating capacity requirement; multiply kW by 3412 to convert to BTUH.

Use 20 kW Heater Kit

Heater Kit Model:

RXJJCE20D+

Heater Kit Capacity:

$$68,242 \text{ BTUH [19.9 kW]}$$

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

$$68,242 + 97,809 + 1,643 = 167,694 \text{ BTUH [49.1 kW]}$$

7. CHOOSE MODEL RHPH2T180A with 20kW Electric Heater

[] Designates Metric Conversions

NOM. SIZES 15 TON [52.8 kW] ASHRAE 90.1-2019 COMPLIANT MODELS

Model RHPH2T- Series	180ACF	180ACG	180ADF	180ADG
Cooling Performance^A				CONTINUED →
Gross Cooling Capacity Btu [kW]	178,000 [52.15]	178,000 [52.15]	178,000 [52.15]	178,000 [52.15]
EER	10.6	10.6	10.6	10.6
IEER ^B	13.5	13.5	13.5	13.5
Nominal CFM/AHRI Rated CFM [L/s]	6000/6450 [2831/3044]	6000/6450 [2831/3044]	6000/6450 [2831/3044]	6000/6450 [2831/3044]
AHRI Net Cooling Capacity Btu [kW]	172,000 [50.4]	172,000 [50.4]	172,000 [50.4]	172,000 [50.4]
Net Sensible Capacity Btu [kW]	144,000 [42.19]	144,000 [42.19]	144,000 [42.19]	144,000 [42.19]
Net Latent Capacity Btu [kW]	28,000 [8.2]	28,000 [8.2]	28,000 [8.2]	28,000 [8.2]
Net System Power [kW]	16.71	16.71	16.71	16.71
Heating Performance (Heat Pumps)				
High Temp. Btuh [kW] Rating	162,000 [47.47]	162,000 [47.47]	162,000 [47.47]	162,000 [47.47]
System Power KW / COP	13.66/3.3	13.66/3.3	13.66/3.3	13.66/3.3
Low Temp. Btuh [kW] Rating	94,000 [27.54]	94,000 [27.54]	94,000 [27.54]	94,000 [27.54]
System Power KW / COP	12.48/2.1	12.48/2.1	12.48/2.1	12.48/2.1
Compressor				
No./Type	2/Scroll	2/Scroll	2/Scroll	2/Scroll
Outdoor Sound Rating (dB)^C	91	91	91	91
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	53.3 [4.95]	53.3 [4.95]	53.3 [4.95]	53.3 [4.95]
Rows / FPI [FPcm]	1 / 22 [9]	1 / 22 [9]	1 / 22 [9]	1 / 22 [9]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Indoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	26.67 [2.48]	26.67 [2.48]	26.67 [2.48]	26.67 [2.48]
Rows / FPI [FPcm]	2 / 18 [7]	2 / 18 [7]	2 / 18 [7]	2 / 18 [7]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]
Outdoor Fan—Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	4/24 [609.6]	4/24 [609.6]	4/24 [609.6]	4/24 [609.6]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	6000 [2831]	6000 [2831]	6000 [2831]	6000 [2831]
No. Motors/HP	4 at 1/3 HP	4 at 1/3 HP	4 at 1/3 HP	4 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/No. Speeds	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)
No. Speeds	Single	Single	Single	Single
No. Motors	1	1	1	1
Motor HP	3	5	3	5
Motor RPM	1725	1755	1725	1755
Motor Frame Size	56	184	56	184
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. (Sys. 1/Sys. 2) [g]	204/200 [5783/5670]	204/200 [5783/5670]	204/200 [5783/5670]	204/200 [5783/5670]
Weights				
Net Weight lbs. [kg]	1826 [828]	1855 [841]	1958 [888]	1987 [901]
Ship Weight lbs. [kg]	1926 [874]	1955 [887]	2058 [934]	2087 [947]

See Page 16 for Notes.

[] Designates Metric Conversions

NOM. SIZES 15 TON [52.8 kW] ASHRAE 90.1-2019 COMPLIANT MODELS

Model RHPH2T- Series	180AYF	180AYG	240ACF	240ACG
Cooling Performance^A				CONTINUED →
Gross Cooling Capacity Btu [kW]	178,000 [52.15]	178,000 [52.15]	246,000 [72.08]	246,000 [72.08]
EER	10.6	10.6	9.5	9.5
IEER ^B	13.5	13.5	12.5	12.5
Nominal CFM/AHRI Rated CFM [L/s]	6000/6450 [2831/3044]	6000/6450 [2831/3044]	8000/8200 [3775/3870]	8000/8200 [3775/3870]
AHRI Net Cooling Capacity Btu [kW]	172,000 [50.4]	172,000 [50.4]	240,000 [70.32]	240,000 [70.32]
Net Sensible Capacity Btu [kW]	144,000 [42.19]	144,000 [42.19]	188,000 [55.08]	188,000 [55.08]
Net Latent Capacity Btu [kW]	28,000 [8.2]	28,000 [8.2]	52,000 [15.24]	52,000 [15.24]
Net System Power [kW]	16.71	16.71	22.86	22.86
Heating Performance (Heat Pumps)				
High Temp. Btuh [kW] Rating	162,000 [47.47]	162,000 [47.47]	236,000 [69.15]	236,000 [69.15]
System Power KW / COP	13.66/3.3	13.66/3.3	19.66/3.3	19.66/3.3
Low Temp. Btuh [kW] Rating	94,000 [27.54]	94,000 [27.54]	136,000 [39.85]	136,000 [39.85]
System Power KW / COP	12.48/2.1	12.48/2.1	17.63/2.1	17.63/2.1
Compressor				
No./Type	2/Scroll	2/Scroll	2/Scroll	2/Scroll
Outdoor Sound Rating (dB)^C	91	91	91	91
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	53.3 [4.95]	53.3 [4.95]	53.3 [4.95]	53.3 [4.95]
Rows / FPI [FPcm]	1 / 22 [9]	1 / 22 [9]	2 / 18 [7]	2 / 18 [7]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Indoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	26.67 [2.48]	26.67 [2.48]	26.67 [2.48]	26.67 [2.48]
Rows / FPI [FPcm]	2 / 18 [7]	2 / 18 [7]	3 / 13 [5]	3 / 13 [5]
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]	4/24 [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]	6000 [2831]	6000 [2831]	6000 [2831]	6000 [2831]
No. Motors/HP	4 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/No. Speeds	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)
No. Speeds	Single	Single	Single	Single
No. Motors	1	1	1	1
Motor HP	3	5	5	7 1/2
Motor RPM	1725	1755	1755	1760
Motor Frame Size	56	184	184	213
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. (Sys. 1/Sys. 2) [g]	204/200 [5783/5670]	204/200 [5783/5670]	340/328 [9639/9299]	340/328 [9639/9299]
Weights				
Net Weight lbs. [kg]	1826 [828]	1855 [841]	1865 [846]	1894 [859]
Ship Weight lbs. [kg]	1926 [874]	1955 [887]	1965 [891]	1994 [904]

See Page 16 for Notes.

[] Designates Metric Conversions

NOM. SIZES 15 TON [52.8 kW] ASHRAE 90.1-2019 COMPLIANT MODELS

Model RHPH2T- Series	240ACH	240ADF	240ADG	240ADH
Cooling Performance^A				CONTINUED →
Gross Cooling Capacity Btu [kW]	246,000 [72.08]	246,000 [72.08]	246,000 [72.08]	246,000 [72.08]
EER	9.5	9.5	9.5	9.5
IEER ^B	12.5	12.5	12.5	12.5
Nominal CFM/AHRI Rated CFM [L/s]	8000/8200 [3775/3870]	8000/8200 [3775/3870]	8000/8200 [3775/3870]	8000/8200 [3775/3870]
AHRI Net Cooling Capacity Btu [kW]	240,000 [70.32]	240,000 [70.32]	240,000 [70.32]	240,000 [70.32]
Net Sensible Capacity Btu [kW]	188,000 [55.08]	188,000 [55.08]	188,000 [55.08]	188,000 [55.08]
Net Latent Capacity Btu [kW]	52,000 [15.24]	52,000 [15.24]	52,000 [15.24]	52,000 [15.24]
Net System Power [kW]	22.86	22.86	22.86	22.86
Heating Performance (Heat Pumps)				
High Temp. Btuh [kW] Rating	236,000 [69.15]	236,000 [69.15]	236,000 [69.15]	236,000 [69.15]
System Power KW / COP	19.66/3.3	19.66/3.3	19.66/3.3	19.66/3.3
Low Temp. Btuh [kW] Rating	136,000 [39.85]	136,000 [39.85]	136,000 [39.85]	136,000 [39.85]
System Power KW / COP	17.63/2.1	17.63/2.1	17.63/2.1	17.63/2.1
Compressor				
No./Type	2/Scroll	2/Scroll	2/Scroll	2/Scroll
Outdoor Sound Rating (dB)^C	91	91	91	91
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	53.3 [4.95]	53.3 [4.95]	53.3 [4.95]	53.3 [4.95]
Rows / FPI [FPcm]	2 / 18 [7]	2 / 18 [7]	2 / 18 [7]	2 / 18 [7]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Indoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	26.67 [2.48]	26.67 [2.48]	26.67 [2.48]	26.67 [2.48]
Rows / FPI [FPcm]	3 / 13 [5]	3 / 13 [5]	3 / 13 [5]	3 / 13 [5]
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]	6/24 [609.6]	6/24 [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]	6000 [2831]	6000 [2831]	6000 [2831]	6000 [2831]
No. Motors/HP	6 at 1/3 HP	6 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/No. Speeds	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)
No. Speeds	Single	Single	Single	Single
No. Motors	1	1	1	1
Motor HP	7 1/2	5	7 1/2	7 1/2
Motor RPM	1760	1755	1760	1760
Motor Frame Size	213	184	213	213
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. (Sys. 1/Sys. 2) [g]	340/328 [9639/9299]	340/328 [9639/9299]	340/328 [9639/9299]	340/328 [9639/9299]
Weights				
Net Weight lbs. [kg]	1894 [859]	1865 [846]	1894 [859]	1894 [859]
Ship Weight lbs. [kg]	1994 [904]	1965 [891]	1994 [904]	1994 [904]

See Page 16 for Notes.

[] Designates Metric Conversions

NOM. SIZES 15 TON [52.8 kW] ASHRAE 90.1-2019 COMPLIANT MODELS

Model RHPH2T- Series	240AYF	240AYG	240AYH
Cooling Performance^A			
Gross Cooling Capacity Btu [kW]	246,000 [72.08]	246,000 [72.08]	246,000 [72.08]
EER	9.5	9.5	9.5
IEER ^B	12.5	12.5	12.5
Nominal CFM/AHRI Rated CFM [L/s]	8000/8200 [3775/3870]	8000/8200 [3775/3870]	8000/8200 [3775/3870]
AHRI Net Cooling Capacity Btu [kW]	240,000 [70.32]	240,000 [70.32]	240,000 [70.32]
Net Sensible Capacity Btu [kW]	188,000 [55.08]	188,000 [55.08]	188,000 [55.08]
Net Latent Capacity Btu [kW]	52,000 [15.24]	52,000 [15.24]	52,000 [15.24]
Net System Power [kW]	22.86	22.86	22.86
Heating Performance (Heat Pumps)			
High Temp. Btuh [kW] Rating	236,000 [69.15]	236,000 [69.15]	236,000 [69.15]
System Power KW / COP	19.66/3.3	19.66/3.3	19.66/3.3
Low Temp. Btuh [kW] Rating	136,000 [39.85]	136,000 [39.85]	136,000 [39.85]
System Power KW / COP	17.63/2.1	17.63/2.1	17.63/2.1
Compressor			
No./Type	2/Scroll	2/Scroll	2/Scroll
Outdoor Sound Rating (dB)^C			
	91	91	91
Outdoor Coil—Fin Type			
Tube Type	Louvered	Louvered	Louvered
Tube Size in. [mm]	Rifled	Rifled	Rifled
Tube Size in. [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	53.3 [4.95]	53.3 [4.95]	53.3 [4.95]
Rows / FPI [FPcm]	2 / 18 [7]	2 / 18 [7]	2 / 18 [7]
Refrigerant Control	TX Valves	TX Valves	TX Valves
Indoor Coil—Fin Type			
Tube Type	Louvered	Louvered	3 / 13 [5]
Tube Type	Rifled	Rifled	Rifled
Tube Size in. [mm]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	26.67 [2.48]	26.67 [2.48]	26.67 [2.48]
Rows / FPI [FPcm]	3 / 13 [5]	3 / 13 [5]	3 / 13 [5]
Refrigerant Control	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]
Outdoor Fan—Type			
	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	6/24 [609.6]	6/24 [609.6]	6/24 [609.6]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1
CFM [L/s]	6000 [2831]	6000 [2831]	6000 [2831]
No. Motors/HP	6 at 1/3 HP	6 at 1/3 HP	6 at 1/3 HP
Motor RPM	1075	1075	1075
Indoor Fan—Type			
	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	2/18x9 [457x229]	2/18x9 [457x229]	2/18x9 [457x229]
Drive Type/No. Speeds	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)
No. Speeds	Single	Single	Single
No. Motors	1	1	1
Motor HP	5	7 1/2	7 1/2
Motor RPM	1755	1760	1760
Motor Frame Size	184	213	213
Filter—Type			
	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]			
	340/328 [9639/9299]	340/328 [9639/9299]	340/328 [9639/9299]
Weights			
Net Weight lbs. [kg]	1865 [846]	1894 [859]	1894 [859]
Ship Weight lbs. [kg]	1965 [891]	1994 [904]	1994 [904]

See Page 16 for Notes.

[] Designates Metric Conversions

NOTES:

- A. Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to $\pm 20\%$ of nominal cfm. Units are certified in accordance with the Unitary Air Source Heat Pump Equipment certification program, which is based on AHRI Standard 210/240 or 340/360.
- B. EER and Integrated Energy Efficiency Ratio (IEER) are rated in accordance with AHRI Standard 340/360.
- C. Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

COOLING PERFORMANCE DATA — RHPH2T180A

wbE		ENTERING INDOOR AIR @ 80°F [26.7°C] dbE ①												61°F [16.1°C]				59°F [15.0°C]			
		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]			
CFM [L/s]		7200 [3398]				7200 [3398]				7200 [3398]				7200 [3398]				7200 [3398]			
DR ①		0.05				0.05				0.05				0.05				0.05			
Total BTUH [kW]		211.4 [61.9]				203.0 [59.5]				198.4 [58.2]				197.6 [57.9]				197.7 [57.9]			
Sens BTUH [kW]		141.1 [41.3]				167.6 [49.1]				187.0 [54.8]				194.0 [56.9]				197.7 [57.9]			
Power		12.5				12.4				12.2				12.2				12.1			
Total BTUH [kW]		206.7 [60.6]				198.4 [58.1]				193.8 [56.8]				193.0 [56.5]				193.1 [56.6]			
Sens BTUH [kW]		139.0 [40.7]				165.5 [48.5]				184.9 [54.2]				191.9 [56.2]				193.1 [56.6]			
Power		13.1				13.0				12.9				12.8				12.7			
Total BTUH [kW]		201.6 [59.1]				193.2 [56.6]				188.7 [55.3]				187.8 [55.0]				188.0 [55.1]			
Sens BTUH [kW]		136.7 [40.0]				163.2 [47.8]				182.6 [53.5]				187.8 [55.0]				188.0 [55.1]			
Power		13.8				13.7				13.5				13.5				13.4			
Total BTUH [kW]		196.1 [57.5]				187.7 [55.0]				183.1 [53.7]				182.3 [53.4]				182.4 [53.4]			
Sens BTUH [kW]		134.1 [39.3]				160.7 [47.1]				180.1 [52.8]				182.3 [53.4]				182.4 [53.4]			
Power		14.5				14.4				14.3				14.2				14.1			
Total BTUH [kW]		190.0 [55.7]				181.6 [53.2]				177.1 [51.9]				176.2 [51.6]				176.3 [51.7]			
Sens BTUH [kW]		131.4 [38.5]				158.0 [46.3]				177.1 [51.9]				176.2 [51.6]				176.3 [51.7]			
Power		15.3				15.1				15.0				15				14.9			
Total BTUH [kW]		183.5 [53.8]				175.1 [51.3]				170.5 [50.0]				169.7 [49.7]				169.8 [49.8]			
Sens BTUH [kW]		128.5 [37.7]				155.1 [45.4]				165.5 [48.5]				169.7 [49.7]				169.8 [49.8]			
Power		16.1				16				15.8				15.8				15.7			
Total BTUH [kW]		176.5 [51.7]				168.1 [49.3]				163.5 [47.9]				162.7 [47.7]				162.8 [47.7]			
Sens BTUH [kW]		125.4 [36.7]				151.9 [44.5]				160.2 [46.9]				162.7 [47.7]				162.8 [47.7]			
Power		16.9				16.8				16.7				16.6				16.6			
Total BTUH [kW]		169.0 [49.5]				160.6 [47.1]				156.1 [45.7]				155.2 [45.5]				155.3 [45.5]			
Sens BTUH [kW]		122.0 [35.8]				148.6 [43.5]				156.1 [45.7]				155.2 [45.5]				155.3 [45.5]			
Power		17.9				17.7				17.6				17.5				17.5			
Total BTUH [kW]		161.1 [47.2]				152.7 [44.8]				148.1 [43.4]				147.3 [43.2]				147.4 [43.2]			
Sens BTUH [kW]		118.5 [34.7]				145.1 [42.5]				148.1 [43.4]				147.3 [43.2]				147.4 [43.2]			
Power		18.8				18.7				18.6				18.5				18.4			
Total BTUH [kW]		152.7 [44.7]				144.3 [42.3]				139.7 [41.0]				138.9 [40.7]				139.0 [40.7]			
Sens BTUH [kW]		114.8 [33.6]				141.3 [41.4]				139.7 [41.0]				138.9 [40.7]				139.0 [40.7]			
Power		19.8				19.7				19.6				19.5				19.4			
Total BTUH [kW]		143.8 [42.1]				135.4 [39.7]				130.9 [38.4]				130.0 [38.1]				130.1 [38.1]			
Sens BTUH [kW]		110.8 [32.5]				135.4 [39.7]				128.2 [37.6]				127.3 [37.3]				127.5 [37.3]			
Power		20.9				20.7				20.6				20.6				20.5			

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 x CFM x (1 – DR) x (dbE – 80)].

[] Designates Metric Conversions

HEATING PERFORMANCE DATA—RHPH2T180A

IDB			60°F [15.5°C]			70°F [21.1°C]			80°F [26.7°C]		
CFM [L/s]			7200 [3398]	6450 [3044]	4800 [2265]	7200 [3398]	6450 [3044]	4800 [2265]	7200 [3398]	6450 [3044]	4800 [2265]
OUTDOOR DRY BULB TEMPERATURE °F [°C]	0 [-17.8]	Total BTUH [kW] Power	60.0 [17.6] 8.5	59.5 [17.4] 8.6	58.4 [17.1] 8.9	55.9 [16.4] 9.7	55.4 [16.2] 9.8	54.4 [15.9] 10.2	51.7 [15.2] 10.8	51.3 [15.0] 11.0	50.3 [14.8] 11.4
	5 [-15]	Total BTUH [kW] Power	70.8 [20.8] 8.7	70.2 [20.6] 8.8	69.0 [20.2] 9.1	66.7 [19.5] 9.9	66.1 [19.4] 10.1	64.9 [19.0] 10.4	62.5 [18.3] 11.1	62.0 [18.2] 11.2	60.9 [17.8] 11.6
	10 [-12.2]	Total BTUH [kW] Power	81.6 [23.9] 8.9	81.0 [23.7] 9.1	79.5 [23.3] 9.4	77.5 [22.7] 10.1	76.8 [22.5] 10.3	75.4 [22.1] 10.6	73.3 [21.5] 11.3	72.7 [21.3] 11.5	71.4 [20.9] 11.8
	15 [-9.4]	Total BTUH [kW] Power	92.4 [27.1] 9.2	91.7 [26.9] 9.3	90.0 [26.4] 9.6	88.3 [25.9] 10.4	87.6 [25.7] 10.5	86.0 [25.2] 10.9	84.1 [24.7] 11.5	83.4 [24.4] 11.7	81.9 [24.0] 12.0
	20 [-6.7]	Total BTUH [kW] Power	103.2 [30.3] 9.4	102.4 [30.0] 9.5	100.5 [29.5] 9.8	99.1 [29.0] 10.6	98.3 [28.8] 10.7	96.5 [28.3] 11.1	94.9 [27.8] 11.7	94.2 [27.6] 11.9	92.4 [27.1] 12.3
	25 [-3.9]	Total BTUH [kW] Power	114.1 [33.4] 9.6	113.1 [33.1] 9.7	111.1 [32.5] 10.0	109.9 [32.2] 10.8	109.0 [31.9] 11.0	107.0 [31.4] 11.3	105.7 [31.0] 11.9	104.9 [30.7] 12.1	103.0 [30.2] 12.5
	30 [-1.1]	Total BTUH [kW] Power	124.9 [36.6] 9.8	123.8 [36.3] 10.0	121.6 [35.6] 10.3	120.7 [35.4] 11.0	119.7 [35.1] 11.2	117.5 [34.4] 11.5	116.5 [34.2] 12.2	115.6 [33.9] 12.3	113.5 [33.3] 12.7
	35 [1.7]	Total BTUH [kW] Power	135.7 [39.8] 10.0	134.6 [39.4] 10.2	132.1 [38.7] 10.5	131.5 [38.5] 11.2	130.4 [38.2] 11.4	128.0 [37.5] 11.8	127.4 [37.3] 12.4	126.3 [37.0] 12.6	124.0 [36.3] 13.0
	40 [4.4]	Total BTUH [kW] Power	146.5 [42.9] 10.2	145.3 [42.6] 10.4	142.6 [41.8] 10.7	142.3 [41.7] 11.5	141.1 [41.4] 11.6	138.6 [40.6] 12.0	138.2 [40.5] 12.6	137.0 [40.2] 12.8	134.5 [39.4] 13.2
	45 [7.2]	Total BTUH [kW] Power	157.3 [46.1] 10.5	156.0 [45.7] 10.6	153.1 [44.9] 11.0	153.1 [44.9] 11.7	151.9 [44.5] 11.9	149.1 [43.7] 12.2	149.0 [43.7] 12.8	147.7 [43.3] 13.0	145.0 [42.5] 13.4
	50 [10]	Total BTUH [kW] Power	168.1 [49.3] 10.7	166.7 [48.9] 10.8	163.7 [48.0] 11.2	163.9 [48.0] 11.9	162.6 [47.6] 12.1	159.6 [46.8] 12.5	159.8 [46.8] 13.0	158.5 [46.4] 13.2	155.6 [45.6] 13.7

IDB—Indoor air dry bulb

[] Designates Metric Conversions

COOLING PERFORMANCE DATA — RHPH2T240A

		ENTERING INDOOR AIR @ 80°F [26.7°C] dbE ①											
wB E		71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]			61°F [16.1°C]		
CFM [L/s]		9600 [4531]	8200 [3870]	6400 [3020]	9600 [4531]	8200 [3870]	6400 [3020]	9600 [4531]	8200 [3870]	6400 [3020]	9600 [4531]	8200 [3870]	6400 [3020]
DR ①		0.09	0.06	-0.01	0.09	0.06	-0.01	0.09	0.06	-0.01	0.09	0.06	-0.01
75 [23.9]	Total BTUH [kW]	292.2 [85.6]	283.4 [83.1]	272.1 [79.7]	280.9 [82.3]	272.4 [79.8]	261.5 [76.6]	275.3 [80.7]	267.0 [78.3]	256.4 [75.1]	275.5 [80.7]	267.3 [78.3]	256.6 [75.2]
	Sens BTUH [kW]	249.9 [73.2]	231.4 [67.8]	207.7 [60.9]	238.0 [69.7]	220.4 [64.6]	197.8 [58.0]	232.2 [68.0]	215.0 [63.0]	193.0 [56.6]	232.4 [68.1]	215.3 [63.1]	193.2 [56.6]
	Power	18.4	18.1	17.7	18.1	17.8	17.5	17.8	17.6	17.2	17.7	17.4	17.1
80 [26.7]	Total BTUH [kW]	286.5 [83.9]	277.8 [81.4]	266.7 [78.2]	275.1 [80.6]	266.8 [78.2]	256.2 [75.1]	269.5 [79.0]	261.4 [76.6]	251.0 [73.5]	269.8 [79.1]	261.6 [76.7]	251.2 [73.6]
	Sens BTUH [kW]	243.8 [71.4]	225.8 [66.2]	202.7 [59.4]	231.9 [68.0]	214.8 [62.9]	192.8 [56.5]	226.1 [66.3]	209.4 [61.4]	188.0 [55.1]	226.3 [66.3]	209.6 [61.4]	188.2 [55.1]
	Power	19.1	18.9	18.5	18.9	18.6	18.2	18.6	18.3	18.0	18.5	18.2	17.8
85 [29.4]	Total BTUH [kW]	280.0 [82.0]	271.5 [79.6]	260.7 [76.4]	268.6 [78.7]	260.5 [76.3]	250.1 [73.3]	263.0 [77.1]	255.1 [74.8]	244.9 [71.8]	263.3 [77.1]	255.3 [74.8]	245.2 [71.8]
	Sens BTUH [kW]	237.0 [69.5]	219.5 [64.3]	197.0 [57.7]	225.1 [66.0]	208.5 [61.1]	187.1 [54.8]	219.3 [64.3]	203.1 [59.5]	182.3 [53.4]	219.5 [64.3]	203.3 [59.6]	182.5 [53.5]
	Power	20.0	19.7	19.3	19.7	19.4	19.0	19.4	19.1	18.8	19.3	19.0	18.6
90 [32.2]	Total BTUH [kW]	272.8 [79.9]	264.5 [77.5]	254.0 [74.4]	261.4 [76.6]	253.5 [74.3]	243.4 [71.3]	255.8 [75.0]	248.1 [72.7]	238.2 [69.8]	256.1 [75.0]	248.4 [72.8]	238.5 [69.9]
	Sens BTUH [kW]	229.5 [67.2]	212.5 [62.3]	190.8 [55.9]	217.6 [63.8]	201.5 [59.1]	180.9 [53.0]	211.8 [62.1]	196.1 [57.5]	176.0 [51.6]	212.0 [62.1]	196.4 [57.5]	176.2 [51.6]
	Power	20.8	20.5	20.1	20.6	20.2	19.9	20.3	20.0	19.6	20.1	19.9	19.5
95 [35]	Total BTUH [kW]	264.9 [77.6]	256.9 [75.3]	246.6 [72.3]	253.5 [74.3]	245.9 [72.0]	236.0 [69.2]	247.9 [72.7]	240.5 [70.5]	230.9 [67.7]	248.2 [72.7]	240.7 [70.5]	231.1 [67.7]
	Sens BTUH [kW]	221.2 [64.8]	204.9 [60.0]	183.9 [53.9]	209.3 [61.3]	193.9 [56.8]	174.0 [51.0]	203.5 [59.6]	188.5 [55.2]	169.2 [49.6]	203.7 [59.7]	188.7 [55.3]	169.4 [49.6]
	Power	21.7	21.4	21.0	21.5	21.1	20.7	21.2	20.9	20.5	21.1	20.8	20.3
100 [37.8]	Total BTUH [kW]	256.2 [75.1]	248.5 [72.8]	238.6 [69.9]	244.9 [71.8]	237.5 [69.6]	228.0 [66.8]	239.3 [70.1]	232.1 [68.0]	222.9 [65.3]	239.6 [70.2]	232.3 [68.1]	223.1 [65.4]
	Sens BTUH [kW]	212.2 [62.2]	196.5 [57.6]	176.4 [51.7]	200.3 [58.7]	185.5 [54.4]	166.5 [48.8]	194.5 [57.0]	180.1 [52.8]	161.7 [47.4]	194.7 [57.1]	180.3 [52.8]	161.9 [47.4]
	Power	22.7	22.4	21.9	22.4	22.1	21.7	22.2	21.8	21.4	22.0	21.7	21.3
105 [40.6]	Total BTUH [kW]	246.9 [72.4]	239.5 [70.2]	229.9 [67.4]	235.6 [69.0]	228.5 [66.9]	219.3 [64.3]	230.0 [67.4]	223.1 [65.4]	214.2 [62.8]	230.2 [67.5]	223.3 [65.4]	214.4 [62.8]
	Sens BTUH [kW]	202.4 [59.3]	187.5 [54.9]	168.3 [49.3]	190.5 [55.8]	176.5 [51.7]	158.4 [46.4]	184.7 [54.1]	171.1 [50.1]	153.6 [45.0]	185.0 [54.2]	171.3 [50.2]	153.8 [45.1]
	Power	23.7	23.4	22.9	23.4	23.1	22.7	23.2	22.8	22.4	23.0	22.7	22.3
110 [43.3]	Total BTUH [kW]	236.9 [69.4]	229.8 [67.3]	220.6 [64.6]	225.5 [66.1]	218.7 [64.1]	210.0 [61.5]	220.0 [64.5]	213.4 [62.5]	204.8 [60.0]	220.2 [64.5]	213.6 [62.6]	205.1 [60.1]
	Sens BTUH [kW]	191.9 [56.2]	177.8 [52.1]	159.6 [46.8]	180.0 [52.8]	166.7 [48.9]	149.7 [43.9]	174.2 [51.1]	161.4 [47.3]	144.8 [42.4]	174.5 [51.1]	161.6 [47.4]	145.0 [42.5]
	Power	24.8	24.4	23.9	24.5	24.1	23.7	24.2	23.9	23.4	24.1	23.8	23.3
115 [46.1]	Total BTUH [kW]	226.2 [66.3]	219.4 [64.3]	210.6 [61.7]	214.8 [62.9]	208.3 [61.1]	200.0 [58.6]	209.3 [61.3]	203.0 [59.5]	194.9 [57.1]	209.5 [61.4]	203.2 [59.5]	195.1 [57.2]
	Sens BTUH [kW]	180.7 [53.0]	167.4 [49.0]	150.2 [44.0]	168.8 [49.5]	156.3 [45.8]	140.3 [41.1]	163.0 [47.8]	151.0 [44.2]	135.5 [39.7]	163.2 [47.8]	151.2 [44.3]	135.7 [39.8]
	Power	25.9	25.5	25.0	25.6	25.2	24.8	25.4	25.0	24.5	25.2	24.8	24.4
120 [48.9]	Total BTUH [kW]	214.7 [62.9]	208.3 [61.0]	200.0 [58.6]	203.4 [59.6]	197.2 [57.8]	189.4 [55.5]	197.8 [58.0]	191.9 [56.2]	184.2 [54.0]	198.1 [58.0]	192.1 [56.3]	184.4 [54.0]
	Sens BTUH [kW]	168.7 [49.4]	156.3 [45.8]	140.3 [41.1]	156.8 [46.0]	145.2 [42.6]	130.4 [38.2]	151.0 [44.3]	139.9 [41.0]	125.5 [36.8]	151.3 [44.3]	140.1 [41.1]	125.7 [36.8]
	Power	27.1	26.7	26.1	26.8	26.4	25.9	26.5	26.1	25.6	26.4	26.0	25.5
125 [51.7]	Total BTUH [kW]	202.6 [59.4]	196.5 [57.6]	188.7 [55.3]	191.2 [56.0]	185.5 [54.4]	178.1 [52.2]	185.7 [54.4]	180.1 [52.8]	172.9 [50.7]	185.9 [54.5]	180.3 [52.8]	173.1 [50.7]
	Sens BTUH [kW]	156.0 [45.7]	144.5 [42.3]	129.7 [38.0]	144.1 [42.2]	133.5 [39.1]	119.8 [35.1]	138.3 [40.5]	128.1 [37.5]	115.0 [33.7]	138.5 [40.6]	128.3 [37.6]	115.2 [33.7]
	Power	28.3	27.8	27.3	28.0	27.6	27.0	27.7	27.3	26.8	27.6	27.2	26.7

DR — Depression ratio
dbE — Entering air dry bulb
wB E — 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

HEATING PERFORMANCE DATA—RHPH2T240A

IDB			60°F [15.5°C]			70°F [21.1°C]			80°F [26.7°C]		
CFM [L/s]			9600 [4531]	8200 [3870]	6400 [3020]	9600 [4531]	8200 [3870]	6400 [3020]	9600 [4531]	8200 [3870]	6400 [3020]
OUTDOOR DRY BULB TEMPERATURE °F [°C]	0 [-17.8]	Total BTUH [kW] Power	74.9 [21.9] 12.4	74.0 [21.7] 12.6	72.8 [21.3] 13.0	67.3 [19.7] 13.9	66.5 [19.5] 14.2	65.5 [19.2] 14.6	59.7 [17.5] 15.4	59.0 [17.3] 15.8	58.1 [17.0] 16.2
	5 [-15]	Total BTUH [kW] Power	92.5 [27.1] 12.8	91.4 [26.8] 13.0	90.0 [26.4] 13.4	84.9 [24.9] 14.3	83.9 [24.6] 14.6	82.6 [24.2] 15.0	77.3 [22.7] 15.8	76.4 [22.4] 16.2	75.2 [22.0] 16.6
	10 [-12.2]	Total BTUH [kW] Power	110.1 [32.3] 13.2	108.8 [31.9] 13.4	107.1 [31.4] 13.8	102.5 [30.1] 14.7	101.3 [29.7] 15.0	99.7 [29.2] 15.4	95.0 [27.8] 16.2	93.8 [27.5] 16.5	92.3 [27.1] 17.0
	15 [-9.4]	Total BTUH [kW] Power	127.8 [37.4] 13.5	126.2 [37.0] 13.8	124.2 [36.4] 14.2	120.2 [35.2] 15.1	118.7 [34.8] 15.4	116.9 [34.2] 15.8	112.6 [33.0] 16.6	111.2 [32.6] 16.9	109.5 [32.1] 17.4
	20 [-6.7]	Total BTUH [kW] Power	145.4 [42.6] 13.9	143.6 [42.1] 14.2	141.4 [41.4] 14.6	137.8 [40.4] 15.5	136.1 [39.9] 15.8	134.0 [39.3] 16.2	130.2 [38.2] 17.0	128.6 [37.7] 17.3	126.6 [37.1] 17.8
	25 [-3.9]	Total BTUH [kW] Power	163.0 [47.8] 14.3	161.0 [47.2] 14.6	158.5 [46.5] 15.0	155.4 [45.5] 15.9	153.5 [45.0] 16.2	151.1 [44.3] 16.6	147.8 [43.3] 17.4	146.0 [42.8] 17.7	143.7 [42.1] 18.2
	30 [-1.1]	Total BTUH [kW] Power	180.6 [52.9] 14.7	178.5 [52.3] 15.0	175.7 [51.5] 15.4	173.0 [50.7] 16.2	171.0 [50.1] 16.6	168.3 [49.3] 17.1	165.4 [48.5] 17.7	163.4 [47.9] 18.1	160.9 [47.1] 18.6
	35 [1.7]	Total BTUH [kW] Power	198.3 [58.1] 15.1	195.9 [57.4] 15.4	192.8 [56.5] 15.8	190.7 [55.9] 16.6	188.4 [55.2] 17.0	185.4 [54.3] 17.5	183.1 [53.6] 18.1	180.9 [53.0] 18.5	178.0 [52.2] 19.0
	40 [4.4]	Total BTUH [kW] Power	215.9 [63.3] 15.5	213.3 [62.5] 15.8	209.9 [61.5] 16.3	208.3 [61.0] 17.0	205.8 [60.3] 17.4	202.5 [59.4] 17.9	200.7 [58.8] 18.5	198.3 [58.1] 18.9	195.2 [57.2] 19.4
	45 [7.2]	Total BTUH [kW] Power	233.5 [68.4] 15.9	230.7 [67.6] 16.2	227.1 [66.5] 16.7	225.9 [66.2] 17.4	223.2 [65.4] 17.8	219.7 [64.4] 18.3	218.3 [64.0] 18.9	215.7 [63.2] 19.3	212.3 [62.2] 19.9
	50 [10]	Total BTUH [kW] Power	251.1 [73.6] 16.3	248.1 [72.7] 16.6	244.2 [71.6] 17.1	243.5 [71.4] 17.8	240.6 [70.5] 18.2	236.8 [69.4] 18.7	235.9 [69.1] 19.3	233.1 [68.3] 19.7	229.4 [67.2] 20.3

IDB—Indoor air dry bulb

[] Designates Metric Conversions

AIRFLOW PERFORMANCE — 15 TON [52.8 kW]—SIDEFLOW

Air Flow CFM [L/s]	Model RHPH2T180A Voltage 208/230, 460, 575 — 3 Phase										External Static Pressure—Inches of Water [kPa]																													
	0.1 [0.02]	0.2 [0.05]	0.3 [0.07]	0.4 [0.10]	0.5 [0.12]	0.6 [0.15]	0.7 [0.17]	0.8 [0.20]	0.9 [0.22]	1.0 [0.25]	1.1 [0.27]	1.2 [0.30]	1.3 [0.32]	1.4 [0.35]	1.5 [0.37]	1.6 [0.40]	1.7 [0.42]	1.8 [0.45]	1.9 [0.47]	2.0 [0.50]																				
RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W																			
4800 [2265]	—	—	—	—	—	583	1393	608	1508	632	1621	656	1732	679	1841	701	1947	723	2052	744	2154	764	2254	785	2326	805	2430	825	2537	844	2647	863	2761	881	2878					
5000 [2359]	—	—	—	—	—	591	1476	616	1593	640	1707	663	1820	686	1930	708	2038	729	2145	750	2248	771	2350	791	2420	811	2528	830	2640	850	2755	868	2873	887	2995					
5200 [2454]	—	—	—	—	575	1442	600	1562	624	1681	648	1797	671	1911	693	2023	715	2133	736	2241	757	2346	777	2410	797	2520	817	2633	836	2749	855	2869	874	2992	892	3118				
5400 [2548]	—	—	—	—	583	1530	608	1652	632	1772	655	1890	678	2005	701	2119	722	2231	743	2340	764	2447	784	2512	804	2626	823	2744	842	2865	861	2989	879	3117	897	3248				
5600 [2643]	—	—	—	—	592	1621	616	1745	640	1866	663	1986	686	2103	708	2218	729	2331	750	2442	770	2551	791	2620	810	2739	830	2861	849	2987	867	3116	885	3248	903	3384				
5800 [2737]	—	—	—	—	576	1588	601	1715	625	1840	649	1964	672	2085	694	2204	716	2321	737	2436	757	2548	778	2614	798	2735	817	2858	836	2985	855	3116	873	3249	891	3386	909	3527		
6000 [2831]	—	—	—	—	585	1683	610	1813	634	1940	657	2065	680	2187	702	2308	724	2426	744	2543	765	2657	785	2731	805	2856	824	2984	843	3116	861	3251	879	3389	897	3531	914	3676		
6200 [2926]	—	—	—	—	570	1650	595	1783	619	1913	643	2042	666	2169	688	2293	710	2415	731	2535	752	2653	773	2728	792	2854	812	2984	831	3116	850	3253	868	3392	886	3535	903	3682	920	3832
6400 [3020]	—	—	—	—	628	2017	652	2148	674	2276	697	2402	718	2526	739	2648	760	2767	780	2852	800	2983	819	3118	838	3255	856	3396	875	3541	892	3688	909	3839	926	3994	—	—	—	—
6600 [3114]	—	—	—	—	637	2125	661	2257	683	2386	705	2514	727	2640	748	2763	768	2884	788	2984	808	3119	827	3258	845	3400	863	3546	881	3695	899	3847	916	4003	—	—	—	—		
6800 [3209]	—	—	574	1822	599	1961	623	2099	647	2235	670	2369	692	2500	714	2629	735	2766	766	2882	776	2984	796	3121	815	3262	834	3405	853	3552	871	3702	888	3856	905	4013	922	4173	—	—
7000 [3303]	—	—	584	1930	609	2072	633	2211	656	2349	679	2484	701	2617	723	2748	744	2877	764	3003	785	3124	804	3265	823	3410	842	3559	860	3710	878	3865	895	4024	912	4185	929	4350	—	—
7200 [3398]	570	1897	595	2042	619	2185	643	2327	666	2466	689	2602	711	2737	732	2870	753	3000	773	3127	793	3270	812	3416	831	3566	849	3719	868	3875	885	4035	902	4198	919	4364	—	—	—	—

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

Drive Package		F						G					
Motor H.P. [W]		3.0 [2237.1]						5.0 [3728.5]					
Blower Sheave		BK105H						BK105H					
Motor Sheave		1VP-44						1VP-56					
Turns Open	1	2	3	4	5	6	1	2	3	4	5	6	
RPM	733	701	669	640	605	572	927	903	873	840	808	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.

COMPONENT AIR RESISTANCE — 15 TON [52.8 kW]

CFM [L/s]	Resistance — Inches of Water [kPa]													
	4800 [2265]	5000 [2360]	5200 [2454]	5400 [2549]	5600 [2643]	5800 [2737]	6000 [2832]	6200 [2926]	6400 [3020]	6600 [3115]	6800 [3209]	7000 [3304]	7200 [3398]	
Wet Coil	0.03 [0.01]	0.04 [0.01]	0.05 [0.01]	0.06 [0.01]	0.06 [0.01]	0.07 [0.02]	0.08 [0.02]	0.09 [0.02]	0.10 [0.02]	0.10 [0.02]	0.11 [0.03]	0.12 [0.03]	0.13 [0.03]	
Downflow	0.05 [0.01]	0.05 [0.01]	0.05 [0.01]	0.05 [0.01]	0.05 [0.01]	0.05 [0.01]	0.05 [0.01]	0.06 [0.01]	0.06 [0.01]	0.06 [0.01]	0.07 [0.02]	0.08 [0.02]	0.08 [0.02]	
Downflow Economizer R.A. Damper Open	0.09 [0.02]	0.10 [0.02]	0.10 [0.02]	0.11 [0.03]	0.12 [0.03]	0.13 [0.03]	0.13 [0.03]	0.14 [0.03]	0.15 [0.04]	0.16 [0.04]	0.16 [0.04]	0.17 [0.04]	0.18 [0.04]	
Horizontal Economizer R.A. Damper Open	0.00 [0.00]	0.01 [0.00]	0.01 [0.00]	0.02 [0.00]	0.02 [0.00]	0.03 [0.01]	0.03 [0.01]	0.04 [0.01]	0.04 [0.01]	0.05 [0.01]	0.05 [0.01]	0.06 [0.01]	0.06 [0.01]	
Concentric Grill RXRN-AD80 or RXRN-AD81 & Transition RXMC-CJ07	0.21 [0.05]	0.25 [0.06]	0.28 [0.07]	0.32 [0.08]	0.35 [0.09]	0.39 [0.10]	0.43 [0.11]	0.46 [0.11]	0.50 [0.12]	0.54 [0.13]	0.57 [0.14]	0.61 [0.15]	0.64 [0.16]	
Pressure Drop MERV 8	0.068 [0.02]	0.072 [0.02]	0.076 [0.02]	0.08 [0.02]	0.084 [0.02]	0.088 [0.02]	0.092 [0.02]	0.096 [0.02]	0.1 [0.02]	0.104 [0.02]	0.108 [0.03]	0.112 [0.03]	0.116 [0.03]	
Pressure Drop MERV 13	0.009 [0.00]	0.015 [0.00]	0.021 [0.00]	0.028 [0.01]	0.034 [0.01]	0.04 [0.01]	0.046 [0.01]	0.052 [0.01]	0.058 [0.01]	0.065 [0.02]	0.071 [0.02]	0.077 [0.02]	0.083 [0.02]	

AIRFLOW CORRECTION FACTORS — 15 TON [52.8 kW]

ACTUAL—CFM [L/s]	4800 [2265]	5000 [2360]	5200 [2454]	5400 [2549]	5600 [2643]	5800 [2737]	6000 [2832]	6200 [2926]	6400 [3020]	6600 [3115]	6800 [3209]	7000 [3304]	7200 [3398]
TOTAL MBT	0.97	0.97	0.98	0.98	0.98	0.99	0.99	1.00	1.00	1.02	1.03	1.03	1.04
SENSIBLE MBT	0.87	0.90	0.92	0.94	0.94	0.97	0.97	0.99	1.02	1.04	1.09	1.14	1.16
POWER kW	0.98	0.98	0.99	0.99	0.99	0.99	1.00	1.00	1.01	1.01	1.01	1.02	1.02

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]—SIDEFLOW

Air Flow CFM [L/s]	Model RGEH4U360A		Voltage 208/230, 460, 575 — 3 phase 60 Hz										External Static Pressure—Inches of Water [kPa]																													
			0.1 [0.02]		0.2 [0.05]		0.3 [0.07]		0.4 [0.10]		0.5 [0.12]		0.6 [0.15]		0.7 [0.17]		0.8 [0.20]		0.9 [0.22]		1.0 [0.25]		1.1 [0.27]		1.2 [0.30]		1.3 [0.32]		1.4 [0.35]		1.5 [0.37]		1.6 [0.40]		1.7 [0.42]		1.8 [0.45]		1.9 [0.47]		2.0 [0.50]	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6400 [3020]	—	—	—	—	—	—	—	—	—	—	632	2007	654	2111	676	2218	698	2328	719	2439	741	2553	763	2670	785	2789	810	3065	830	3203	850	3342	869	3481	888	3621	906	3761	923	3902	937	4121
6600 [3141]	—	—	—	—	—	—	—	—	—	—	642	2106	664	2217	686	2330	707	2446	729	2564	751	2685	773	2808	798	3060	819	3201	838	3342	857	3484	876	3626	894	3769	912	3912	930	4056	944	4271
6800 [3209]	—	—	—	—	—	—	—	—	630	2100	652	2215	674	2332	696	2452	718	2574	739	2699	761	2826	783	2955	807	3202	827	3346	846	3490	865	3634	884	3780	901	3926	919	4072	933	4283	950	4432
7000 [3303]	—	—	—	—	—	—	—	—	641	2213	663	2334	684	2458	706	2585	728	2713	750	2844	772	2977	796	3207	816	3352	835	3499	854	3646	873	3794	891	3942	909	4091	926	4240	940	4448	957	4603
7200 [3398]	—	—	—	—	—	—	630	2211	651	2336	673	2464	695	2594	717	2727	739	2862	761	2999	783	3139	805	3362	825	3511	844	3661	863	3811	881	3961	898	4112	916	4264	932	4417	947	4624	964	4784
7400 [3492]	—	—	—	—	—	—	641	2338	663	2470	684	2604	706	2741	728	2880	750	3021	772	3165	795	3375	815	3526	834	3678	853	3831	871	3984	889	4137	906	4292	923	4447	938	4650	954	4810	971	4976
7600 [3586]	—	—	630	2339	652	2475	674	2613	686	2754	718	2897	740	3043	761	3190	783	3341	805	3545	824	3699	843	3854	862	4009	879	4165	897	4322	914	4479	930	4637	945	4841	962	5007	978	5179		
7800 [3681]	—	—	642	2480	664	2622	686	2767	707	2914	729	3064	751	3216	773	3370	795	3567	815	3723	834	3880	852	4038	870	4197	888	4356	905	4515	922	4675	936	4878	953	5043	969	5214	986	5392		
8000 [3775]	632	2485	654	2631	676	2780	698	2931	719	3085	741	3241	763	3399	785	3559	806	3750	825	3910	844	4070	862	4231	880	4392	897	4554	914	4717	930	4880	944	5084	961	5255	977	5432	993	5616		
8200 [3869]	644	2640	666	2793	688	2948	710	3105	732	3265	754	3427	776	3592	797	3760	816	3942	835	4105	854	4268	871	4432	889	4596	906	4761	922	4927	936	5130	952	5300	969	5477	985	5660	1001	5850		
8400 [3964]	657	2805	679	2964	701	3126	723	3290	745	3456	767	3625	789	3796	808	3978	827	4143	846	4309	864	4475	881	4642	898	4809	915	4977	931	5146	944	5352	961	5528	977	5710	993	5899	1008	6094		
8600 [4058]	670	2980	692	3146	714	3314	736	3484	758	3657	780	3832	800	4017	819	4184	838	4352	856	4521	874	4690	891	4860	907	5030	924	5201	937	5408	953	5584	969	5765	985	5954	1001	6148	—	—		
8800 [4153]	683	3166	705	3338	727	3512	749	3689	771	3868	793	4059	812	4229	831	4399	849	4570	867	4742	884	4914	901	5087	917	5260	933	5434	946	5645	962	5826	978	6013	993	6208	1009	6408	—	—		
9000 [4247]	697	3361	719	3540	741	3721	763	3904	785	4089	805	4276	824	4449	842	4622	860	4796	877	4971	894	5146	911	5322	927	5498	939	5712	955	5892	971	6079	986	6272	1002	6472	—	—	—	—		
9200 [4341]	711	3567	733	3752	755	3939	777	4129	798	4327	817	4502	835	4678	853	4854	871	5031	888	5209	905	5387	921	5565	933	5784	949	5963	964	6149	980	6342	995	6541	1010	6747	—	—	—	—		
9400 [4436]	725	3783	747	3975	769	4168	792	4361	811	4558	829	4736	847	4915	865	5094	882	5274	899	5455	915	5636	931	5818	942	6040	958	6225	973	6418	989	6616	1004	6821	—	—	—	—	—	—		
9600 [4530]	739	4010	762	4207	784	4407	805	4617	823	4798	842	4979	859	5161	877	5343	894	5526	910	5709	926	5894	937	6122	952	6307	968	6498	983	6696	998	6901	—	—	—	—	—	—	—	—		

NOTE: F-Drive left of the bold line, G-Drive between two bold lines, and H-Drive to the right of the bold line.

AIRFLOW CORRECTION FACTORS — 20 TON [70.3 kW]

Drive Package	F						G						H (field installed only)					
	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Motor H.P. [W]	5 [3728.5]						7.5 [5592.7]						7.5 [5592.7]					
Blower Sheave	BK130H						BK130H						BK120H					
Motor Sheave	1VP-56						1VP-71						1VP-71					
Turns Open	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
RPM	756	734	709	683	658	631	928	902	874	874	874	874	1009	981	955	928	899	870

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

COMPONENT AIR RESISTANCE—20 TON [70.3 kW]

CFM [L/s]	6400	6600	6800	7000	7200	7400	7600	7800	8000	8200	8400	8600	8800	9000	9200	9400	9600
	[3020]	[3114]	[3209]	[3303]	[3398]	[3492]	[3586]	[3681]	[3775]	[3869]	[3964]	[4058]	[4153]	[4247]	[4341]	[4436]	[4530]
Resistance — Inches of Water [kPa]																	
Wet Coil	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.05	0.06	0.06	0.07	0.07
	[.00]	[.00]	[.00]	[.00]	[.00]	[.00]	[.00]	[.01]	[.01]	[.01]	[.01]	[.01]	[.01]	[.01]	[.01]	[.02]	[.02]
Downflow	0.06	0.06	0.07	0.08	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.18	0.19	0.20	0.22
	[.01]	[.01]	[.02]	[.02]	[.02]	[.02]	[.02]	[.03]	[.03]	[.03]	[.03]	[.04]	[.04]	[.04]	[.05]	[.05]	[.05]
Downflow Economizer RA Damper Open	0.15	0.16	0.16	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.24	0.25	0.26	0.27	0.28	0.29	0.30
	[.04]	[.04]	[.04]	[.04]	[.04]	[.05]	[.05]	[.05]	[.05]	[.06]	[.06]	[.06]	[.06]	[.07]	[.07]	[.07]	[.07]
Horizontal Economizer RA Damper Open	0.04	0.05	0.05	0.06	0.06	0.07	0.07	0.08	0.09	0.09	0.10	0.10	0.11	0.11	0.12	0.12	0.13
	[.01]	[.01]	[.01]	[.01]	[.01]	[.02]	[.02]	[.02]	[.02]	[.02]	[.02]	[.02]	[.03]	[.03]	[.03]	[.03]	[.03]
Concentric Grill RXRN-AD88 & Transition RXMC-CK08	0.26	0.29	0.32	0.35	0.38	0.41	0.44	0.47	0.50	0.53	0.56	0.59	0.62	0.65	0.69	0.72	0.75
	[.06]	[.07]	[.08]	[.09]	[.09]	[.10]	[.11]	[.12]	[.12]	[.13]	[.14]	[.15]	[.15]	[.16]	[.17]	[.18]	[.19]
MERV 8	0.100	0.104	0.108	0.112	0.116	0.120	0.124	0.128	0.132	0.136	0.140	0.144	0.148	0.152	0.156	0.160	0.164
MERV 13	0.058	0.065	0.071	0.077	0.083	0.089	0.095	0.102	0.108	0.114	0.120	0.126	0.132	0.138	0.145	0.151	0.157

AIRFLOW CORRECTION FACTORS—20 TON [70.3 kW]

CFM	6400	6600	6800	7000	7200	7400	7600	7800	8000	8200	8400	8600	8800	9000	9200	9400	9600
[L/s]	[3020]	[3114]	[3209]	[3303]	[3398]	[3492]	[3586]	[3681]	[3775]	[3869]	[3964]	[4058]	[4153]	[4247]	[4341]	[4436]	[4530]
Total MBH	0.97	0.97	0.98	0.98	0.99	0.99	1.00	1.00	1.01	1.01	1.02	1.02	1.03	1.03	1.03	1.04	1.04
Sensible MBH	0.88	0.90	0.92	0.94	0.96	0.97	0.99	1.01	1.03	1.05	1.07	1.09	1.10	1.12	1.14	1.16	1.18
Power kW	0.98	0.99	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.01	1.01	1.01	1.01	1.01	1.02	1.02	1.02

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

[] Designates Metric Conversions

ELECTRICAL DATA – RHPH2T SERIES WITHOUT POWERED EXHAUST

		180ACF	180ACG	180ADF	180ADG	180AYF	180AYG
Unit Information	Unit Operating Voltage Range	187-253	187-253	414-506	414-506	518-632	518-632
	Volts	208/230	208/230	460	460	575	575
	Phase	3	3	3	3	3	3
	Hz	60	60	60	60	60	60
	Minimum Circuit Ampacity	76/76	80/80	37	38	28	30
	Minimum Overcurrent Protection Device Size	90/90	90/90	40	45	30	35
	Maximum Overcurrent Protection Device Size	100/100	100/100	45	45	35	35
Compressor Motor	No.	2	2	2	2	2	2
	Volts	200/230	200/230	460	460	575	575
	Phase	3	3	3	3	3	3
	RPM	3450	3450	3450	3450	3450	3450
	HP, Compressor 1	7	7	7	7	7	7
	Amps (RLA), Comp. 1	25.9	25.9	12.2	12.2	9	9
	Amps (LRA), Comp. 1	164	164	100	100	78	78
	HP, Compressor 2	7	7	7	7	7	7
	Amps (RLA), Comp. 2	25.9	25.9	12.2	12.2	9	9
	Amps (LRA), Comp. 2	164	164	100	100	78	78
Condenser Motor	No.	4	4	4	4	4	4
	Volts	208/230	208/230	460	460	575	575
	Phase	1	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/3	1/3
	Amps (FLA, each)	2	2	1	1	1	1
	Amps (LRA, each)	3.9	3.9	1.8	1.8	1.5	1.5
Evaporator Fan	No.	1	1	1	1	1	1
	Volts	208/230	208/230	460	460	575	575
	Phase	3	3	3	3	3	3
	HP	3	5	3	5	3	5
	Amps (FLA, each)	9.2	13.6	4.6	6.3	3.5	5.1
	Amps (LRA, each)	74.5	95	38.1	47.5	30	38