

Rheem Commercial Classic® Series Package Gas / Electric Rooftop Unit



RKNL-B Standard Efficiency Series

Nominal Sizes 15-20 Tons [52.8 & 70.3 kW] ASHRAE 90.1-2007 Compliant Model Energy Star® Compliant Model thru 12/31/09







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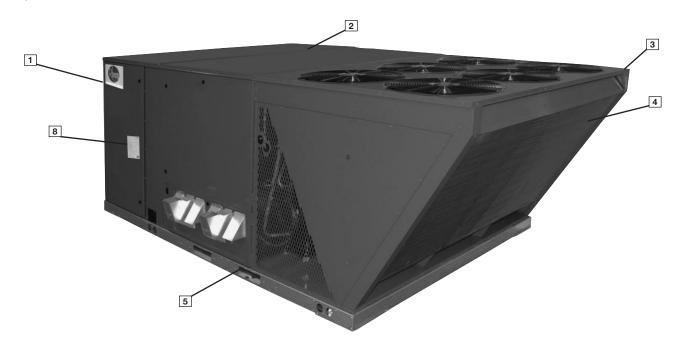
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STANDARD FEATURES INCLUDE:

- R-410A HFC refrigerant.
- · Complete factory charged, wired and run tested.
- Scroll compressors with internal line break overload and high-pressure protection.
- Dual stage compressors.
- Convertible airflow vertical downflow or horizontal sideflow.
- TXV refrigerant metering system on each circuit.
- High Pressure and Low Pressure/Loss of charge protection standard on all models.
- Solid Core liquid line filter drier on each circuit.
- Single slab, single pass designed evaporator and condenser coils facilitate easy cleaning for maintaining high efficiencies.
- Cooling operation up to 125 degree F ambient.
- Foil faced insulation encapsulated throughout entire unit minimizes airborne fibers from the air stream.
- Hinged major access door with heavy-duty gasketing, 1/4 turn latches and door retainers.
- Slide Out Indoor fan assembly for added service convenience.
- Powder Paint Finish meets ASTMB117 steel coated on each side for maximum protection. G90 galvanized.
- Base pan with drawn supply and return opening for superior water management.

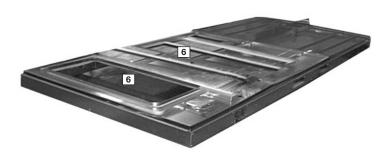
- Forkable base rails for easy handling and lifting.
- · Single point electrical connections.
- Internally sloped slide out condensate pan conforms to ASHRAE 62 standards.
- High performance belt drive motor with variable pitch pulleys and quick adjust belt system.
- Permanently lubricated evaporator, condenser and gas heat inducer motors.
- Condenser motors are internally protected, totally enclosed with shaft down design.
- 2 inch filter standard with slide out design.
- Two stage gas valve, direct spark ignition, and induced draft for efficiency and reliability.
- Tubular heat exchange for long life and induced draft for efficiency and reliability.
- Solid state furnace control with on board diagnostics.
- 24 volt control system with resettable circuit breakers.
- Colored and labeled wiring.
- Copper tube/Aluminum Fin coils. (Exception: C241 has microchannel condenser coils.)



Rheem Package equipment is designed from the ground up with the latest features and benefits required to compete in today's market. The clean design stands alone in the industry and is a testament to the quality, reliability, ease of installation and serviceability that goes into each unit. Outwardly, the large Rheem Commercial Series™ label (1) identifies the brand to the customer.

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

Anything built to last must start with the right foundation. In this case, the foundation is 14-gauge, commercial-grade, full-perimeter base rails (5), which integrate fork slots and rigging holes to save set-up time on the job site. The base pan is stamped, which forms a 1-1/8" flange around the supply and return opening and has eliminated the worry of water entering the conditioned space (6). The drainpan (7) is made of material that resists the growth of harmful bacteria and is sloped for the latest IAQ benefits. Furthermore, the drainpan slides out for easy cleaning. The insulation has been placed on the underside of the basepan, removing areas that would allow for potential moisture accumulation, which can facilitate growth of harmful bacteria. All insulation is secured with both adhesive and mechanical fasteners, and all edges are hidden.



During development, each unit was tested to U.L. 1995, ANSI 21.47, AHRI 340-360 and other Rheem-required reliability tests. Rheem adheres to stringent ISO 9002 quality procedures, and each unit bears the U.L. and AHRI certification labels located on the unit nameplate (8). Contractors can rest assured that when a Rheem package unit arrives at the job, it is ready to go with a factory charge and quality checks.

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

Electrical and filter compartment access is through a large, toolless, 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 loca-

tions. To the right of the control box the model and serial number can be found. Having this information on the inside will assure model identification for the life of the product. The production line quality test assurance label is also placed in this location (9). The two-inch throwaway filters (10) are easily removed on a tracked system for easy replacement.





Inside the control box (11), each electrical component is clearly identified with a label that matches the component to the wire diagram for ease of trouble shooting. All wiring is numbered on each end of the termination and color-coded to match the wiring diagram. The integrated furnace control. used to control furnace operation, incorporates a flashing LED troubleshooting device. Flash codes are clearly outlined on the unit 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 compressor contactor for each compressor.

For added convenience in the field, a factory-installed convenience outlet and disconnect (12) are available. Low and High voltage can enter either from the side or through the base. Lowvoltage 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.

In the outdoor section are the external gauge ports. (13). With gauge ports mounted externally, an accurate diagnostic of system operation can be performed quickly and easily.

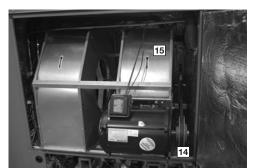






The blower compartment is to the right of the control box and can be accessed by 1/4 turn latches. To allow easy maintenance of the blower assembly, the entire assembly easily slides out by removing four #10 screws from the blower assembly. The adjustable motor pulley (14) can easily be adjusted by loosening 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 belt is removed, the motor sheave can be adjusted to the desired number of turns, ranging from 0 to 6 turns open. Where the demands for the job require high static, Rheem has high-static drives available that deliver nominal airflow up to 2" of static. By referring to the airflow performance tables listed in the installation instructions, proper static pressure and CFM requirements can be dialed in. The scroll housing (15) and blower scroll provide quiet and efficient airflow. The blower sheave is secured by an "H" bushing which firmly secures the pulley to the blower shaft for years of trouble-free operation. The "H" bushing allows for

easy removal of the blower pulley from the shaft, as opposed to the use of a set screw, which can score the shaft, creating burrs that make blowerpulley removal difficult.



Also inside the blower compartment are the optional low-ambient controls ([16]). The low-ambient controls allow for operation of the compressor down to 0 degrees ambient temperature by cycling the outdoor fans on high pressure. Use of polarized plugs and schrader fittings allow for easy field or factory installation.

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

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



edges of insulation behind sheet metal to improve indoor air quality.

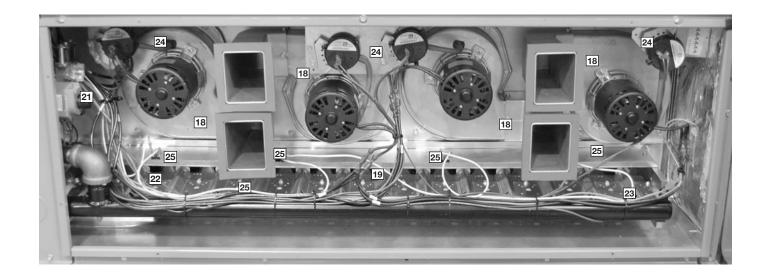
The furnace compartment contains the latest furnace technology on the market. The draft inducers (18) draw the flame from the Rheem exclusive in-shot burners (19) into the aluminized tubular heat exchanger (20) for clean, efficient gas heat. Stainless steel heat exchangers can be factory installed for those applications that have high fresh-air requirements, or applications in corrosive environments. Each furnace is equipment with a two-stage gas valve (21), which provides two stages of gas heat input. The first stage operates at 50% of the second stage (full fire). 81% steady state efficiency is maintained on both first and second stage by staging the multiple inducers to optimize the combustion airflow and maintain a near stoichiometric burn at each stage.



The direct spark igniter (22) assures reliable ignition in the most adverse conditions. This is coupled with remote flame sense (23) to assure that the flame has carried across the entire length of the burner assembly. Gas supply can be routed from the side or up through the base.

Each furnace has the following safety devices to assure consistent and reliable operation after ignition:

- Pressures switches (24) to assure adequate combustion airflow before ignition.
- Rollout switches (25) to assure no obstruction or cracks in the heat exchanger.
- A limit device that protects the furnace from over-temperature problems.



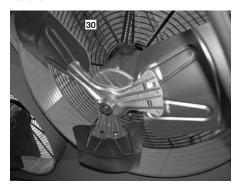
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The compressor compartment houses the heartbeat of the unit. The scroll compressor (26) is known for its long life, and for reliable, quiet, and efficient operation. The suction and discharge lines are designed with shock loops (27) to absorb the strain and stress that the starting torque, steady state operation, and shut down cycle impose on the refrigerant tubing. 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.

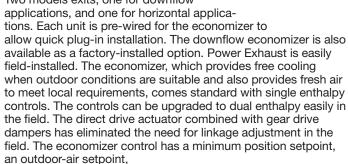
The low-pressure switches (28) and high-pressure switches (29) are mounted on the appropriate refrigerant lines in the condenser section. The high-pressure switch will shut off the compressors if pressures exceeding 610 PSIG are detected as may occur if the outdoor fan motor fails. The low-pressure switches shut off the compressors if low pressure is detected due to loss of refrigerant charge. The optional freeze stats clip on the suction line above the compressor and wires into the low voltage plugs after removing a prewired jumper. The freeze stat protects the compressor if the evaporator coil gets too cold (below freezing) due to low airflow. Each factory-installed option is brazed into the appropriate high or low side and wired appropriately. Use of polarized plugs and schrader fittings allow for easy field installation.

The condenser fan motor (30) 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. The outdoor coil uses the latest enhanced fin design (31) for the most effective method of heat transfer. The outdoor coil is slanted to protect it from Mother Nature.



Each unit is designed for both downflow or horizontal applications (32) for job configuration flexibility. The return air

compartment can also contain an economizer (33). Two models exits, one for downflow

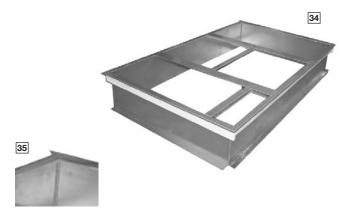


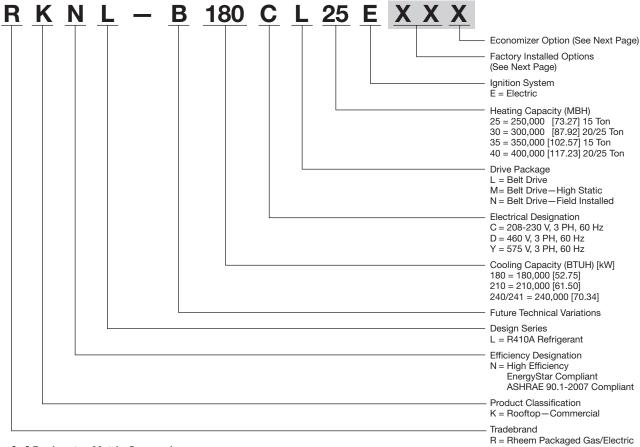
a mix-air setpoint, and a CO2 setpoint. Barometric relief is standard on all economizers. The power exhaust is housed in the barometric relief opening and is easily slipped in with a plug-in assembly.



The Rheem roofcurb (34)

is made for toolless assembly at the jobsite by inserting a pin into a hinge in each corner of the adjacent curb sides (35), which makes the assembly process guick and easy.





FACTORY INSTALLED OPTION CODES FOR RKNL-B 180/210/240/241

Option Code	Hail Guard	Stainless Steel Heat Exchanger	Non-Powered Convenience Outlet/Unfused Service Disconnect	Low Ambient/ Freeze Stat
AA			NO OPTIONS	
AD	Х			
AJ		Х		
AH			X	
AP				Х
BF	Х		X	
BG	Х	Х		
BY	Х			Х
JB		Х	Х	
CR	Х	Х		Х
CW		Х	Х	Х
DN	X	Х	X	X

[&]quot;x" indicates factory installed option.

ECONOMIZER SELECTION FOR RKNL-B 180/210/240/241

Option Code	No Economizer	Single Enthalpy Economizer* With Barometric Relief	Single Enthalpy Economizer* With Barometric Relief and Smoke Detector
Α	x		
F		х	
G			X

[&]quot;x" indicates factory installed option.

Instructions for Factory Installed Option(s) Selection

Note: Three characters following the model number will be utilized to designate a factory-installed option or combination of options. If no factory option(s) is required, nothing follows the model number.

Step 1. After a basic rooftop model is selected, choose a *two-character* option code from the FACTORY INSTALLED OPTION SELECTION TABLE.

Proceed to Step 2.

Step 2. The last option code character is utilized for factory-installed economizers. Choose a character from the FACTORY INSTALLED ECONOMIZER SELECTION TABLE.

Example: RKNL-B240CL40EXXX (where XX is factory installed option)

Example: No Options

RKNL-B240CL40E

Example: No option with factory installed economizer

RKNL-B240CL40EAAF

Example: Options with low ambient and freeze stat, unwired convenience outlet, unfused service disconnect, and stainless steel heat exchanger with no factory installed economizer

RKNL-B240CL40ECWA

Example: Options same as above with factory installed economizer

RKNL-B240CL40ECWF

^{*}Downflow economizer only.

To select an RKNL-B 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: 208/240V - 3 Phase Voltage-Total cooling capacity— 205,000 BTUH [60.1 kW] Sensible cooling capacity— 155,000 BTUH [45.4 kW] 235,000 BTUH [68.9 kW] Heating capacity-*Condenser Entering Air-95°F [35°C] DB 65°F [18°C] WB; *Evaporator Mixed Air Entering 78°F [26°C] DB *Indoor Air Flow (vertical)— 7200 CFM [3398 L/s]

*External Static Pressure— .70 in. WG

2. SELECT UNIT TO MEET COOLING REQUIREMENTS.

Since total cooling is within the range of a nominal 20 ton [70.3 kW] unit, enter cooling performance table at 95°F [35°C] DB condenser inlet air. Interpolate between 63°F [2°C] and 67°F [19°C] to determine total and sensible capacity and power input for 65°F [18°C] WB evap inlet air at 7725 CFM [3646 L/s] indoor air flow (table basis):

Total Capacity = 238,300 BTUH [69.78 kW] Sensible Capacity = 192,500 BTUH [56.37 kW] Power Input (Compressor and Cond. Fans) = 18,200 watts

Use formula in note ① to determine sensible capacity at 78°F [26°C] DB evaporator entering air:

Sensible Capacity = 177,400 BTUH [51.95 kW]

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

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

Total Capacity, $238,300 \times .99 = 235,900 \text{ BTUH } [69.08 \text{ kW}]$ Sensible Capacity, $177,400 \times .96 = 170,300 \text{ BTUH } [49.87 \text{ kW}]$ Power Input $18,200 \times .99 = 18,018 \text{ Watts}$

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

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

Enter Indoor Blower performance table at 7200 CFM [3398 L/s]. Total ESP (external static pressure) per the spec of .70 in. includes the system duct and grilles. Add from the table "Component Air Resistance," 0.01 for wet coil, 0.08 for downflow air flow, for a total selection static pressure of .790 (.8) inches of water, and determine:

RPM = 739 WATTS = 2,862 DRIVE = L (standard 5 H.P. motor)

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

BTUH = $2.862 \times 3.412 = 9.765$

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

Net Total Capacity = 235,900 - 9,765 = 226,135 BTUH [66.22 kW] Net Sensible Capacity = 170,300 - 9,765 = 160,535 BTUH [47.01 kW]

7. CALCULATE UNIT INPUT AND JOB EER.

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

EER = $\frac{\text{Net Total BTUH [kW] (step 6)}}{\text{Power Input, Watts (above)}} = \frac{226,135}{20,880} = 10.83$

8. SELECT UNIT HEATING CAPACITY.

From Physical Data Table read that gas heating output (input rating x efficiency) is:

Heating Capacity = 243,000 BTUH [71.2 kW]

Choose Model RKNL-B240CL30E

*NOTE: These operating conditions are typical of a commercial application in a 95°F/79°F [35°C/26°C] design area with indoor design of 76°F [24°C] DB and 50% RH and 10% ventilation air, with the unit roof mounted and centered on the zone it conditions by ducts.

Model RKNL-B Series	B180CL25E	B180CL35E	B180CM25E	B180CM35E
Cooling Performance ¹				CONTINUED
Gross Cooling Capacity Btu [kW]	188,000 [53.47]	188,000 [53.47]	188,000 [53.47]	188,000 [53.47]
EER/SEER ²	10.8/NA	10.8/NA	10.8/NA	10.8/NA
Nominal CFM/AHRI Rated CFM [L/s]	6000/5900 [2831/2784]	6000/5900 [2831/2784]	6000/5900 [2831/2784]	6000/5900 [2831/2784]
AHRI Net Cooling Capacity Btu [kW]	172,000 [48.92]	172,000 [48.92]	172,000 [48.92]	172,000 [48.92]
Net Sensible Capacity Btu [kW]	125,700 [35.75]	125,700 [35.75]	125,700 [35.75]	125,700 [35.75]
Net Latent Capacity Btu [kW]	46,300 [13.17]	46,300 [13.17]	46,300 [13.17]	46,300 [13.17]
IEER3	12.2	12.2	12.2	12.2
Net System Power kW	15.93	15.93	15.93	15.93
Heating Performance (Package Gas/Electric) ⁴				
Heating Input Btu [kW] (1st Stage /2nd Stage)	125.000/250.000 [36.62/73.25]	175,000/350,000 [51.27/102.55]	125.000/250.000 [36.62/73.25]	175.000/350.000 [51.27/102.55
Heating Output Btu [kW] (1st Stage /2nd Stage)		142,000/284,000 [41.61/83.21]		· •
Temperature Rise Range °F [°C]	15-45 [8.3/25]	30-60 [16.7/33.3]	15-45 [8.3/25]	30-60 [16.7/33.3]
Steady State Efficiency (%)	81	81	81	81
No. Burners	10	14	10	14
No. Stages	2	2	2	2
Gas Connection Pipe Size in. [mm]	0.75 [19]	0.75 [19]	0.75 [19]	0.75 [19]
Compressor	0.73 [18]	0.73 [13]	0.73 [13]	0.73 [18]
No./Type	2/Scroll	2/Scroll	2/Scroll	2/Scroll
Outdoor Sound Rating (dB) ⁵	91	91	91	91
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Type Tube Size in. [mm] OD	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	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]
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]	16000 [7550]	16000 [7550]	16000 [7550]	16000 [7550]
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/Single	Belt/Single	Belt/Single	Belt/Single
No. Motors	1	1	1	1
Motor HP	3	3	5	5
Motor RPM	1725	1725	1725	1725
Motor Frame Size	56	56	184	184
Filter—Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(No.) Size Recommended in. [mm]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	205/211 [5812/5982]	205/211 [5812/5982]	205/211 [5812/5982]	205/211 [5812/5982]
Weights	<u> </u>	·	·	-
Net Weight Ibs. [kg]	1958 [888]	1971 [894]	1987 [901]	2000 [907]
Ship Weight Ibs. [kg]	2058 [934]	2071 [939]	2087 [947]	2100 [953]
See Page 24 for Notes.		. ,		nates Metric Conversion



Model RKNL-B Series	B180DL25E	B180DL35E	B180DM25E	B180DM35E
Cooling Performance ¹				CONTINUED
Gross Cooling Capacity Btu [kW]	188,000 [53.47]	188,000 [53.47]	188,000 [53.47]	188,000 [53.47]
EER/SEER2	10.8/NA	10.8/NA	10.8/NA	10.8/NA
Nominal CFM/AHRI Rated CFM [L/s]	6000/5900 [2831/2784]	6000/5900 [2831/2784]	6000/5900 [2831/2784]	6000/5900 [2831/2784]
AHRI Net Cooling Capacity Btu [kW]	172,000 [48.92]	172,000 [48.92]	172,000 [48.92]	172,000 [48.92]
Net Sensible Capacity Btu [kW]	125,700 [35.75]	125,700 [35.75]	125,700 [35.75]	125,700 [35.75]
Net Latent Capacity Btu [kW]	46,300 [13.17]	46,300 [13.17]	46,300 [13.17]	46,300 [13.17]
IEER3	12.2	12.2	12.2	12.2
Net System Power kW	15.93	15.93	15.93	15.93
Heating Performance (Package Gas/Electric) ⁴		10.00	10.00	10.00
Heating Input Btu [kW] (1st Stage /2nd Stage)	125 000/250 000 [36 62/73 25]	175 000/350 000 [51 27/102 55]125,000/250,000 [36.62/73.25]	175 000/350 000 [51 27/102 5
Heating Output Btu [kW] (1st Stage /2nd Stage)		·	101,500/203,000 [29.74/59.48]	-
Temperature Rise Range °F [°C]	15-45 [8.3/25]	30-60 [16.7/33.3]	15-45 [8.3/25]	30-60 [16.7/33.3]
Steady State Efficiency (%)	81	81	81	81
No. Burners	10	14	10	14
No. Stages	2	2	2	2
Gas Connection Pipe Size in. [mm]	0.75 [19]	0.75 [19]	0.75 [19]	0.75 [19]
Compressor	a.a	2/2 !!		2/2 !!
No./Type	2/Scroll	2/Scroll	2/Scroll	2/Scroll
Outdoor Sound Rating (dB) ⁵	91	91	91	91
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm] OD	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	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]
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]	16000 [7550]	16000 [7550]	16000 [7550]	16000 [7550]
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/Single	Belt/Single	Belt/Single	Belt/Single
No. Motors	1	1	1	1
Motor HP	3	3	5	5
Motor RPM	1725	1725	1725	1725
Motor Frame Size	56	56	184	184
Filter—Type		Disposable	Disposable	
Furnished	Disposable Yes	Yes	Ves	Disposable Yes
(No.) Size Recommended in. [mm]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	205/211 [5812/5982]	205/211 [5812/5982]	205/211 [5812/5982]	205/211 [5812/5982]
Weights	1050 1000	4074 500 17	4007.500.5	0000 100=1
Net Weight lbs. [kg]	1958 [888]	1971 [894]	1987 [901]	2000 [907]
Ship Weight lbs. [kg]	2058 [934]	2071 [939]	2087 [947]	2100 [953]

See Page 24 for Notes.



Model RKNL-B Series	B180YL35E	B180YM35E	B210CL25E	B210CL35E
Cooling Performance ¹				CONTINUED
Gross Cooling Capacity Btu [kW]	188,000 [53.47]	188,000 [53.47]	212,000 [60.30]	212,000 [60.30]
EER/SEER ²	10.8/NA	10.8/NA	10.8/NA	10.8/NA
Nominal CFM/AHRI Rated CFM [L/s]	6000/5900 [2831/2784]	6000/5900 [2831/2784]	7000/7025 [3303/3315]	7000/7025 [3303/3315]
AHRI Net Cooling Capacity Btu [kW]	172,000 [48.92]	172,000 [48.92]	200,000 [56.88]	200,000 [56.88]
Net Sensible Capacity Btu [kW]	125,700 [35.75]	125,700 [35.75]	150,900 [42.91]	150,900 [42.91]
Net Latent Capacity Btu [kW]	46,300 [13.17]	46,300 [13.17]	49,100 [13.96]	49,100 [13.96]
IEER3	12.2	12.2	12.2	12.2
Net System Power kW	15.93	15.93	18.52	18.52
Heating Performance (Package Gas/Electric) ⁴		10.00	10.02	10.02
Heating Input Btu [kW] (1st Stage /2nd Stage)	175 000/350 000 [51 27/102 55]	1175 000/350 000 [51 27/102 55] 125,000/250,000 [36.62/73.25]	1 175 000/350 000 [51 27/102 5
Heating Output Btu [kW] (1st Stage /2nd Stage)		•	101,500/203,000 [29.74/59.48]	•
Temperature Rise Range °F [°C]	30-60 [16.7/33.3]	30-60 [16.7/33.3]	15-45 [8.3/25]	25-55 [13.9/30.6]
Steady State Efficiency (%)	81	81	81	81
No. Burners	14	14	10	14
No. Stages	2	2	2	2
Gas Connection Pipe Size in. [mm]	0.75 [19]	0.75 [19]	0.75 [19]	0.75 [19]
Compressor	0.75 [19]	0.73 [18]	0.73 [18]	0.73 [18]
No./Type	2/Scroll	2/Scroll	2/Scroll	2/Scroll
	91	91	91	91
Outdoor Sound Rating (dB)5				
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm] OD	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	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]
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]	16000 [7550]	16000 [7550]	14800 [6984]	14800 [6984]
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/Single	Belt/Single	Belt/Single	Belt/Single
No. Motors	1	1	1	1
Motor HP	3	5	3	3
Motor RPM	1725	1725	1725	1725
Motor Frame Size	56	184	56	56
Filter—Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(No.) Size Recommended in. [mm]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	205/211 [5812/5982]	205/211 [5812/5982]	294/302 [8335/8562]	294/302 [8335/8562]
Weights	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Net Weight lbs. [kg]	1986 [901]	2015 [914]	2145 [973]	2158 [979]
Ship Weight lbs. [kg]	2086 [946]	2115 [959]	2272 [1031]	2285 [1036]
See Page 24 for Notes.		. ,		nates Metric Conversio



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Model RKNL-B Series	B210CM25E	B210CM35E	B210DL25E	B210DL35E
Cooling Performance ¹				CONTINUED
Gross Cooling Capacity Btu [kW]	212,000 [60.30]	212,000 [60.30]	212,000 [60.30]	212,000 [60.30]
EER/SEER ²	10.8/NA	10.8/NA	10.8/NA	10.8/NA
Nominal CFM/AHRI Rated CFM [L/s]	7000/7025 [3303/3315]	7000/7025 [3303/3315]	7000/7025 [3303/3315]	7000/7025 [3303/3315]
AHRI Net Cooling Capacity Btu [kW]	200,000 [56.88]	200,000 [56.88]	200,000 [56.88]	200,000 [56.88]
Net Sensible Capacity Btu [kW]	150,900 [42.91]	150,900 [42.91]	150,900 [42.91]	150,900 [42.91]
Net Latent Capacity Btu [kW]	49,100 [13.96]	49,100 [13.96]	49,100 [13.96]	49,100 [13.96]
IEER3	12.2	12.2	12.2	12.2
Net System Power kW	18.52	18.52	18.52	18.52
Heating Performance (Package Gas/Electric) ⁴				
Heating Input Btu [kW] (1st Stage /2nd Stage)	125 000/250 000 [36 62/73 25]	175 000/350 000 [51 27/102 55]] 125,000/250,000 [36.62/73.25]	175 000/350 000 [51 27/102 5
Heating Output Btu [kW] (1st Stage /2nd Stage)	-		101,500/203,000 [29.74/59.48]	-
Temperature Rise Range °F [°C]	15-45 [8.3/25]	25-55 [13.9/30.6]	15-45 [8.3/25]	25-55 [13.9/30.6]
Steady State Efficiency (%)	81	81	81	81
No. Burners	10	14	10	14
	2	2	2	
No. Stages				2
Gas Connection Pipe Size in. [mm]	0.75 [19]	0.75 [19]	0.75 [19]	0.75 [19]
Compressor	0/011	0./0	0.70 11	0/0
No./Type	2/Scroll	2/Scroll	2/Scroll	2/Scroll
Outdoor Sound Rating (dB) ⁵	91	91	91	91
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm] OD	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	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]
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]	14800 [6984]	14800 [6984]	14800 [6984]	14800 [6984]
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/Single	Belt/Single	Belt/Single	Belt/Single
No. Motors	1	1	1	1
Motor HP	5	5	3	3
Motor RPM	1725	1725	1725	1725
Motor Frame Size	184	184	56	56
Filter—Type	Disposable	Disposable	Disposable	Disposable
Furnished (No.) Size Recommended in [mm]	Yes	Yes	Yes (0)0x05x00 [51x605x500]	Yes
(No.) Size Recommended in. [mm]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	294/302 [8335/8562]	294/302 [8335/8562]	294/302 [8335/8562]	294/302 [8335/8562]
Weights	A 1 = 1	0.10= 700=-	0.45.55	6.186 rac
Net Weight lbs. [kg]	2174 [986]	2187 [992]	2145 [973]	2158 [979]
Ship Weight lbs. [kg]	2301 [1044]	2314 [1050]	2272 [1031]	2285 [1036]

See Page 24 for Notes.



Model RKNL-B Series	B210DM25E	B210DM35E	B210YL35E	B210YM35E
Cooling Performance ¹				CONTINUED -
Gross Cooling Capacity Btu [kW]	212,000 [60.30]	212,000 [60.30]	212,000 [60.30]	212,000 [60.30]
EER/SEER ²	10.8/NA	10.8/NA	10.8/NA	10.8/NA
Nominal CFM/AHRI Rated CFM [L/s]	7000/7025 [3303/3315]	7000/7025 [3303/3315]	7000/7025 [3303/3315]	7000/7025 [3303/3315]
AHRI Net Cooling Capacity Btu [kW]	200,000 [56.88]	200,000 [56.88]	200,000 [56.88]	200,000 [56.88]
Net Sensible Capacity Btu [kW]	150,900 [42.91]	150,900 [42.91]	150,900 [42.91]	150,900 [42.91]
Net Latent Capacity Btu [kW]	49,100 [13.96]	49,100 [13.96]	49,100 [13.96]	49,100 [13.96]
IEER3	12.2	12.2	12.2	12.2
Net System Power kW	18.52	18.52	18.52	18.52
Heating Performance (Package Gas/Electric) ⁴				
Heating Input Btu [kW] (1st Stage /2nd Stage)	125 000/250 000 [36 62/73 25]	175 000/350 000 [51 27/102 55]	175,000/350,000 [51.27/102.55]	175 000/350 000 [51 27/102 55
Heating Output Btu [kW] (1st Stage /2nd Stage)		•	142,000/284,000 [41.61/83.21]	
Temperature Rise Range °F [°C]	15-45 [8.3/25]	25-55 [13.9/30.6]	25-55 [13.9/30.6]	3025-55 [1680.6/30.6]
Steady State Efficiency (%)	81	81	81	81
No. Burners	10	14	14	14
No. Stages	2	2	2	2
Gas Connection Pipe Size in. [mm]	0.75 [19]	0.75 [19]	0.75 [19]	
	0.75 [19]	0.75 [19]	0.75 [18]	0.75 [19]
Compressor No./Type	2/Scroll	2/Scroll	2/Scroll	2/Scroll
Outdoor Sound Rating (dB) ⁵	91	91	91	91
Outdoor Coil—Fin Type				
•	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm] OD	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	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]
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]	14800 [6984]	14800 [6984]	14800 [6984]	14800 [6984]
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/Single	Belt/Single	Belt/Single	Belt/Single
No. Motors	1	1	1	1
Motor HP	5	5	3	5
Motor RPM	1725	1725	1725	1725
Motor Frame Size	184	184	56	184
Filter—Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(No.) Size Recommended in. [mm]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	294/302 [8335/8562]	294/302 [8335/8562]	294/302 [8335/8562]	294/302 [8335/8562]
Weights		· · ·	<u> </u>	<u> </u>
Net Weight Ibs. [kg]	2174 [986]	2187 [992]	2173 [986]	2202 [999]
Ship Weight lbs. [kg]	2301 [1044]	2314 [1050]	2300 [1043]	2329 [1056]
See Page 24 for Notes.				nates Metric Conversion

See Page 24 for Notes. [] Designates Metric Conversions



Model RKNL-B Series	B240CL30E	B240CL40E	B240CM30E	B240CM40E
Cooling Performance ¹				CONTINUED -
Gross Cooling Capacity Btu [kW]	244,000 [69.40]	244,000 [69.40]	244,000 [69.40]	244,000 [69.40]
EER/SEER ²	10.8/NA	10.8/NA	10.8/NA	10.8/NA
Nominal CFM/AHRI Rated CFM [L/s]	8000/7725 [3775/3645]	8000/7725 [3775/3645]	8000/7725 [3775/3645]	8000/7725 [3775/3645]
AHRI Net Cooling Capacity Btu [kW]	228,000 [64.85]	228,000 [64.85]	228,000 [64.85]	228,000 [64.85]
Net Sensible Capacity Btu [kW]	165,600 [47.10]	165,600 [47.10]	165,600 [47.10]	165,600 [47.10]
Net Latent Capacity Btu [kW]	62,400 [17.75]	62,400 [17.75]	62,400 [17.75]	62,400 [17.75]
IEER3	12.2	12.2	12.2	12.2
Net System Power kW	21.11	21.11	21.11	21.11
Heating Performance (Package Gas/Electric) ⁴	£1.11	21.11	21.11	21.11
Heating Input Btu [kW] (1st Stage /2nd Stage)	150,000/300,000 [43.95/87.9]	200,000/400,000 [58.6/117.2]	150,000/300,000 [43.95/87.9]	200,000/400,000 [58.6/117.2]
Heating Output Btu [kW] (1st Stage /2nd Stage)	121,500/243,000 [35.6/71.2]	162,000/324,000 [47.47/94.93]	121,500/243,000 [35.6/71.2]	162,000/324,000 [47.47/94.93
Temperature Rise Range °F [°C]	15-45 [8.3/25]	25-55 [13.9/30.6]	15-45 [8.3/25]	25-55 [13.9/30.6]
	81	81	81	81
Steady State Efficiency (%)				
No. Burners	12	14	12	14
No. Stages	2	2	2	2
Gas Connection Pipe Size in. [mm]	0.75 [19]	0.75 [19]	0.75 [19]	0.75 [19]
Compressor	0.00	0/0 !!	0.40	0/0 !!
No./Type	2/Scroll	2/Scroll	2/Scroll	2/Scroll
Outdoor Sound Rating (dB) ⁵	91	91	91	91
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm] OD	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	53.3 [4.95]	53.3 [4.95]	53.3 [4.95]	53.3 [4.95]
Rows / FPI [FPcm]	2 / 22 [9]	2 / 22 [9]	2 / 22 [9]	2 / 22 [9]
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]	19800 [9344]	19800 [9344]	19800 [9344]	19800 [9344]
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/Single	Belt/Single	Belt/Single	Belt/Single
No. Motors	1	1	1	1
Motor HP	5	5	7 1/2	7 1/2
Motor RPM	1725	1725	1725	1725
Motor Frame Size	184	184	213	213
Filter—Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(No.) Size Recommended in. [mm]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	402/331 [11397/9384]	402/331 [11397/9384]	402/331 [11397/9384]	402/331 [11397/9384]
Weights	102,001 [11001/0004]	102/001 [1100//0001]	102/001 [11001/000 1]	102/001 [1100//0007]
Net Weight lbs. [kg]	2289 [1038]	2303 [1045]	2327 [1056]	2341 [1062]
Ship Weight lbs. [kg]	2389 [1084]	2403 [1090]	2427 [1101]	2441 [1107]
See Page 24 for Notes.	2000 [100 4]	2400 [1030]		ınates Metric Conversion

See Page 24 for Notes.



Model RKNL-B Series	B240CN30E	B240CN40E	B240DL30E	B240DL40E
Cooling Performance ¹				CONTINUED
Gross Cooling Capacity Btu [kW]	244,000 [69.40]	244,000 [69.40]	244,000 [69.40]	244,000 [69.40]
EER/SEER ²	10.8/NA	10.8/NA	10.8/NA	10.8/NA
Nominal CFM/AHRI Rated CFM [L/s]	8000/7725 [3775/3645]	8000/7725 [3775/3645]	8000/7725 [3775/3645]	8000/7725 [3775/3645]
AHRI Net Cooling Capacity Btu [kW]	228,000 [64.85]	228,000 [64.85]	228,000 [64.85]	228,000 [64.85]
Net Sensible Capacity Btu [kW]	165,600 [47.10]	165,600 [47.10]	165,600 [47.10]	165,600 [47.10]
Net Latent Capacity Btu [kW]	62,400 [17.75]	62,400 [17.75]	62,400 [17.75]	62,400 [17.75]
IEER3	12.2	12.2	12.2	12.2
Net System Power kW	21.11	21.11	21.11	21.11
Heating Performance (Package Gas/Electric) ⁴				
Heating Input Btu [kW] (1st Stage /2nd Stage)	150,000/300,000 [43.95/87.9]	200,000/400,000 [58.6/117.2]	150.000/300.000 [43.95/87.9]	200,000/400,000 [58.6/117.2
Heating Output Btu [kW] (1st Stage /2nd Stage)	121,500/243,000 [35.6/71.2]	162,000/324,000 [47.47/94.93]	121,500/243,000 [35.6/71.2]	162,000/324,000 [47.47/94.9
Temperature Rise Range °F [°C]	15-45 [8.3/25]	25-55 [13.9/30.6]	15-45 [8.3/25]	25-55 [13.9/30.6]
Steady State Efficiency (%)	81	81	81	81
No. Burners	12	14	12	14
No. Stages	2	2	2	2
Gas Connection Pipe Size in. [mm]				
i ti	0.75 [19]	0.75 [19]	0.75 [19]	0.75 [19]
Compressor	0/0	0/0	0/0!!	0/0
No./Type	2/Scroll	2/Scroll	2/Scroll	2/Scroll
Outdoor Sound Rating (dB) ⁵	91	91	91	91
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm] OD	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	53.3 [4.95]	53.3 [4.95]	53.3 [4.95]	53.3 [4.95]
Rows / FPI [FPcm]	2 / 22 [9]	2 / 22 [9]	2 / 22 [9]	2 / 22 [9]
ndoor 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]	19800 [9344]	19800 [9344]	19800 [9344]	19800 [9344]
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
ndoor 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/Single	Belt/Single	Belt/Single	Belt/Single
No. Motors	1	1	1	1
Motor HP	7 1/2	7 1/2	5	5
Motor RPM	1725	1725	1725	1725
Motor Frame Size	213	213	184	184
Filter—Type			Disposable	Disposable
**	Disposable	Disposable	•	·
Furnished (No.) Size Recommended in [mm]	Yes (9)2225220 [6126252609]	Yes (9)2y25y20 [51y625y509]	Yes (0)2y25y20 [51y625y500]	Yes (9)2y25y20 [51y625y509]
(No.) Size Recommended in. [mm]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	402/331 [11397/9384]	402/331 [11397/9384]	402/331 [11397/9384]	402/331 [11397/9384]
Weights				
Net Weight lbs. [kg]	2325 [1055]	2340 [1061]	2289 [1038]	2303 [1045]
Ship Weight lbs. [kg]	2425 [1100]	2440 [1107]	2389 [1084]	2403 [1090]

See Page 24 for Notes.



Model RKNL-B Series	B240DM30E	B240DM40E	B240DN30E	B240DN40E
Cooling Performance ¹				CONTINUED -
Gross Cooling Capacity Btu [kW]	244,000 [69.40]	244,000 [69.40]	244,000 [69.40]	244,000 [69.40]
EER/SEER ²	10.8/NA	10.8/NA	10.8/NA	10.8/NA
Nominal CFM/AHRI Rated CFM [L/s]	8000/7725 [3775/3645]	8000/7725 [3775/3645]	8000/7725 [3775/3645]	8000/7725 [3775/3645]
AHRI Net Cooling Capacity Btu [kW]	228,000 [64.85]	228,000 [64.85]	228,000 [64.85]	228,000 [64.85]
Net Sensible Capacity Btu [kW]	165,600 [47.10]	165,600 [47.10]	165,600 [47.10]	165,600 [47.10]
Net Latent Capacity Btu [kW]	62,400 [17.75]	62,400 [17.75]	62,400 [17.75]	62,400 [17.75]
IEER3	12.2	12.2	12.2	12.2
Net System Power kW	21.11	21.11	21.11	21.11
Heating Performance (Package Gas/Electric) ⁴	21.11	21.11	21.11	21.11
, ,	150 000/000 000 [40 05/07 0]	000 000/400 000 [E0 0/447 0]	150 000/000 000 [40 05/07 0]	000 000 400 000 [E0 0447 0]
Heating Input Btu [kW] (1st Stage /2nd Stage)	150,000/300,000 [43.95/87.9]			200,000/400,000 [58.6/117.2]
Heating Output Btu [kW] (1st Stage /2nd Stage)	121,500/243,000 [35.6/71.2]			-
Temperature Rise Range °F [°C]	15-45 [8.3/25]	25-55 [13.9/30.6]	15-45 [8.3/25]	25-55 [13.9/30.6]
Steady State Efficiency (%)	81	81	81	81
No. Burners	12	14	12	14
No. Stages	2	2	2	2
Gas Connection Pipe Size in. [mm]	0.75 [19]	0.75 [19]	0.75 [19]	0.75 [19]
Compressor				
No./Type	2/Scroll	2/Scroll	2/Scroll	2/Scroll
Outdoor Sound Rating (dB) ⁵	91	91	91	91
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled	Rifled
Tube Size in. [mm] OD	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	53.3 [4.95]	53.3 [4.95]	53.3 [4.95]	53.3 [4.95]
Rows / FPI [FPcm]	2 / 22 [9]	2 / 22 [9]	2 / 22 [9]	2 / 22 [9]
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	0/24 [000:0] Direct/1	0/24 [000:0] Direct/1	Direct/1
· ·				
CFM [L/s]	19800 [9344]	19800 [9344]	19800 [9344]	19800 [9344]
No. Motors/HP	6 at 1/3 HP			
Motor RPM	1075	1075	1075 FC Centrifugal	1075 FC Centrifugal
Indoor Fan—Type	FC Centrifugal	FC Centrifugal	ŭ	· ·
No. Used/Diameter in. [mm]	2/18x9 [457x229]	2/18x9 [457x229]	2/18x9 [457x229]	2/18x9 [457x229]
Drive Type/No. Speeds	Belt/Single	Belt/Single	Belt/Single	Belt/Single
No. Motors	1	1	1	1
Motor HP	7 1/2	7 1/2	7 1/2	7 1/2
Motor RPM	1725	1725	1725	1725
Motor Frame Size	184	213	184	213
Filter—Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(No.) Size Recommended in. [mm]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	402/331 [11397/9384]	402/331 [11397/9384]	402/331 [11397/9384]	402/331 [11397/9384]
Weights				
Net Weight lbs. [kg]	2327 [1056]	2341 [1062]	2325 [1055]	2340 [1061]
Ship Weight lbs. [kg]	2427 [1101]	2441 [1107]	2425 [1100]	2440 [1107]
See Page 24 for Notes.				nates Metric Conversions

See Page 24 for Notes.



Model RKNL-B Series	B240YL40E	B240YM40E	B240YN40E
Cooling Performance ¹			CONTINUED -
Gross Cooling Capacity Btu [kW]	244,000 [69.40]	244,000 [69.40]	244,000 [69.40]
EER/SEER2	10.8/NA	10.8/NA	10.8/NA
Nominal CFM/AHRI Rated CFM [L/s]	8000/7725 [3775/3645]	8000/7725 [3775/3645]	8000/7725 [3775/3645]
AHRI Net Cooling Capacity Btu [kW]	228,000 [64.85]	228,000 [64.85]	228,000 [64.85]
Net Sensible Capacity Btu [kW]	165,600 [47.10]	165,600 [47.10]	165,600 [47.10]
Net Latent Capacity Btu [kW]	62,400 [17.75]	62,400 [17.75]	62,400 [17.75]
IEER3	12.2	12.2	12.2
Net System Power kW	21.11	21.11	21.11
leating Performance (Package Gas/Electric) ⁴			
Heating Input Btu [kW] (1st Stage /2nd Stage)	200,000/400,000 [58.6/117.2]	200,000/400,000 [58.6/117.2]	200,000/400,000 [58.6/117.2]
Heating Output Btu [kW] (1st Stage /2nd Stage)	162,000/324,000 [47.47/94.93]	162,000/324,000 [47.47/94.93]	162,000/324,000 [47.47/94.93
Temperature Rise Range °F [°C]	25-55 [13.9/30.6]	25-55 [13.9/30.6]	25-55 [13.9/30.6]
Steady State Efficiency (%)	81	81	81
No. Burners	14	14	14
No. Stages	2	2	2
Gas Connection Pipe Size in. [mm]	0.75 [19]	0.75 [19]	0.75 [19]
Compressor	55 [5]	00 [0]	\$\$ [1.6]
No./Type	2/Scroll	2/Scroll	2/Scroll
Outdoor Sound Rating (dB)5	91	91	91
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered
Tube Type	Rifled	Rifled	Rifled
Tube Size in. [mm] OD	0.375 [9.5]	0.375 [9.5]	0.375 [9.5]
Face Area sq. ft. [sq. m]	53.3 [4.95]	53.3 [4.95]	53.3 [4.95]
Rows / FPI [FPcm]	2 / 22 [9]	2 / 22 [9]	2 / 22 [9]
ndoor Coil—Fin Type	Louvered	Louvered	Louvered
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
	6/24 [609.6]	6/24 [609.6]	6/24 [609.6]
No. Used/Diameter in. [mm]	0/24 [009.0] Direct/1	0/24 [009.0] Direct/1	0/24 [009.0] Direct/1
Drive Type/No. Speeds	19800 [9344]	19800 [9344]	
CFM [L/s]	6 at 1/3 HP		19800 [9344] 6 at 1/3 HP
No. Motors/HP	1075	6 at 1/3 HP 1075	1075
Motor RPM	FC Centrifugal	FC Centrifugal	FC Centrifugal
ndoor Fan—Type		•	·
No. Used/Diameter in. [mm]	2/18x9 [457x229]	2/18x9 [457x229]	2/18x9 [457x229]
Drive Type/No. Speeds	Belt/Single	Belt/Single	Belt/Single
No. Motors	l E	1 7 1 / 0	1 71/0
Motor HP	5	7 1/2	7 1/2
Motor RPM	1725	1725	1725
Motor Frame Size	184	213	213
ilter—Type	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes
(No.) Size Recommended in. [mm]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]	(8)2x25x20 [51x635x508]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	402/331 [11397/9384]	402/331 [11397/9384]	402/331 [11397/9384]
Weights			
Net Weight lbs. [kg]	2323 [1054]	2361 [1071]	2360 [1070]
Ship Weight lbs. [kg]	2423 [1099]	2461 [1116]	2460 [1116]

See Page 24 for Notes.



Model RKNL-B Series	B241CL30E
Cooling Performance ¹	CONTINUED
Gross Cooling Capacity Btu [kW]	242,000 [68.83]
EER/SEER ²	10.8/NA
Nominal CFM/AHRI Rated CFM [L/s]	8000/7375 [3775/3480]
AHRI Net Cooling Capacity Btu [kW]	228,000 [64.85]
Net Sensible Capacity Btu [kW]	167,000 [47.50]
Net Latent Capacity Btu [kW]	63,000 [17.92]
IEER3	12.2
Net System Power kW	21.11
leating Performance (Gas) ⁴	
Heating Input Btu [kW] (1st Stage / 2nd Stage)	150,000/300,000 [43.95/87.9]
Heating Output Btu [kW] (1st Stage / 2nd Stage)	121,500/243,000 [35.6/71.2]
Temperature Rise Range °F [°C]	15-45 [8.3-25] /
(1st Stage / 2nd Stage)	15-45 [8.3-25]
Steady State Efficiency (%)	81
No. Burners	12
No. Stages	2
Gas Connection Pipe Size in. [mm]	0.75 [19]
	0.70 [10]
Compressor No /Type	2/Scroll
No./Type	
Outdoor Sound Rating (dB) ⁵	91
Outdoor Coil—Fin Type	Louvered
Tube Type	MicroChannel
Tube Size in. [mm] OD	1 [25.4]
Face Area sq. ft. [sq. m]	50.8 [4.72]
Rows / FPI [FPcm]	1 / 23 [9]
ndoor Coil—Fin Type	Louvered
Tube Type	Rifled
Tube Size in. [mm]	0.375 [9.5]
Face Area sq. ft. [sq. m]	26.67 [2.48]
Rows / FPI [FPcm]	4 / 15 [6]
Refrigerant Control	TX Valves
Drain Connection No./Size in. [mm]	1/1 [25.4]
Outdoor Fan—Type	Propeller
No. Used/Diameter in. [mm]	6/24 [609.6]
Drive Type/No. Speeds	Direct/1
CFM [L/s]	19800 [9344]
No. Motors/HP	6 at 1/3 HP
Motor RPM	1075
ndoor Fan—Type	FC Centrifugal
No. Used/Diameter in. [mm]	2/18x9 [457x229]
Drive Type	Belt (Adjustable)
No. Speeds	Single
No. Motors	1
Motor HP	5
Motor RPM	1725
Motor Frame Size	184
ilter—Type	Disposable
Furnished	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(8)2x25x20 [51x635x508]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	271/227 [7683/6435]
Veights	
-	0000 140001
Net Weight the [kg]	2280 110381
Net Weight lbs. [kg] Ship Weight lbs. [kg]	2289 [1038] 2389 [1084]



Model RKNL-B Series	B241CL40E	B241CM30E	B241CM40E	B241DL30E
Cooling Performance ¹				CONTINUED -
Gross Cooling Capacity Btu [kW]	242,000 [68.83]	242,000 [68.83]	242,000 [68.83]	242,000 [68.83]
EER/SEER2	10.8/NA	10.8/NA	10.8/NA	10.8/NA
Nominal CFM/AHRI Rated CFM [L/s]	8000/7375 [3775/3480]	8000/7375 [3775/3480]	8000/7375 [3775/3480]	8000/7375 [3775/3480]
AHRI Net Cooling Capacity Btu [kW]	228,000 [64.85]	228,000 [64.85]	228,000 [64.85]	228,000 [64.85]
Net Sensible Capacity Btu [kW]	167,000 [47.50]	167,000 [47.50]	167,000 [47.50]	167,000 [47.50]
Net Latent Capacity Btu [kW]	63,000 [17.92]	63,000 [17.92]	63,000 [17.92]	63,000 [17.92]
IEER3	12.2	12.2	12.2	12.2
Net System Power kW	21.11	21.11	21.11	21.11
leating Performance (Gas) ⁴				
Heating Input Btu [kW] (1st Stage / 2nd Stage)	200,000/400,000 [58.6/117.2]	150,000/300,000 [43.95/87.9]	200,000/400,000 [58.6/117.2]	150,000/300,000 [43.95/87
Heating Output Btu [kW] (1st Stage / 2nd Stage)	162,000/324,000 [47.47/94.93]	121,500/243,000 [35.6/71.2]	162,000/324,000 [47.47/94.93]	121,500/243,000 [35.6/71.
Temperature Rise Range °F [°C] (1st Stage / 2nd Stage)	25-55 [13.9-30.6] / 25-55 [13.9-30.6]	15-45 [8.3-25] / 15-45 [8.3-25]	25-55 [13.9-30.6] / 25-55 [13.9-30.6]	15-45 [8.3-25] / 15-45 [8.3-25]
Steady State Efficiency (%)	81	81	81	81
No. Burners	14	12	14	12
No. Stages	2	2	2	2
Gas Connection Pipe Size in. [mm]	0.75 [19]	0.75 [19]	0.75 [19]	0.75 [19]
Compressor				
No./Type	2/Scroll	2/Scroll	2/Scroll	2/Scroll
Outdoor Sound Rating (dB) ⁵	91	91	91	91
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Tube Size in. [mm] OD	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	50.8 [4.72]	50.8 [4.72]	50.8 [4.72]	53.3 [4.95]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
ndoor 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]	4 / 15 [6]	4 / 15 [6]	4 / 15 [6]	4 / 15 [6]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]
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]	19800 [9344]	19800 [9344]	19800 [9344]	19800 [9344]
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
ndoor Fan—Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	2/18x9 [457x229]	2/18x9 [457x229]	2/18x9 [457x229]	2/18x9 [457x229]
Drive Type	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)
No. Speeds	Single	Single	Single	Single
No. Motors	1	1	1	1
Motor HP	5	7 1/2	7 1/2	5
Motor RPM	1725	1725	1725	1725
Motor Frame Size	184	213	213	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]	271/227 [7683/6435]	271/227 [7683/6435]	271/227 [7683/6435]	271/227 [7683/6435]
Weights	222. [/ 000/0 100]	222. [,,000,0,00]		
Weights Net Weight Ibs. [kg]	2303 [1045]	2327 [1056]	2341 [1062]	2289 [1038]
	2403 [1045] 2403 [1090]	2327 [1056] 2427 [1101]	2341 [1062] 2441 [1107]	2389 [1084]
Ship Weight lbs. [kg]	2400 [1030]	۲۶۲۱ [۱۱۷۱]	[۱۱۵/]	2009 [1004]

See Page 24 for Notes.

		_		
Model RKNL-B Series	B241DL40E	B241DM30E	B241DM40E	B241YL40E
Cooling Performance ¹	0.40.000.000.001	0.40.000.000.001	0.40.000.000.001	CONTINUED —
Gross Cooling Capacity Btu [kW]	242,000 [68.83]	242,000 [68.83]	242,000 [68.83]	242,000 [68.83]
EER/SEER2	10.8/NA	10.8/NA	10.8/NA	10.8/NA
Nominal CFM/AHRI Rated CFM [L/s]	8000/7375 [3775/3480]	8000/7375 [3775/3480]	8000/7375 [3775/3480]	8000/7375 [3775/3480]
AHRI Net Cooling Capacity Btu [kW]	228,000 [64.85]	228,000 [64.85]	228,000 [64.85]	228,000 [64.85]
Net Sensible Capacity Btu [kW]	167,000 [47.50]	167,000 [47.50]	167,000 [47.50]	167,000 [47.50]
Net Latent Capacity Btu [kW]	63,000 [17.92]	63,000 [17.92]	63,000 [17.92]	63,000 [17.92]
IEER3	12.2	12.2	12.2	12.2
Net System Power kW	21.11	21.11	21.11	21.11
Heating Performance (Gas)4				
Heating Input Btu [kW] (1st Stage / 2nd Stage)	200,000/400,000 [58.6/117.2]	150,000/300,000 [43.95/87.9]	200,000/400,000 [58.6/117.2]	200,000/400,000 [58.6/117.
Heating Output Btu [kW] (1st Stage / 2nd Stage) 162,000/324,000 [47.47/94.93]	121,500/243,000 [35.6/71.2]	162,000/324,000 [47.47/94.93]	162,000/324,000 [47.47/94.9
Temperature Rise Range °F [°C] (1st Stage / 2nd Stage)	25-55 [13.9-30.6] / 25-55 [13.9-30.6]	15-45 [8.3-25] / 15-45 [8.3-25]	25-55 [13.9-30.6] / 25-55 [13.9-30.6]	25-55 [13.9-30.6] / 25-55 [13.9-30.6]
Steady State Efficiency (%)	81	81	81	81
No. Burners	14	12	14	14
No. Stages	2	2	2	2
Gas Connection Pipe Size in. [mm]	0.75 [19]	0.75 [19]	0.75 [19]	0.75 [19]
Compressor				
No./Type	2/Scroll	2/Scroll	2/Scroll	2/Scroll
Outdoor Sound Rating (dB) ⁵	91	91	91	91
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Tube Size in. [mm] OD	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	50.8 [4.72]	50.8 [4.72]	50.8 [4.72]	50.8 [4.72]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
ndoor 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]	4 / 15 [6]	4 / 15 [6]	4 / 15 [6]	4 / 15 [6]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]
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]	19800 [9344]	19800 [9344]	19800 [9344]	19800 [9344]
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
ndoor Fan—Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	2/18x9 [457x229]	2/18x9 [457x229]	2/18x9 [457x229]	2/18x9 [457x229]
Drive Type	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)
No. Speeds	Single	Single	Single	Single
No. Motors	1	1	1	1
Motor HP	5	7 1/2	7 1/2	5
Motor RPM	1725	1725	1725	1725
Motor Frame Size	184	184	213	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]
	271/227 [7683/6435]	271/227 [7683/6435]	271/227 [7683/6435]	271/227 [7683/6435]
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	21 1/221 [1003/0430]	21 1/221 [1003/0433]	21 1/221 [1003/0433]	21 1/221 [1003/0430]
Weights	2202 [4045]	0007 [4056]	0041 [4060]	0000 [4054]
Net Weight Ibs. [kg]	2303 [1045]	2327 [1056]	2341 [1062]	2323 [1054]
Ship Weight Ibs. [kg]	2403 [1090]	2427 [1101]	2441 [1107]	2423 [1099]

See Page 24 for Notes.

Model RKNL-B Series	B241YM40E	
Cooling Performance ¹		
Gross Cooling Capacity Btu [kW]	242,000 [68.83]	
EER/SEER2	10.8/NA	
Nominal CFM/AHRI Rated CFM [L/s]	8000/7375 [3775/3480]	
AHRI Net Cooling Capacity Btu [kW]	228,000 [64.85]	
Net Sensible Capacity Btu [kW]	167,000 [47.50]	
Net Latent Capacity Btu [kW]	63,000 [17.92]	
IEER3	12.2	
Net System Power kW	21.11	
Heating Performance (Gas)4		
Heating Input Btu [kW] (1st Stage / 2nd Stage)	200,000/400,000 [58.6/117.2]	
Heating Output Btu [kW] (1st Stage / 2nd Stage)	162,000/324,000 [47.47/94.93]	
Temperature Rise Range °F [°C] (1st Stage / 2nd Stage)	25-55 [13.9-30.6] / 25-55 [13.9-30.6]	
Steady State Efficiency (%)	81	
No. Burners	14	
	2	
No. Stages	2 0.75 [19]	
Gas Connection Pipe Size in. [mm]	נפון נייט	
Compressor	Q/Coroll	
No./Type	2/Scroll	
Outdoor Sound Rating (dB) ⁵	91	
Outdoor Coil—Fin Type	Louvered	
Tube Type	MicroChannel	
Tube Size in. [mm] OD	1 [25.4]	
Face Area sq. ft. [sq. m]	50.8 [4.72]	
Rows / FPI [FPcm]	1 / 23 [9]	
Indoor Coil—Fin Type	Louvered	
Tube Type	Rifled	
Tube Size in. [mm]	0.375 [9.5]	
Face Area sq. ft. [sq. m]	26.67 [2.48]	
Rows / FPI [FPcm]	4 / 15 [6]	
Refrigerant Control	TX Valves	
Drain Connection No./Size in. [mm]	1/1 [25.4]	
Outdoor Fan—Type	Propeller	
No. Used/Diameter in. [mm]	6/24 [609.6]	
Drive Type/No. Speeds	Direct/1	
CFM [L/s]	19800 [9344]	
No. Motors/HP	6 at 1/3 HP	
Motor RPM	1075	
Indoor Fan—Type	FC Centrifugal	
No. Used/Diameter in. [mm]	2/18x9 [457x229]	
Drive Type	Belt (Adjustable)	
No. Speeds	Single	
No. Motors	1	
Motor HP	7 1/2	
Motor RPM	1725	
Motor Frame Size	213	
Filter—Type	Disposable	
Furnished	Yes	
	(8)2x25x20 [51x635x508]	
(NO.) Size Recommended in. [mm x mm x mm]		
Refrigerant Charge Oz. (Sys. 1/Sys. 2) [g]	271/227 [7683/6435]	
Weights	0004 540743	
Net Weight lbs. [kg]	2361 [1071]	
Ship Weight lbs. [kg]	2461 [1116]	

[] Designates Metric Conversions See Page 24 for Notes.





NOTES:

- 1. Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 340/360.
- 2. EER is rated at AHRI conditions and in accordance with DOE test procedures.
- 3. Integrated Part Load Value is rated in accordance with AHRI Standard 340/360. Units are rated at 80° F ambient, 80° F entering dry bulb, and 67° F entering wet bulb at AHRI rated cfm.
- 4. Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
- 5. Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.



GROSS SYSTEMS PERFORMANCE DATA-B180

					ITERING INDOC	R AIR @ 80°F	[26.7°C] dbE ①)			
		wbE		71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]	
		M [L/s]	7200 [3398]	5900 [2784]	4800 [2265]	7200 [3398]	5900 [2784]	4800 [2265]	7200 [3398]	5900 [2784]	4800 [2265]
		DR ①	.04	.08	.13	.04	.08	.13	.04	.08	.13
0	75 [23.9]	Total BTUH [kW] Sens BTUH [kW] Power	226.5 [66.4] 148.8 [43.6] 12.6	217.8 [63.8] 126.2 [37.0] 12.3	210.4 [61.7] 108.5 [31.8] 12.1	214.3 [62.8] 174.1 [51.0] 12.4	206.0 [60.4] 149.6 [43.9] 12.2	199.0 [58.3] 130.2 [38.2] 12.0	206.3 [60.5] 193.4 [56.7] 12.2	198.4 [58.1] 167.5 [49.1] 12.0	191.7 [56.2] 146.8 [43.0] 11.8
U T D O	80 [26.7]	Total BTUH [kW] Sens BTUH [kW] Power	222.2 [65.1] 146.6 [43.0] 13.1	213.6 [62.6] 124.3 [36.4] 12.9	206.4 [60.5] 106.9 [31.3] 12.7	209.9 [61.5] 171.9 [50.4] 13.0	201.8 [59.1] 147.8 [43.3] 12.7	195.0 [57.1] 128.7 [37.7] 12.5	202.0 [59.2] 191.3 [56.1] 12.8	194.2 [56.9] 165.7 [48.6] 12.6	187.6 [55.0] 145.3 [42.6] 12.4
O R D	85 [29.4]	Total BTUH [kW] Sens BTUH [kW] Power	217.5 [63.7] 144.1 [42.2] 13.8	209.1 [61.3] 122.3 [35.9] 13.5	202.0 [59.2] 105.2 [30.8] 13.3	205.3 [60.2] 169.5 [49.7] 13.6	197.3 [57.8] 145.7 [42.7] 13.4	190.7 [55.9] 127.0 [37.2] 13.1	197.3 [57.8] 188.8 [55.3] 13.5	189.7 [55.6] 163.6 [48.0] 13.2	183.3 [53.7] 143.5 [42.1] 13.0
R Y B	90 [32.2]	Total BTUH [kW] Sens BTUH [kW] Power	212.5 [62.3] 141.4 [41.5] 14.5	204.3 [59.9] 120.0 [35.2] 14.2	197.4 [57.9] 103.3 [30.3] 14.0	200.2 [58.7] 166.7 [48.9] 14.3	192.5 [56.4] 143.5 [42.1] 14.0	186.0 [54.5] 125.1 [36.7] 13.8	192.3 [56.4] 186.2 [54.6] 14.2	184.9 [54.2] 161.4 [47.3] 13.9	178.6 [52.3] 141.6 [41.5] 13.7
U L B	95 [35]	Total BTUH [kW] Sens BTUH [kW] Power	207.2 [60.7] 138.5 [40.6] 15.2	199.2 [58.4] 117.6 [34.5] 14.9	192.4 [56.4] 101.2 [29.7] 14.7	194.9 [57.1] 163.9 [48.0] 15.1	187.4 [54.9] 141.1 [41.4] 14.8	181.0 [53.0] 123.0 [36.1] 14.5	187.0 [54.8] 183.3 [53.7] 14.9	179.8 [52.7] 159.0 [46.6] 14.6	173.7 [50.9] 139.6 [40.9] 14.4
E M P E	100 [37.8]	Total BTUH [kW] Sens BTUH [kW] Power	201.5 [59.1] 135.4 [39.7] 16.0	193.7 [56.8] 115.0 [33.7] 15.7	187.2 [54.9] 99.1 [29.1] 15.4	189.2 [55.4] 160.7 [47.1] 15.9	181.9 [53.3] 138.4 [40.6] 15.6	175.8 [51.5] 120.8 [35.4] 15.3	181.3 [53.1] 180.1 [52.8] 15.7	174.3 [51.1] 156.3 [45.8] 15.4	168.4 [49.4] 137.3 [40.2] 15.1
R A T U	105 [40.6]	Total BTUH [kW] Sens BTUH [kW] Power	195.5 [57.3] 132.0 [38.7] 16.9	188.0 [55.1] 112.2 [32.9] 16.5	181.6 [53.2] 96.6 [28.3] 16.3	183.2 [53.7] 157.3 [46.1] 16.7	176.2 [51.6] 135.6 [39.8] 16.4	170.2 [49.9] 118.3 [34.7] 16.1	175.3 [51.4] 175.3 [51.4] 16.5	168.5 [49.4] 153.4 [45.0] 16.2	162.8 [47.7] 134.8 [39.5] 16.0
R E °F [°C]	110 [43.3]	Total BTUH [kW] Sens BTUH [kW] Power	189.2 [55.4] 128.4 [37.6] 17.8	181.9 [53.3] 109.1 [32.0] 17.4	175.7 [51.5] 93.9 [27.5] 17.1	176.9 [51.8] 153.7 [45.1] 17.6	170.1 [49.9] 132.6 [38.9] 17.3	164.3 [48.2] 115.8 [33.9] 17.0	169.0 [49.5] 169.0 [49.5] 17.5	162.5 [47.6] 150.5 [44.1] 17.1	156.9 [46.0] 132.3 [38.8] 16.8
ر دا	115 [46.1]	Total BTUH [kW] Sens BTUH [kW] Power	182.5 [53.5] 124.5 [36.5] 18.7	175.5 [51.4] 105.9 [31.0] 18.4	169.5 [49.7] 91.2 [26.7] 18.1	170.2 [49.9] 149.9 [43.9] 18.6	163.7 [48.0] 129.4 [37.9] 18.2	158.1 [46.3] 113.0 [33.1] 17.9	162.3 [47.6] 162.3 [47.6] 18.4	156.0 [45.7] 147.2 [43.2] 18.1	150.8 [44.2] 129.6 [38.0] 17.8

GROSS SYSTEMS PERFORMANCE DATA-B210

					ITERING INDOC	R AIR @ 80°F	[26.7°C] dbE ①)			
		wbE		71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]	
		M [L/s]	8400 [3964]	7025 [3315]	5600 [2643]	8400 [3964]	7025 [3315]	5600 [2643]	8400 [3964]	7025 [3315]	5600 [2643]
		DR ①	.06	.09	.13	.06	.09	.13	.06	.09	.13
0	75 [23.9]	Total BTUH [kW] Sens BTUH [kW] Power	193.9 [56.8] 13.0	249.5 [73.1] 168.8 [49.5] 12.8	240.3 [70.4] 144.5 [42.4] 12.5	244.1 [71.5] 224.6 [65.8] 12.8	235.7 [69.1] 197.4 [57.9] 12.6	227.0 [66.5] 170.8 [50.1] 12.4	231.9 [68.0] 231.9 [68.0] 12.7	223.9 [65.6] 217.1 [63.6] 12.4	215.7 [63.2] 189.1 [55.4] 12.2
U T D O	80 [26.7]	Total BTUH [kW] Sens BTUH [kW] Power		244.0 [71.5] 158.3 [46.4] 13.4	235.0 [68.9] 135.2 [39.6] 13.1	238.4 [69.9] 212.9 [62.4] 13.4	230.2 [67.5] 186.9 [54.8] 13.2	221.7 [65.0] 161.5 [47.3] 13.0	226.2 [66.3] 226.2 [66.3] 13.3	218.4 [64.0] 206.6 [60.6] 13.0	210.4 [61.7] 179.8 [52.7] 12.8
O R D	85 [29.4]	Total BTUH [kW] Sens BTUH [kW] Power		238.2 [69.8] 149.0 [43.7] 14.0	229.4 [67.2] 126.9 [37.2] 13.7	232.4 [68.1] 202.7 [59.4] 14.1	224.4 [65.8] 177.7 [52.1] 13.8	216.1 [63.3] 153.4 [45.0] 13.6	220.2 [64.5] 220.2 [64.5] 13.9	212.6 [62.3] 197.4 [57.9] 13.7	204.8 [60.0] 171.7 [50.3] 13.4
R Y B	90 [32.2]	Total BTUH [kW] Sens BTUH [kW] Power	240.4 [70.5] 162.9 [47.8] 14.9	232.1 [68.0] 141.0 [41.3] 14.7	223.5 [65.5] 119.9 [35.1] 14.4	226.1 [66.3] 193.6 [56.7] 14.8	218.3 [64.0] 169.6 [49.7] 14.5	210.3 [61.6] 146.3 [42.9] 14.3	213.9 [62.7] 213.9 [62.7] 14.6	206.5 [60.5] 189.3 [55.5] 14.4	198.9 [58.3] 164.5 [48.2] 14.1
U L B	95 [35]	Total BTUH [kW] Sens BTUH [kW] Power	[]	225.7 [66.1] 134.2 [39.3] 15.4	217.4 [63.7] 114.0 [33.4] 15.1	219.5 [64.3] 186.0 [54.5] 15.5	212.0 [62.1] 162.9 [47.8] 15.2	204.1 [59.8] 140.3 [41.1] 15.0	207.3 [60.8] 207.0 [60.7] 15.3	200.2 [58.7] 182.6 [53.5] 15.1	192.8 [56.5] 158.6 [46.5] 14.8
E M P E	100 [37.8]	Total BTUH [kW] Sens BTUH [kW] Power		219.1 [64.2] 128.7 [37.7] 16.2	211.0 [61.8] 109.2 [32.0] 15.9	212.6 [62.3] 179.6 [52.6] 16.3	205.3 [60.2] 157.3 [46.1] 16.0	197.7 [57.9] 135.5 [39.7] 15.7	200.4 [58.7] 200.4 [58.7] 16.1	193.5 [56.7] 177.0 [51.9] 15.9	186.4 [54.6] 153.8 [45.1] 15.6
R A T U	105 [40.6]	Total BTUH [kW] Sens BTUH [kW] Power		212.1 [62.2] 124.3 [36.4] 17.0	204.3 [59.9] 105.5 [30.9] 16.7	205.4 [60.2] 174.6 [51.2] 17.1	198.3 [58.1] 152.9 [44.8] 16.8	191.0 [56.0] 131.8 [38.6] 16.5	193.2 [56.6] 193.2 [56.6] 17.0	186.5 [54.7] 172.7 [50.6] 16.7	179.7 [52.7] 150.2 [44.0] 16.4
R E °F [°C]	110 [43.3]	Total BTUH [kW] Sens BTUH [kW] Power	212.2 [62.2] 140.3 [41.1] 18.2	204.9 [60.1] 121.3 [35.6] 17.9	197.3 [57.8] 102.9 [30.2] 17.5	197.9 [58.0] 171.0 [50.1] 18.0	191.1 [56.0] 149.9 [43.9] 17.7	184.0 [53.9] 129.3 [37.9] 17.4	185.7 [54.4] 185.7 [54.4] 17.9	179.3 [52.5] 169.6 [49.7] 17.6	172.7 [50.6] 147.6 [43.3] 17.2
	115 [46.1]	Total BTUH [kW] Sens BTUH [kW] Power		197.3 [57.8] 119.4 [35.0] 18.8	190.1 [55.7] 101.6 [29.8] 18.5	190.1 [55.7] 168.7 [49.5] 19.0	183.5 [53.8] 148.0 [43.4] 18.6	176.8 [51.8] 127.9 [37.5] 18.3	177.9 [52.1] 177.9 [52.1] 18.8	171.8 [50.3] 167.8 [49.2] 18.5	165.4 [48.5] 146.1 [42.8] 18.1

DR —Depression ratio dbE —Entering air dry bulb wbE—Entering air wet bulb Total —Total capacity x 1000 BTUH Sens —Sensible capacity x 1000 BTUH

Power —KW input

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



GROSS SYSTEMS PERFORMANCE DATA – B240

					ITERING INDOC	R AIR @ 80°F)			
		wbE		71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]	
		-M [L/s]	9600 [4531]	7725 [3646]	6400 [3020]	9600 [4531]	7725 [3646]	6400 [3020]	9600 [4531]	7725 [3646]	6400 [3020]
⊢		DR ①	.06	.11	.15	.06	.11	.15	.06	.11	.15
	75 [23.9]	Total BTUH [kW] Sens BTUH [kW] Power	283.5 [83.1] 187.4 [54.9] 15.4	271.5 [79.6] 156.3 [45.8] 15.1	263.0 [77.1] 136.0 [39.9] 14.9	269.6 [79.0] 220.5 [64.6] 15.3	258.2 [75.7] 186.7 [54.7] 15.0	250.2 [73.3] 164.4 [48.2] 14.7	258.7 [75.8] 245.6 [72.0] 15.1	247.8 [72.6] 209.7 [61.5] 14.8	240.0 [70.3] 185.7 [54.4] 14.6
UTDO	80 [26.7]	Total BTUH [kW] Sens BTUH [kW] Power	280.8 [82.3] 186.4 [54.6] 16.2	269.0 [78.8] 155.6 [45.6] 15.9	260.6 [76.4] 135.4 [39.7] 15.6	267.0 [78.2] 219.6 [64.4] 16.0	255.7 [74.9] 186.0 [54.5] 15.7	247.7 [72.6] 163.8 [48.0] 15.5	256.1 [75.1] 244.7 [71.7] 15.9	245.3 [71.9] 209.0 [61.3] 15.5	237.6 [69.6] 185.2 [54.3] 15.3
O R D	85 [29.4]	Total BTUH [kW] Sens BTUH [kW] Power	277.4 [81.3] 184.9 [54.2] 17.0	265.7 [77.9] 154.4 [45.3] 16.7	257.4 [75.4] 134.4 [39.4] 16.4	263.5 [77.2] 218.1 [63.9] 16.9	252.4 [74.0] 184.8 [54.2] 16.5	244.5 [71.7] 162.7 [47.7] 16.3	252.6 [74.0] 243.1 [71.3] 16.7	242.0 [70.9] 207.8 [60.9] 16.3	234.4 [68.7] 184.2 [54.0] 16.1
R Y B	90 [32.2]	Total BTUH [kW] Sens BTUH [kW] Power	273.1 [80.0] 182.8 [53.6] 17.9	261.6 [76.7] 152.7 [44.8] 17.5	253.4 [74.3] 132.9 [39.0] 17.3	259.3 [76.0] 216.2 [63.4] 17.7	248.3 [72.8] 183.2 [53.7] 17.4	240.6 [70.5] 161.5 [47.3] 17.1	248.4 [72.8] 241.1 [70.7] 17.6	237.9 [69.7] 206.1 [60.4] 17.2	230.5 [67.6] 182.8 [53.6] 16.9
U L B	95 [35]	Total BTUH [kW] Sens BTUH [kW] Power	268.1 [78.6] 180.2 [52.8] 18.8	256.7 [75.2] 150.5 [44.1] 18.4	248.7 [72.9] 131.1 [38.4] 18.2	254.2 [74.5] 213.5 [62.6] 18.7	243.5 [71.4] 181.1 [53.1] 18.3	235.9 [69.1] 159.6 [46.8] 18.0	243.3 [71.3] 238.6 [69.9] 18.5	233.0 [68.3] 204.0 [59.8] 18.1	225.8 [66.2] 181.0 [53.1] 17.8
M P E	100 [37.8]	Total BTUH [kW] Sens BTUH [kW] Power	262.2 [76.8] 177.1 [51.9] 19.8	251.1 [73.6] 148.0 [43.4] 19.4	243.3 [71.3] 129.0 [37.8] 19.1	248.3 [72.8] 210.4 [61.7] 19.6	237.8 [69.7] 178.5 [52.3] 19.2	230.4 [67.5] 157.4 [46.1] 18.9	237.4 [69.6] 235.3 [69.0] 19.5	227.4 [66.6] 201.4 [59.0] 19.1	220.3 [64.6] 178.7 [52.4] 18.8
R A T U	105 [40.6]	Total BTUH [kW] Sens BTUH [kW] Power	255.5 [74.9] 173.4 [50.8] 20.8	244.7 [71.7] 145.0 [42.5] 20.4	237.1 [69.5] 126.4 [37.1] 20.1	241.6 [70.8] 206.6 [60.6] 20.7	231.4 [67.8] 175.4 [51.4] 20.2	224.2 [65.7] 154.7 [45.3] 19.9	230.7 [67.6] 230.7 [67.6] 20.5	221.0 [64.8] 198.4 [58.2] 20.1	214.1 [62.7] 176.2 [51.6] 19.8
R E °F [°C]	110 [43.3]	Total BTUH [kW] Sens BTUH [kW] Power	248.0 [72.7] 169.2 [49.6] 21.9	237.5 [69.6] 141.5 [41.5] 21.5	230.1 [67.4] 123.4 [36.2] 21.1	234.1 [68.6] 202.4 [59.3] 21.7	224.2 [65.7] 171.9 [50.4] 21.3	217.2 [63.7] 151.7 [44.5] 21.0	223.2 [65.4] 223.2 [65.4] 21.6	213.8 [62.7] 194.9 [57.1] 21.1	207.1 [60.7] 173.1 [50.7] 20.8
	115 [46.1]	Total BTUH [kW] Sens BTUH [kW] Power	239.6 [70.2] 164.3 [48.2] 23.1	229.5 [67.3] 137.5 [40.3] 22.6	222.3 [65.1] 119.9 [35.1] 22.2	225.8 [66.2] 197.7 [58.0] 22.9	216.2 [63.4] 168.0 [49.2] 22.4	209.5 [61.4] 148.4 [43.5] 22.1	214.9 [63.0] 214.9 [63.0] 22.7	205.8 [60.3] 191.0 [56.0] 22.2	199.4 [58.4] 169.8 [49.8] 21.9

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

Total —Total capacity x 1000 BTUH
Sens —Sensible capacity x 1000 BTUH

Power —KW input

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

GROSS SYSTEMS PERFORMANCE DATA-B241

				EN	NTERING INDOC	R AIR @ 80°F	[26.7°C] dbE ①)			
		wbE		71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]	
		FM [L/s]	8030 [3790]	7300 [3445]	6205 [2928]	8030 [3790]	7300 [3445]	6205 [2928]	8030 [3790]	7300 [3445]	6205 [2928]
		DR ①	.01	.08	.05	.01	.08	.05	.01	.08	.05
	75 [23.9]	Total BTUH [kW] Sens BTUH [kW] Power	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2
	80 [26.7]	Total BTUH [kW] Sens BTUH [kW] Power	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2
O U T	85 [29.4]	Total BTUH [kW] Sens BTUH [kW] Power	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2
D O O R	90 [32.2]	Total BTUH [kW] Sens BTUH [kW] Power	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2
D R Y B U	95 [35]	Total BTUH [kW] Sens BTUH [kW] Power	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2
L B T	100 [37.8]	Total BTUH [kW] Sens BTUH [kW] Power	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2
E M P E R	105 [40.6]	Total BTUH [kW] Sens BTUH [kW] Power	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2
A T U R	110 [43.3]	Total BTUH [kW] Sens BTUH [kW] Power	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2
R E °F [°C]	115 [46.1]	Total BTUH [kW] Sens BTUH [kW] Power	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2
	120 [48.9]	Total BTUH [kW] Sens BTUH [kW] Power	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2
	125 [51.7]	Total BTUH [kW] Sens BTUH [kW] Power	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2	245.9 [72.1] 186.8 [54.7] 16.5	241.5 [70.8] 178.5 [52.3] 16.4	234.9 [68.8] 166 [48.6] 16.2

DR —Depression ratio dbE —Entering air dry bulb wbE—Entering air wet bulb Total —Total capacity x 1000 BTUH Sens —Sensible capacity x 1000 BTUH

Power —KW input

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

AIRFLOW PERFORMANCE — 15 TON [52.8 kW]-SIDEFLOW

Г		20]	8	2878	2995	3118	3248	3384	3527	3676	3832	3994	ı	ı	1	1
		1.9 [.47] 2.0 [.50]	PM	881	887	892	897	903	606	914	920	976	ı	ı	Π	ı
		[<u>/</u>	W	2761	2873	2992	3117	3248	3386	3531	3682	3839	4003	173	4350	1
		7]6:	RPM	863 2	868 2	874 2	879 3	885 3	891 3	897 3	903 3	806	916 4	922 4	929 4	П
		5]	W	2647 8	2755 8	2869 8	2989 8	3116	3249 8	3389	3232 6	3 8898	3847 6	4013 8	4185 6	4364
		1.8 [.45]	RPM	844 26	850 27	855 28	861 29	.8 3-	873 32	879 33	886 35	892 36	866 38	905 40	912 4-	919 43
		1			2640 8	2749 8				-		_	3695 8	3856 9		
		7 [.42	M	5 2537	830 26	6 27	842 2865	849 2987	855 3116	861 3251	8 3392	5 3541			5 4024	902 4198
		-	RPM	30 825	83	33 836		-			898 89	96 875	16 881	12 888	35 895	
		3 [.40	M	5 2430	1 2528	7 2633	3 2744	0 2861	5 2985	3 3116	0 3253	93396	3 3546	1 3702	8 3865	5 4035
		7.	RPM	9 805	0 811	0 817	6 823	9 830	8 836	2984 843	9 850	5 856	0 863	2 871	878 0	5 885
		[.37	M	2326	2420	. 2520	. 2626	2739	2858		3116	3255	3400	3552	3710	3875
		1.5	RPM	185	791	797	804	810	817	824	831	838	845	853	98 6	898
		[.35]	≥	2254	2350	2410	2512	2620	2735	2856	2984	3118	3258	3405	3559	3719
		1.4	RPM	764	771	777	784	791	262	802	812	819	827	834	842	849
		1.1 [.27] 1.2 [.30] 1.3 [.32] 1.4 [.35] 1.5 [.37] 1.6 [.40] 1.7 [.42]	≥	2154 764	2248	2346	2447	2551 791	2548 778 2614 798	2731	2854	2983	3119	3262	3410	3566 849
	[a]	1.3	RPM	744	750	222	764	770	8//	282	792	800	808	815	823	831
	ar [kP	.30]	≥	202	2145	2241	2340	729 2331 750 2442	2548	744 2543 765 2657 785	2728	2852	2984	3121	804 3265	3270 812 3416 831
	Wate	1.2 [W RPM	1947 723		736	743	750	757	292	773	780	788	96/		812
	nes of	.27]	8	1947	2038 729	2133		2331	2321 737 2436 757	2543	2653 773	2767	2884	2984	3124	3270
	-Incl	1.1	RPM	701	208	715	722 2231	729	737	744	752	09/	298	9//	785	793
	sure-	25]	8	1841	1930	2023	2119	2218	2321	2426	2535	2648	2763	2882	3003 785	3127
	Pres	1.0.	RPM	. 629	. 989	693	701	208	716	724	731	739			764	773
	External Static Pressure—Inches of Water [kPa]	0.8[.20] 0.9[.22] 1.0[.25]	W	1732	1820	1911	2002	2103	2204 716	2308 724 2426	2415	5256	2640 748	2756 756	2877	3000 773 3127
	ırnal	.9 [RPM	. 999	. 899	. 129	8/9	989	694	702	710	718	727	735 2	744	753
	Exte		W	1621	1707	1797	1890	1986	2085	2187	2293	2402	2514	2629	2748	2870
		8[.	RPM	632	640 1	648 1	655 1	663 1	672 2	680 2	688 2	697 2	705 2	714 2	723 2	732 2
		-		1208	1593	1681	1772 (1866	1964 (2065	2169 (2276	2386	2500	2617	2737
		7.[.1	PM	1 809		624	632				666 2		683 2	692 2		
يو		5] 0	N R	1393 6	1476 616	1562 6	1652 6	1745 640	340 6	340 6		148 6			184 7	302 7
Phas		.6[.1	Mc	583 13	591 17	600 1	608 16	616 17	25 18	34 16	43 20	52 2-	51 22	670 2369	79 2	89 26
-3		2] 0	N R	_ 2		1442 6	1530 6	21 6	12 6	13 6	13 6	17 6	25 6	35 6	49 6	9 99
, 575		5[.1	N.	<u> </u>	1	575 14	583 15	592 1621)1 17	10 18	19 19	28 20	37 21	17 22	56 23	36 24
), 460		<u>.</u>	V RF	<u> </u>		Н	- 28	<u> </u>	576 1588 601 1715 625 1840 649	585 1683 610 1813 634 1940 657	570 1650 595 1783 619 1913 643 2042	579 1750 604 1885 628 2017 652 2148 674	589 1854 614 1991 637 2125 661 2257	574 1822 599 1961 623 2099 647 2235	584 1930 609 2072 633 2211 656 2349 679 2484 701	27 66
8/230		4 [.10	N M	Н			-	_	9 15	16	17	18	4 19	3 20	3 22	13 23
ge 20		.0	R R	_	_		1	Н	<u> </u>	99 —	20 26	20 00	54 61	31 62	72 63	35 64
Volta		3[.07	×	<u> </u>	-	1	1	 -		H	0 16	9 175	9 18	9 196	9 207	9 218
0		<u></u>	RP		 -				-	1	-	\vdash	-	2 599	0 0	2 619
B18		[.05]	×		-				-		1		1	182	193	204
Model RKNL-B180 Voltage 208/230, 460, 575 — 3 Phase		0.2	RPI		-	1	1		-		1		1	\vdash	Н	7 595
lodel		[.02]	8			1	1				1		1	1		189.
Ž		0.1	RPIN		1	1	1				1			1		220
ا ا	All	ر ا 8	O I I LL'S I RPM W	[2265]	[2359]	5200 [2454]	5400 [2548]	5600 [2643]	[2737]	[2831]	6200 [2926]	6400 [3020]	6600 [3114]	6800 [3209]	[8000]	7200 [3398] 570 1897 595 2042 619 2185 643 2327 666 2466 689 2602 711
•	₹ ਹੋ	Ī	5	4800 [2265]	5000 [2359]	5200	5400	2600	5800 [2737]	6000 [2831]	6200	6400	0099	6800	7000	7200
_				•												ت

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

				9	775
				2	808
	28.5]	HS	99	4	840
M	5.0 [3728.5]	BK105H	1VP-56	3	873
				2	903
				1	927
				9	2/2
				9	209
	3.0 [2237.1]	BK105H	1VL-44	7	640
_	3.0 [2]	BK1	1VL	3	699
				2	701
				1	733
Drive Package	Motor H.P. [W]	Blower Sheave	Motor Sheave	Turns Open	RPM

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]

	4800	2000	5200	5400	2600	5800	0009	6200	6400	0099	0089	2000	7200
CFM	[2265]	[2360]	[2454]	[2549]	[2643]	[2737]	[2832]	[2926]	[3020]	[3115]	[3209]	[3304]	[3398]
[۲/3]					Res	stance —	Resistance — Inches of Water [kPa]	f Water [k	Pa]				
West Coil	0.03	0.04	0.05	90.0	90.0	0.07	0.08	0.09	0.10	0.10	0.11	0.12	0.13
Wet coll	[0.01]	[0.01]	[0.01]	[0.01]	[0.01]	[0.05]	[0.02]	[0.02]	[0.02]	[0.02]	[0.03]	[0.03]	[0.03]
no la maria	0.05	90.0	0.05	0.05	0.05	0.05	0.05	90.0	90.0	90.0	0.07	0.08	0.08
DOWIIIOW	[0.01]	[0.01]	[0.01]	[0.01]	[0.01]	[0.01]	[0.01]	[0.01]	[0.01]	[0.01]	[0.02]	[0.02]	[0.02]
Downflow Economizer	0.09	0.10	0.10	0.11	0.12	0.13	0.13	0.14	0.15	0.16	0.16	0.17	0.18
R.A. Damper Open	[0.02]	[0.02]	[0.02]	[0.03]	[0.03]	[0.03]	[0.03]	[0.03]	[0.04]	[0.04]	[0.04]	[0.04]	[0.04]
Horizontal Economizer	0.00	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.02	90.0	90.0
R.A. Damper Open	[0.00]	[00:00]	[00.0]	[0.00]	[0.00]	[0.01]	[0.01]	[0.01]	[0.01]	[0.01]	[0.01]	[0.01]	[0.01]
Concentric Grill RXRN-AD80 or	0.21	0.25	0.28	0.32	0.35	0.39	0.43	0.46	0.50	0.54	0.57	0.61	0.64
RXRN-AD81 & Transition RXMC-CJ07	[0.02]	[0.06]	[0.0]	[0.08]	[0.0]	[0.10]	[0.11]	[0.11]	[0.12]	[0.13]	[0.14]	[0.15]	[0.16]

NOTE: Add component resistance to duct resistance to determine total external static pressure.

AIRFLOW CORRECTION FACTORS—15 TON [52.8 kW]

					O I OIM [32:0 NW]	ָר אַא <u>ז</u>							
ACTUAL—CFM	4800	2000	5200	5400	2600	5800	0009	6200	6400	0099	0089	7000	7200
[L/s]	[2265]	[2360]	[2454]	[2549]	[2643]	[2737]	[2832]	[2926]	[3020]	[3115]	[3209]	[3304]	[3388]
TOTAL MBTUH	0.97	0.97	0.98	0.98	0.99	1.00	1.00	1.01	1.02	1.02	1.03	1.03	1.04
SENSIBLE MBTUH	0.87	06:0	0.92	0.94	0.97	0.99	1.02	1.04	1.06	1.09	1,11	1.14	1.16
POWER KW	0.98	0.98	0.99	0.99	0.99	1.00	1.00	1.00	1.01	1.01	1.01	1.02	1.02
NOTES: Multiply correction factor times gross performance data-resulting sensible	ו factor times gr	oss performance	data-resulting	sensible capacity	5	annot exceed total capacity.					[] Designates №	ates Metric (Metric Conversions

AIRFLOW PERFORMANCE — 17.5 TON [61.5 kW]-SIDEFLOW

		_			_		_			Γ.			1		1	_		_
		[.50]	×	<u> </u>	_	 -	<u> </u>	 -		<u> </u>				_	 -	_	 -	 -
] 2.0	RPM	<u> </u>	 -	 -	_	 -		<u> </u>			-	_	 -	 -	 -	
		9[.47]	M	<u> </u>	<u> </u>	 -	_	 -		<u> </u>			 -	<u> </u>	 -	_	 -	 -
		1.9	RPM	3	3	3	3						 -	 -	-	 		-
		[.45]	M	3803	3923	3 4053	4193									-		-
		1.8 [RPM	8 927	5 931	3 936	1 941	0	6	- 6								-
		1.7 [.42]	M	3628	3745	3873	4011	4160	4319	4489								
		-	RPM	906 9	0 911	916	3 921	0 927	7 933	4 940	7	0		-		-		
		[.40]	M	3455	3570	3698	3833	3980	4137	4304	4482	4670	1			-		
		1.6	RPM	988	890	968	7 902	5 908	7 914	3 921	928	936		-		1		
		1.5 [.37]	M	3285	3399	3523	3657	3802	3957	4123	4299	4485	4682	4889	1		1	
		1.5	RPM	863	698	875	881	888	895	905	910	917	956	934	1	1	1	
		[.35]	8	3119	3230	3353	3485	3628	3781	3945	4119	4303	4498	4703	4918	5144	1	1
		1.4[.	RPM	841	847	854	861	898	875	883	891	836	908	917	956	936		
		.3 [.32]	8	2922	3065	3185	3316	3457	3608	3770	3942	4124	4317	4520	4734	4958	5192	5437
	[e	 5.	RPM	819	825	832	840	847	822	863	871	880	889	899	606	919	929	940
	er [kF	[.30]	W	2795	2903	3021	3150	3289	3438	3598	3768	3949	4139	4341	4552	4774	5007	5249
	External Static Pressure—Inches of Water [kPa]	1.2 [RPM	96/	803	810	818	826	834	843	852	861	871	881	891	901	912	923
	hes o	l	8	2638	2744	2860	2987	3124	3272	3429	3598	3776	3962	4164	4374	4294	4824	2065
	III	1.1 [.27]	RPM	773	780	788	96/	805	813	822	832	841	851	862	872	883	895	906
	sure	.25]	W	2484	2588	2703	2827	2962	3108	3264	3430	3607	3794	3991	4199	4417	4645	4884
	c Pres	1.0 [.25]	RPM	749	757	292	774	783	792	802	811	822	832	843	854	865	877	889
	Statio	[.22]	Μ	2334	2436	2548	2671	2804	2947	3101	3266	3440	3625	3821	4026	4243	4469	4706
	ernal	0.9	RPM	725	734	742	751	761	770	780	791	801	812	823	835	847	828	871
	E	[.20]	M	2186	2286	2397	2517	2649	2790	2942	3104	3277	3460	3654	3857	4072	4296	4531
		0.8	RPM	701	710	719	728	738	748	759	697	780	792	803	815	828	840	853
		17]	M	2042	2140	2248	2367	2496	2636	2786	2946	3117	3298	3490	3692	3904	4127	4359
		0.7 [.	RPIM			695		715			748			783	-			835
3Se		-	8	1900	1996	2103	2220	2347	2485	2633		2960	3139	3329	3529	3739	3960	4191
3 Phi		0.6 [.	3PM	651	199	671	681	692	703	714	726	738	750	763	775	789	802	816
- 6 2		12]	8	1762	1856	1961	2076	2201	2337	2483	2640	2807	2984	3171	3369	3578	3796	4026
60, 5,		0.5 [.	RPM	625	635	949	657	. 899	629	691	703	716	728	742	755	, 697	783	797
Model RKNL-B210 Voltage 208/230, 460, 575 — 3 Phase		0.2 [.05] 0.3 [.07] 0.4 [.10] 0.5 [.12] 0.6 [.15]	RPM W RPM W RPM W RPM	1627 625 1762 651 1900 676	1719 635 1856 661 1996 685	1822 646 1961 671 2103	1935 657 2076 681 2220 705	619 1919 644 2058 668 2201 692 2347	1912 632 2051 656 2192 679 2337 703 2485 726	620 2052 644 2193 668 2336 691 2483 714 2633 737	2491	2656	2831	3017	3213	3419	3636	3548 757 3704 777 3863 797 4026 816 4191
208/2		0.4 [.	NA!	266	610	621	. 289	644 ;	929	, 899	681 ,	693 ,	707	720	734 (748	762	1777
tage .		[/0	W	1	1		1797 632	1919	2051	2193	345	508	2682	3866	3060	3264	3479	3704
Vol		0.3	NA!	П	1	1	607 1	619 1	632 2	644 2	657 2	671 2	684 2	7 869	713 3	727 3	742 3	757 3
210		15]	W	Ī	1	1	-		912 (,025	, 203	364	, 236	717	910	112	325	548
NL-B		1.2 [.(PM	Ī	1	1	_	1	1 209	320 2	334 2	348 2	362 2	376 2	391 2	206 3	721 3	737 3
el RK		12] C	W	Ė	<u> </u>	· 	Ī	· 	9	9	064 E	223 (392 E	572 (762 E	963 7	174 7	395 7
Moa		1.6	PM	<u>'</u>	· 	İ	· -	İ	1	<u> </u>	310 21	324 2	339 2.	353 2	369 2.	384 2	700 3	716 3.
		FIUW 0.1 [.02] 0.2 [.05] 0.3 [.07]	E.								7000 [3303] 610 [2064 634 2203 657 2345 681 2491 703 2640 726 2791	7200 [3398] 624 [2223 648 [2364 671 [2508 693 [2656 716 [2807 738 [2960 759	7400 [3492] 639 2392 662 2536 684 2682 707 2831 728 2984 750 3139 771	7600 [3586] 653 2572 676 2717 698 2866 720 3017 742 3171 763 3329	7800 [3681] 669 [2762] 691 [2910] 713 [3060] 734 [3213] 755 [3369] 775 [3529] 796	8000 [3775] 684 [2963 706 3112 727 3264 748 3419 769 3578 789 3739 808	8200 [3869] 700 3174 721 3325 742 3479 762 3636 <mark> 783 3796</mark> 802 3960 821	8400 [3964] 716 3395 737
	¥ .			5600 [2643]	5800 [2737]	6000 [2831]	6200 [2926]	6400 [3020]	6600 [3114]	6800 [3209]	00 [33 ^a	00 [33	00 [34]	JO [35 ₄	100 [36	76] 00	30 [38 ^a	00 [39 ^a
		5	5	560	580	900	620	64(99	989	700	720	74(760	780	800	820	84(

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

				9	781
				2	814
	28.5]	2H	99	4	845
M	5.0 [3728.5]	BK105H	1VP-56	3	879
				2	606
				-	939
				9	601
				2	633
	237.1]	BK100H	1VL-44	4	999
_	3.0 [2237.1]	BK1	1VL	3	669
				2	731
				-	292
Drive Package	Motor H.P. [W]	Blower Sheave	Motor Sheave	Turns Open	RPM

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-17.5 TON [61.5 kW]

	2600	5800	0009	6200	6400	0099	0089	7000	7200	7400	2600	7800	8000	8200	8400
CFW	[2643]	[2737]	[2831]	[2926]	[3020]	[3114]	[3209]	[3303]	[3398]	[3492]	[3586]	[3681]	[3775]	[3869]	[3964]
[۲/۶]						Resis	Resistance — Inches of Water [kPa]	Inches o	ıf Water	[kPa]					
Mot Coil	90.0	0.07	80.0	60.0	0.10	0.10	0.11	0.12	0.13	0.14	0.14	0.15	0.16	0.17	0.18
Welcoll	[.01]	[.02]	[.02]	[.02]	[.02]	[.02]	[:03]	[.03]	[.03]	[.03]	[.03]	[.04]	[.04]	[.04]	[.04]
Douglour	0.05	0.05	0.05	90.0	90.0	90.0	20.0	80.0	0.08	0.09	0.10	0.11	0.12	0.13	0.14
WO	[.01]	[.01]	[.01]	[.01]	[.01]	[.01]	[.02]	[.02]	[.02]	[.02]	[.02]	[:03]	[.03]	[:03]	[:03]
Downflow Economizer	0.12	0.13	0.13	0.14	0.15	0.16	0.16	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.24
R.A. Damper Open	[.03]	[.03]	[.03]	[.03]	[.04]	[.04]	[.04]	[.04]	[.04]	[.05]	[.05]	[.05]	[.05]	[90.]	[.06]
Horizontal Economizer	0.05	0.03	0.03	0.04	0.04	0.05	0.05	90.0	90.0	0.07	0.07	0.08	0.09	0.09	0.10
R.A. Damper Open	[.00]	[.01]	[.01]	[.01]	[.01]	[.01]	[.01]	[.01]	[.01]	[.02]	[.02]	[.02]	[.02]	[.02]	[.02]
Concentric Grill RXRN-AD80 or	0.35	0.39	0.43	0.46	0.50	0.54	29.0	0.61	0.64	0.68	0.72	0.75	0.79	0.83	98.0
RXRN-AD81 & Transition RXMC-CJ07	[.09]	[.10]	Ξ	Ξ.	E.	[.13]	[.14]	[.15]	[16]	[.17]	[.18]	[.19]	[.20]	[.21]	[.21]
Concentric Grill RXRN-AD86 &	0.14	0.17	0.20	0.23	0.26	0.29	0.32	0.35	0.38	0.41	0.44	0.47	0.50	0.53	0.56
Transition RXMC-CK08	[.03]	[.04]	[.05]	[90.]	[90.]	[.07]	[80.]	[60:]	[60:]	[.10]	<u>=</u>	[.12]	[.12]	[.13]	[14]

AIRFLOW CORRECTION FACTORS — 17.5 TON [61.5 kW]

ACTUAL—CFM 5600 5800 6000 6200 6400 6600 6800 7200 7400 7600 7800 8000 8200 8400 IL/s] [L/s] [2643] [2737] [2831] [3926] [3303] [3303] [3398] [3492] [3586] [3681] [3775] [3869] [3964] TOTAL MBUH 0.96 0.97 0.98 0.99 0.99 0.99 1.00 1.00 1.01																
[3020] [3144] [3209] [3303] [3398] [3492] [3586] [3681] [3775] 0.98 0.99 1.00 1.00 1.01 1.01 1.02 1.04 1.06 1.08 1.10 1.00 1.00 1.00 1.01 1.01 1.01 1.01 1.02 1.01 1.01 1.02 1.03 1.00 1.00 1.01 1.01 1.01 1.01 1.02 1.03	ACTUAL—CFM	2600	2800	0009	6200	6400	0099	0089	7000	7200	7400	7600	7800	8000	8200	8400
0.98 0.99 0.99 1.00 1.00 1.01 1.01 1.02 1.03 1.00 1.02 1.04 1.04 1.06 1.08 1.10 1.10 1.01 1.01 1.01 1.01 1.01 1.01 1.02 1.03 1.01 1.02 1.03 <th< th=""><th>[L/s]</th><th>[2643]</th><th>[2737]</th><th>[2831]</th><th>[2926]</th><th>[3020]</th><th>[3114]</th><th>[3209]</th><th>[3303]</th><th>[3398]</th><th>[3492]</th><th>[3286]</th><th>[3681]</th><th>[3775]</th><th>[3869]</th><th>[3964]</th></th<>	[L/s]	[2643]	[2737]	[2831]	[2926]	[3020]	[3114]	[3209]	[3303]	[3398]	[3492]	[3286]	[3681]	[3775]	[3869]	[3964]
0.94 0.96 0.98 1.00 1.02 1.04 1.04 1.06 1.08 1.10 1.00 1.00 1.00 1.01 1.01 1.01 1.01 1.02 capacity cannot exceed total capacity. Image: capacity cannot exceed total capacity. Image: capacity cannot exceed total capacity cannot exceed total capacity. Image: capacity cannot exceed total capacity capacity cannot exceed total capacity cannot exceed total capacity c	TOTAL MBUH	96.0	0.97	0.97	0.98	0.98	0.99	0.99	1.00	1.00	1.01	1.01	1.02	1.03	1.03	1.04
1.00 1.00 1.00 1.00 1.01 1.01 1.01 1.02 capacity cannot exceed total capacity. I Designates I	SENSIBLE MBUH	0.86	0.88	06:0	0.92	0.94	96.0	0.98	1.00	1.02	1.04	1.06	1.08	1.10	1.12	1.14
capacity cannot exceed total capacity.	POWER KW	0.99	0.99	66.0	0.99	1.00	1.00	1.00	1.00	1.01	1.01	1.01	1.01	1.02	1.02	1.02
	NOTES: Multiply correction	factor times gr	oss performar	nce data-resul	ting sensible	capacity cann	ot exceed tota	capacity.						Designates		nversions

AIRFLOW PERFORMANCE - 20 TON [70.3 kW]-SIDEFLOW (B240)

		_		-	-	2	က	4	9	6	2	9	0	4					Ι.		1
		[.50]	×	4121	4271	(4432	4603	4784	4976	3 5179	5392	3 5616	5850	8 6094					1		
		2.0 [.50]	RPM	937	944	950	957	964	971	826	986	993	1001	1008	1	1		1	1	1	
		.47]	>	3902	4056	4283	4448	4624	4810	2002	5214	5432	2660	5899	6148	6408	1	1	1	1	
		1.9 [.47]	RPM	923	930	933	940	947	954	962	696	977	982	993		1009	ı	1	1	1	
		45]		3761	3912	4072	4240	4417	4650	4841	5043	5255	5477	5710	5954 1001	3208	6472	6747	I	Ι	
		1.7 [.42] 1.8 [.45]	RPM W	906	912	919 4	7 97	932 4	938 4	945 4	953	961	696	977	985	993 6208 1009	1002	1010	ī	ī	
		2] 1	N R		3769	3926		$ldsymbol{ldsymbol{eta}}$		4637			2300	5528			6272 1		6821		
		7[.4	RPM W	888 3621	894 37	901 36	909 4091	916 4264	923 4447	930 46	936 4878	944 5084	952 53	961 55	969 5765	978 6013	79 986	995 6541	04 68	<u> </u>	
																			6616 1004	Ľ	
		3 [.40	W RPM W	869 3481	3626	4 3780	1 3942	8 4112	6 4292	4 4479	922 4675	930 4880	5 5130	944 5352	953 5584	2 5826	1 6079	0 6342	99 6	8 6901	
		-	R		4 876	4 884	4 891	1 898	906 /	2 914	5 92		936	94		296 5	2 971	086 6	8 989	968	
		[.37]		334	3484	3634	3794	881 3961	4137	4322	4515	4717	4927	931 5146	5408	5645	5892	6149	6418	699	
		1.5	RPIV	820	857	865	873		888	897	902	914	922	931	937	946	922	964	973	983	l
		.35	≥	3203	3342	3490	3646	863 3811	3984	4165	4356	4554	4761	4977	5201	5434	5712	949 5963	958 6225	6498	
		1.4 [.35] 1.5 [.37] 1.6 [.40]	RPM	830	838	846	854	863	871	879	888	897	906	915	924 5201	933	939	949	928	968 6498 983 6696	l
		1.2 [.30] 1.3 [.32]	W RPM W RPM W RPM W RPM W RPM	785 2789 810 3065 830 3203 850 3342	3201	3346	3499 854 3646	3661	3831	4009	4038 870 4197	4392	4596	4809	5030	5260	5498	5784	5274 899 5455 915 5636 931 5818 942 6040	6122 952 6307	
	_	1.3 [.	PM	810	819		835	844	853	862	870	880	886	868	206	917	927	933	942	952	
	[kPa		W	789	3060	3202 827	3352 835	511	3678	3854	038	4231 880	4432	4642	4860	2087	5322	5565 933	818	122	
	Vater	.2[.3	PM	85 2	798 3	807 3	16 3	825 3511			52 4	62 4	871 4	81 4	891 4		911 5		31 5		
	External Static Pressure—Inches of Water [kPa]	7	N R	7 07	2 80	2955 8	2977 796 3207 816	62 8	815 3526 834	3545 824 3699 843	3723 834 3880 852	844 4070 862		864 4475 881	8 06	884 4914 901		5209 905 5387 921	36 9	5709 926 5894 937	
	nche	1.0 [.25] 1.1 [.27]	Σ.	2328 719 2439 741 2553 763 2670	773 2808	783 25	90 32	805 3362	5 35	4 36	38	40	854 4268	44	4521 874 4690	14 46	14 5146	15 53	5 56	9 28	
	Ī	1	R P	33 76	35 77	32 97	32 /2	38 80		15 82	33 83	0 84		98 60	21 87	12 88	71 894	36 60	55 91	92	
	essu	[.25	> =	255	2685	2826	297	3139	3375	354	372	3910	4105	4309		4742	7 4971	3 520	9 545) 570	
	tic Pr		W RPM	3 741	1 751	2699 761	1 772	2999 783	262	805	7 815	3750 825	835	3 846	4352 856	298 (877	4854 871 5031 888	1 896	5526 910	
	l Sta	[.22]	≥	2436	2564		284		3165	3341	3567	3750	3942	4143	4352	4570	4796	203	527	5526	
	terna	0.9	RPM	719	2446 729	239	750	19/	3021 772	3190 783	3370 795	908	816	827	838	849	098	871	5094 882	894	
	Ä	0.8 [.20] 0.9 [.22]	≥	2328	2446	2574	2713 750 2844 772	2862 761	3021	3190	3370	3559	3780	3978	4184	4399	4622	4854	5094	5343	
		0.8	RPM	869	707	718		739	750	761	773	785	797	808	819	831	842	853	865	877	
		17]	>	2218	2330	2452	2585 728	2727	2880	3043	3216	3399	3592	3796	4017	4229	4449	4678	4915	5161	
		0.7 [.	PM	9/9	989	969		717	728	740		263	9//		800	812	824			859	
Se		[2]	3				458	594		268	064		-	625	832	029	4276	502	736	4979	
S Pha		.9.0	PM	354	364	374 2	384	395	2 90,	718 2897	729	741	754	292	280	7 262	7 208	317 4	329 4	342 4	
<u> </u>		2] (W	632 2007 654 2111	642 2106 664 2217	652 2215 674 2332	641 2213 663 2334 684 2458 706	630 2211 651 2336 673 2464 695 2594	2338 663 2470 684 2604 706 2741	754	914	. 980	265	456	. 29	. 898		327	558	823 4798 842	
0, 57		.5[.1	PM	32 2	42 2	52 2	63 2	73 2	84 2	36 2	.07	19 3	32 3	45 3	58 3	71 3	85 4	98 4	11 4	23 4	
0, 46		0 0	N	1	1	9 00	113	988	9 021	113 6	2 29.	31 7	05 7	2 06	184 7	2 689	04 7	29 7	81 8	117 8	
38/23		4[.1	M	1	1	630 2100	11 22	51 23	33 24	74 26	36 27	38 29	10 31	23 32	36 34	19 36	33 36	77 41	32 43)5 46	
ge 21		.]	/ R	_		\vdash	\vdash	11 6	38 66	9 2/	22 68	90 08	48 7	26 72	14 7;	12 7	21 76	39 7	98 79	07 80	
Volta		3 [.07	> =	1	1	<u> </u>	1	0 22		2 24	4 26	6 27	8 29	313	4 33	7 35	1 37	2 39	9 41	44	
Model RKNL-8240 Voltage 208/230, 460, 575 — 3 Phase		0.:	R	1	1	1	1	\vdash	641	2339 652 2475 674 2613 696 2754	642 2480 664 2622 686 2767 707 2914 729 3064 751	1 67	3 68	4 70	6 71	8 72	0 74	2 75	2 76	7 78	
-824		[.05	<u>></u>	1		1			1	233	248	. 263	279	296	314	333	354	375	397	420	l
X		0.1 [.02] 0.2 [.05] 0.3 [.07] 0.4 [.10] 0.5 [.12] 0.6 [.15]	RPM W RPM W RPM W RPM W RPM W RPM W RPM	1	1	1	1	1	1	630		632 2485 654 2631 676 2780 698 2931 719 3085 741 3241	999 (9 6 7 9	(692	3 705	1 719	733	3 747	762	
ode		[.02]	≥	1	1		1	1	1	1	Ι	248	2640	280	298(3166	.988	3567	3783	4010	
≊			RPIN	1	1	١	1	1	1	1	1		8200 [3870] 644 2640 666 2793 688 2948 710 3105 732 3265 754 3427	8400 [3964] 657 [2805] 679 [2964] 701 [3126] 723 [3290] 745 [3456] 767 [3625	8600 [4059] 670 [2980] 692 3146 714 3314 736 3484 758 3657 780 3832	8800 [4153] 683 3166 705 3338 727 3512 749 3689 771 3868 793 4059	9000 [4248] 697 3361 719 3540 741 3721 763 3904 785 4089	9200 [4342] 711 3567 733 3752 755 3939 777 4129 798 4327 817 4502 835	9400 [4436] 725 3783 747 3975 769 4168 792 4381 811 4558 829 4736 847	9600 [4531] 739 4010 762 4207 784 4407 805 4617	
	AIL Journal	CEM [1 /e]	[[-/3]	6400 [3020]	6600 [3115]	6800 [3209]	7000 [3304]	7200 [3398]	7400 [3492]	7600 [3587]	7800 [3681]	8000 [3776]	3870]	3964]	4059]	4153]	4248]	4342]	4436]	4531]	
•	A P		5	3400 [3600 [3800	2000	7200 [7400 [1 0092	2800	3000	3200 [3400 [3600	3800	1 0006	3200 [3400 [1 0096	
_		_					. `		. `			,~	~	, ~	~	, ~		,,,	, ,,		

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

Drive Package									Σ					N (f	N (field installed only)	lled only		
Motor H.P. [W]			5.0 [3728.5]	728.5]					7.5 [5592.7]	12.7]					7.5 [5592.7]	12.7]		
Blower Sheave			BK1	BK130H					BK130H	H					BK120H	돈		
Motor Sheave			1VP	1VP-56					1VP-71	71					1VP-71	7		
Turns Open	-	2	က	4	5	9	-	2	3	4	2	9	-	2	3	4	5	9
RPM	756	734	602	683	829	631	876	306	874	847	820	793	1009	981	922	928	899	870

NOTES: 1. Factory sheave settings are shown in bold type.
2. Do not set motor sheave below minimum turns open shown.

Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure.
 Drive data shown is for horizontal airflow with dry coil. Add component resistance (below) to duct resistance to determine total External Static Pressure.

COMPONENT AIRFLOW RESISTANCE—20 TON [70.3 kW] (B240)

	6400	0099	0089	2000	7200	7400	2600	7800	8000	8200	8400	8600	8800	0006	9200	9400	0096
CFM [1.6.]	[3020]			_			[3586]	[3681]	[3775]	_	_	[4058]			[4341]		[4530]
[۲/۵]							Resista	ance —	Inches (Resistance — Inches of Water [kPa	[kPa]						
Wet Coil	0.00	00.00	0.00	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.05	90.0	90.0	20.0	0.07
Wet coll	[.00]	[.00]	[.00]	[.00]	[.00]	[.00]	[.00]	[.01]	[.01]	[.01]	[.01]	[.01]	[.01]	[.01]	[.01]	[.02]	[.02]
	90.0	90.0	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]	[:02]	[.05]
Downflow Economizer	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
R.A. Damper Open	[.04]	[.04]	[.04]	[.04]	[.04]	[.05]	[:05]	[:05]	[:05]	[90.]	[.06]	[90.]	[.06]	[.07]	[.07]	[.07]	[.07]
Horizontal Economizer	0.04	0.05	0.05	90.0	90.0	0.07	0.07	0.08	0.09	0.09	0.10	0.10	0.11	0.11	0.12	0.12	0.13
R.A. Damper Open	[.01]	[.01]	[.01]	[.01]	[.01]	[.02]	[.02]	[.02]	[.02]	[.02]	[.02]	[.02]	[:03]	[:03]	[:03]	[:03]	[.03]
Concentric Grill RXRN-AD86	0.26	0.29	0.32	0.35	0.38	0.41	0.44	0.47	0.5	0.53	0.56	0.59	0.62	0.65	69.0	0.72	0.75
& Transition RXMC-CK08	[90:]	[.07]	[80.]	[60:	[00]	[10]	Ξ	[.12]	[.12]	.13	[14]	[15]	[15]	[16]	[.17]	[18]	[19]

AIRFLOW CORRECTION FACTORS - 20 TON [70.3 kW] (B240)

							(a. = _) [a.a]	-	1								
ACTUAL—CFM	6400	0099	0089	2000	7200	7400	0092	7800	8000	8200	8400	8600	8800	0006	9200	9400	0096
[L/s]	[3020]	[3114]	[3209]	[3303]	[3398]	[3492]	[3286]	[3681]	[3775]	[3869]	[3964]	[4058]	[4153]	[4247]	[4341]	[4436]	[4530]
TOTAL MBH	0.97	0.97	0.98	0.98	66.0	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	06:0	0.92	0.94	96.0	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 or	ction factor tin	nes gross pe	rformance da	ata-resulting	sensible cap	capacity canno	ot exceed tota	ul capacity.						[] Des	Designates №	Metric Conversions	iversions

AIRFLOW PERFORMANCE - 20 TON [70.3 kW]-60 Hz-SIDEFLOW (B241)

Г		20]		1549	1727	1914	5110	I	I	I	Ι	1	1	1	1		1		1	1
		1.1[.27] $1.2[.30]$ $1.3[.32]$ $1.4[.35]$ $1.5[.37]$ $1.6[.40]$ $1.7[.42]$ $1.8[.45]$ $1.9[.47]$ $2.0[.50]$		929 4056 948 4220 966 4384 984 4549	938 4230 956 4395 974 4561 992 4727	690 2313 712 2470 733 2628 754 2786 775 2946 795 3106 815 3266 835 3268 854 3590 874 3753 892 3917 911 4081 929 4246 941 9412 965 4579 983 474610004914	4603 974 4771 991 4940 1008 5110	ı	1	I	I	1	Ι	1		-	1	-	I	Ι
		47]		1384	1561	4746	1940	5143	5355	I	ı	1	1	1		-	1	-	1	ı
		1.9 [996	974	983	991	1000	1009	I	ı	1	1	1		-	1	-	1	ı
		42]		1220	1395	1579	1771	1973	1831	3402	ı	Ι	ı	ı	Ι	1	1	1	ı	Т
		1.8		948	926	965 4	974	983	992	522910025402	ı	Ι	Ι	Ι	Τ	Τ	Ι	Τ	Ι	ı
		45]	M	950	230	412	603	803	012	2291	5456	1691	Ι	ı	Ι	1	1	1	ı	Т
		.7.[.	RPM	329 4	338 4	347 4	957 4	996	376	985	995	005	1	1	Π	-		-	1	Т
		<u>-</u>	W	394 9	365	246	436	334	341			5161	85/	010		1	1	_	1	1
		.6 [.4	RPM	11 3	20 40	29 4;	39 4	49 4	59 4	68 5	79 5	89 5	66	5832 1009 6010	<u>.</u> 	<u>.</u> 		<u>.</u> 	i	ŀ
		7] 1		31 9	02 9	181	696	6 99	72 9	6 98	60	42 9	83 9	32 10	6091 -	<u>.</u> T	<u>.</u> I	<u>.</u> 	<u>.</u> I	<u> </u>
		5[3	M	32 37	11 39	1 40	1 42	31 44	11 46	1 48	32 51	72 53	33 22	94 58	04 60				÷	
		-	RPM	38 02	36 68	17 91	33 92	99 93	33 94	96	37 96	38 97	36 /(36 99	13/10	- 6,	 -		<u> </u>	
		.[.35	W	357	2 373	2 391	3 410	3 429	4 420	4 471	5 493	3 516	7 540	3 565	9 591	0 617		-	 -	1
		1.4	W RPM	9 87	7 88,	3 89,	8 90;	2 91	4 92	6 93	94!	5 95(3 96	0 978	5 98	0 100	3	- 9		1
		[.32]	8	.9 2461 750 2617 771 2774 792 2932 813 3090 833 3250 853 3409 872 3570 892 3731 911 3894	.1 2619 762 2777 783 2936 804 3095 824 325 5 844 3415 863 3577 882 3739 901 3902 920 4065	375,	393	413,	433	454	<u>8 3754 837 3921 856 4089 874 4257 892 4426 910 4596 928 4766 945 4937 962 5109 979 5282 </u>	1 3974 850 4142 868 4312 886 4481 904 4652 921 4823 939 4995 956 5168 972 5342 989 5516 1005 5691	14 4203 862 4373 881 4543 898 4715 916 4887 <u> 933 5060 </u> 950 5233 967 5407 983 5583 999 5758	548	1 4687 889 4860 906 5034 <u> 923 5208 940 5383 </u> 956 5559 973 5735 989 5913 1004	1009	ı8 5206 915 5382 <u>932 5559</u> 948 5736 964 5915 980 6093 996 6273	8 6555		1
	[e]	1 .3	RPM	823	863	874	884	895	906	917	928	939	920	961	973	984	966	1008		1
	er [RP	.30	8	3250	3415	3290	3774	3966	4167	4377	4596	4823	5060	5305	5229	5822	6093	6374	6999	I
	External Static Pressure—Inches of Water [kPa]	1.2 [RPM W	833	844	854	865	9/8	887	899	910	921	933	945	926	896	980	2 5479 929 5657 945 5835 961 6014 977 6194 992 6374 1008	1005	ı
	es of	27]	W	3090	3255	3428	3610	3801	1000	1209	1426	1652	1887	5131	5383	5644	5915	3194	3481	3778
	-Inch	=======================================	RPM	813	824	832	846	857	7 698	7 088	892	904	916	928	940	952	964) 226) 686	002
	-inre-	. 22		932	095	266	447	989	834	041	257	481	715	957	208	468	136	014	300	595 1
	Press		PM	36 5	04 3	15 3	27 3	38 3	50 3	62 4	74 4	86 4	98 4	114	23 5	36 5	48 5	61 6	74 6	87 6
	tatic	0.8 [.20] 0.9 [.22] 1.0 [.25]	W RPM W	747	36 8	8 90	8 283	172 8	8 699	374 8	8 680	312 8	343 8	84 9	34 9	92 9	929	335 9	20 9	<u>·0 6052 </u> 956 6232 971 6413 987 6595 1002 6778
	nal S	.9[.2	RPM \	71 27	83 26	95 31	07 32	19 32	31 36	43 38	56 40	68 43	81 45	93 47)6 SC	19 52	32 55	45 58	58 61	71 62
	Exter	0]		17 7	77 7	46 7	23 8	8 60	04 8	.08 8	21 8	42 8	173 8	128	6 09	17 9	82 9	57 9	40 9	32 9
		8[.2	RPM W	50 26	32 27	75 29	37 31	39 33	12 35	24 37	37 39	50 41	32 43	75 46	39 48)2 51	15 53	<u> 29 56</u>	12 <u>5</u> 8	56 62
				61 75	19 76	2 98	62 78	47 79	41 8-	43 82	54 83	74 8	03 86	41 87	82 88	42 9(-6 90	26 62	61 97	52 99
4		7 [.17]	W	9 24	1 26	4 27	6 29	9	2 33	5 35	8 37	1 39	4 42	7 44	1 46	4 49	8 52	2 54	6 57	09 0
_		0	RP	12 91	2 74	8 75	12 76	12 77	7 79	80	81	93	84	0 85	2 87	88 69	11 89	13 91	3 92	7 94
hase		1.15	M	685 2151 707 2306 72	698 2306 720 2462 74	3 262	3 280	9 298	2 317	5 337	3 358	2 380	5 403	9 427	3 451	7 476	1 503	5 530	9 558	3 587
13.		0.6	RPI	1 70	6 72	0 73	3 74	5 75	5 77	4 78	3 79	0 81	5 82	0 83	3 85	.98 9	2 88	68	2 90	3 92
575		[.12	M	5 215	3 230	2 247	5 264	3 282	301	321	342	3 364	386) 410	5 434	9 459	3 485	512	540	269
460,		0.5	RPI	-		3 712	4 725	5 738	4 752	1 76	8 779	3 793	8 806	1 82(3 835	3 846	3 863	1 877	68 8	4 907
230,		<u>[</u>	8		1	231	248	266	582	302	325	347;	369	393	417;	442;	468;	495	522	551
208/		0.4	RPM W RPM W RPM W RP	1	1	069	704	717	731	745	759	773	787	802	816	830	845	860	875	830
Voltage 208/230, 460, 575 — 3 Phase 60		0.1 [.02] 0.2 [.05] 0.3 [.07] 0.4 [.10] 0.5 [.12] 0.6 [.15] 0.	×	I	Ι	1	682 2327 704 2484 725 2643 746 2802 766 2962 787 3123 807 3285 827 3447 846 3610 865 3774 884 3938 903 4103 921 4269 339 4436	696 2505 717 2665 738 2825 759 2985 779 3147 799 3309 819 3472 838 3636 857 3801 876 3966 895 4132 913 4299 931 4466 949 4634 966 4803 983 4973 1000 5143	689 2533 710 2693 731 2854 752 3015 772 3177 792 3341 812 3504 831 3669 850 3834 869 4000 887 4167 906 4334 924 4503 941 4672 954 4841 976 5012 992 518310095355	7600 [3586] 682 [2566] 704 [2727] 724 [2889] 745 [3051] 765 [3214] 785 [3378] 805 [3543] 824 [3708] 843 [3874] 862 [4041] 880 [4209] 899 [4377] 917 [4546] 934 [4716] 951 [4886] 968 [5057]	7800 [3681] 697 2768 718 2931 739 3094 759 3258 779 3423 798 3588 <u> </u> 81	8000 [3775] 712 2979 733 3143 753 3308 773 3473 793 3640 812 3806 <mark> 83</mark>	8200 [3869] 728 3199 748 3365 768 3531 787 3698 806 3865 825 4034 84	8400 [3964] 743 [3428] 763 [3595] 782 [3762] 802 [3931 [820 4100] 839 [4270] 857 [4441 875 [4612] 893 [4784] 911 [4957] 928 [5131] 945 [5305] 961 [5480] 978 [5656] 994	8600 [4058] 758 3665 778 3834 797 4003 <u> 816 4173 835 4343 </u> 853 4515 87	8800 [4153] 774 [3911] 793 [4081] 812 [4252] 830 [4423] 849 [4596] 867 [4769] 884 [4942] 902 [5117] 919 [5292] 936 [5468] 952 [5644] 968 [5822] 984 [6000] 1000 [6179]	9000 [4247] 790 4166 808 4338 <u> 827 4510 </u> 845 4683 863 4857 881 5031 89	9200 [4341] 805 4430 <u> 824 4603 842 4777</u> 860 4951 877 5127 895 5303 91	9400 [4436] 821 4703 839 4877 857 5052 875 5229 892 5405 909 5583 926 5761 942 5940 958 6120 974 6300 989 6481 1005 6663	9600 [4530] [837 4984 855 5160 872 5337 890 5514 907 5693 923 5872 <mark> 94</mark>
		0.3	RPM W	I	Ι	1	682	969	710	724	739	753	768	782	797	812	827	842	857	872
Model RKNL-B241		[2	8	1	1	1	1	I	533	727	331	1143	3965	3595	1834	1081	1338	1603	1877	160
NI-B		0.2[.	RPM W RPM W	I	1		Ι	I	389 2	704 2	718 2	733 3	748 3	763 3	778 3	793 4	308 4	324 4	339 4	355 5
풀		12]	W	П	1			I	1	2 999	2 892	979 7	199 7	428 7	992	911 7	166	430 8	203	384 8
Mod		1.0	М	<u> </u>		<u>'</u> 	<u>'</u> 	1	<u>'</u> 	82 25	97 27	12 25	28 31	43 34	58 36	74 39	90 41	05 44	21 47	37 45
H	Ш	_		_		_	_	_		9 [9	11] 6	7 [5	.6] <u> </u> 2	4] 7.	8] 7	3] 7	7][7	1] 8	.6] 8	0] 8
;	¥ .	CEM [1 /c]	וו וביים	6400 [3020]	6600 [3114]	6800 [3209]	7000 [3303]	7200 [3398]	7400 [3492]	[358	[368	[377	[386	[396	[405	[415	[424	[434	[443	[453
Ι.	- <u>-</u>	7	5	6400	0099	6800	7000	7200	7400	7600	7800	8000	8200	8400	8600	8800	9000	9200	9400	9600
_														-50	٠٠٠	,,,				

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

d only)	7]			4 5 6	921 892 863
l(field installed only)	7.5 [5592.7]	BK120H	1VP-71	က	949
N(fie				2	8/6
				1	1007
				9	262
				5	824
	92.7]	H	71	4	851
M	7.5 [5592.7]	BK130H	1VP-71	က	878
				2	902
				1	932
				9	684
				2	712
	.0 [3728.5]	BK120H	1VP-56	4	742
_	5.0 [3	BK1	1VF	3	798 771
				2	798
				-	822
Drive Package	Motor H.P. [W]	Blower Sheave	Motor Sheave	Turns Open	RPM

NOTES: 1. Factory sheave settings are shown in bold type.
2. Do not set motor sheave below minimum turns open shown.

Re-adjustment of sheave required to achieve rated airflow at AHRI minimum External Static Pressure.
 Drive data shown is for horizontal airflow with dry coil. Add component resistance (below) to duct resistance to determine total External Static Pressure.

COMPONENT AIRFLOW RESISTANCE—20 TON [70.3 kW] (B241)

						Compon	Component Airflow Resistance	Resistance		
Airflow CFM [L/s]	Air	Airflow Correction Factors*	**	Wet Coil	Downflow	Downflow Economizer RA Damper Open	Horizontal Economizer RA Damper Open	Concentric Grill RXRN-AD80 or RXRN-AD81 & Transition RXMC-CJ07	Concentric Grill RXRN-AD86 & Transition RXMC-CK08	Concentric Grill RXRN-AD88 & Transition RXMC-CL09
	Total MBH	Sensible MBH	Power kW			Resis	Resistance — Inches of Water [kPa]	ater [kPa]		
6400 [3020]	26:0	0.88	0.98	0.01 [.00]	0.06 [.01]	0.15 [.04]	0.04 [.01]	0.50 [.12]	1	7.1
6600 [3114]	0.97	06.0	0.99	0.02 [.00]	0.06 [.01]	0.16 [.04]	0.05 [.01]	0.54 [.13]	I	7.5
6800 [3209]	0.98	0.92	0.99	0.03 [.01]	0.07 [.02]	0.16 [.04]	0.05 [.01]	1	1	7.8
7000 [3303]	0.98	0.94	0.99	0.03 [.01]	0.08 [.02]	0.17 [.04]	0.06 [.01]	1	1	8.2
7200 [3398]	0.99	96.0	0.99	0.04 [.01]	0.08 [.02]	0.18 [.04]	0.06 [.01]	1	0.38 [.09]	8.6
7400 [3492]	0.99	0.97	1.00	0.05 [.01]	0.09 [.02]	0.19 [.05]	0.07 [.02]	I	0.41 [.10]	9.0
7600 [3586]	1.00	0.99	1.00	0.06 [.01]	0.10 [.02]	0.20 [.05]	0.07 [.02]	1	0.44 [.11]	9.5
7800 [3681]	1.00	1.01	1.00	0.06 [.01]	0.11 [.03]	0.21 [.05]	0.08 [.02]	1	0.47 [.12]	9.6
8000 [3775]	1.01	1.03	1.00	0.07 [.02]	0.12 [.03]	0.22 [.05]	0.09 [.02]	1	0.50 [.12]	
8200 [3869]	1.01	1.05	1.01	0.08 [.02]	0.13 [.03]	0.23 [.06]	0.09 [.02]	1	0.53 [.13]	
8400 [3964]	1.02	1.07	1.01	0.09 [.02]	0.14 [.03]	0.24 [.06]	0.10 [.02]	1	0.56 [.14]	
8600 [4058]	1.02	1.09	1.01	0.09 [.02]	0.15 [.04]	0.25 [.06]	0.10 [.02]	_	0.59 [.15]	
8800 [4153]	1.03	1.10	1.01	0.10 [.02]	0.16 [.04]	0.26 [.06]	0.11 [.03]	1	0.62 [.15]	
9000 [4247]	1.03	1.12	1.01	0.11 [.03]	0.18 [.04]	0.27 [.07]	0.11 [.03]	1	1	
9200 [4341]	1.03	1.14	1.02	0.12 [.03]	0.19 [.05]	0.28 [.07]	0.12 [.03]	1	1	
9400 [4436]	1.04	1.16	1.02	0.12 [.03]	0.20 [.05]	0.29 [.07]	0.12 [.03]	I	1	
9600 [4530]	1.04	1.18	1.02	0.13 [.03]	0.22 [.05]	0.30 [.07]	0.13 [.03]	_	-	

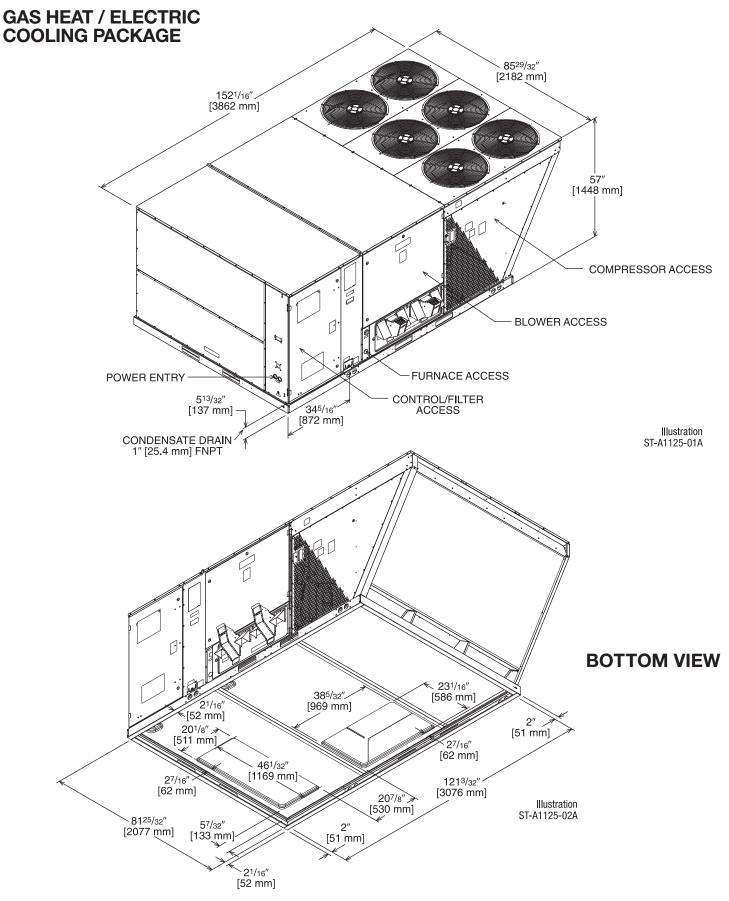
* Multiply correction factor times gross performance data-resulting sensible capacity cannot exceed total capacity.

		ELEC	TRICAL [DATA – R	KNL-B SI	ERIES				
		B180CL	B180CM	B180DL	B180DM	B180YL	B180YM	B210CL	B210CM	B210DL
_	Unit Operating Voltage Range	187-253	187-253	414-506	414-506	518-632	518-632	187-253	187-253	414-506
atio	Volts	208/230	208/230	460	460	575	575	208/230	208/230	460
Ĕ	Minimum Circuit Ampacity	78/78	81/81	38	40	28	30	88/88	91/91	44
Unit Information	Minimum Overcurrent Protection Device Size	90/90	90/90	45	45	30	35	100/100	100/100	50
n	Maximum Overcurrent Protection Device Size	100/100	100/100	45	50	35	35	110/110	110/110	50
	No.	2	2	2	2	2	2	2	2	2
ĺ	Volts	200/230	200/230	460	460	575	575	200/230	200/230	460
<u> </u>	Phase	3	3	3	3	3	3	3	3	3
Mot	RPM	3450	3450	3450	3450	3450	3450	3450	3450	3450
or	HP, Compressor 1	7	7	7	7	7	7	7 1/2	7 1/2	7 1/2
Compressor Motor	Amps (RLA), Comp. 1	25/25	25/25	12.2	12.2	9	9	29.5/29.5	29.5/29.5	14.7
E D	Amps (LRA), Comp. 1	164/164	164/164	100	100	78	78	195/195	195/195	95
ပိ	HP, Compressor 2	7	7	7	7	7	7	7 1/2	7 1/2	7 1/2
	Amps (RLA), Comp. 2	25/25	25/25	12.2	12.2	9	9	29.5/29.5	29.5/29.5	14.7
	Amps (LRA), Comp. 2	164/164	164/164	100	100	78	78	195/195	195/195	95
_	No.	4	4	4	4	4	4	4	4	4
loto	Volts	208/230	208/230	460	460	575	575	208/230	208/230	460
er N	Phase	1	1	1	1	1	1	1	1	1
Condenser Motor	HP	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3
puo	Amps (FLA, each)	2.4/2.4	2.4/2.4	1.4	1.4	1	1	2.4/2.4	2.4/2.4	1.4
၁	Amps (LRA, each)	4.7/4.7	4.7/4.7	2.4	2.4	1.8	1.8	4.7/4.7	4.7/4.7	2.4
	No.	1	1	1	1	1	1	1	1	1
Fan	Volts	208/230	208/230	460	460	575	575	208/230	208/230	460
Į į	Phase	3	3	3	3	3	3	3	3	3
oora	HP	3	5	3	5	3	5	3	5	3
Evaporator Fan	Amps (FLA, each)	11.5/11.5	14.9/14.9	4.6	6.6	3.5	5.3	11.5/11.5	14.9/14.9	4.6
- 1	Amps (LRA, each)	74.5/74.5	82.6/82.6	38.1	46.3	20	39.4	74.5/74.5	82.6/82.6	38.1

ELECTRICAL DATA – RKNL-B SERIES										
		B210DM	B210YL	B210YM	B240CL	B240CM	B240CN	B240DL	B240DM	B240DN
Unit Information	Unit Operating Voltage Range	414-506	518-632	518-632	187-253	187-253	187-253	414-506	414-506	414-506
	Volts	460	575	575	208/230	208/230	208/230	460	460	460
	Minimum Circuit Ampacity	46	35	37	101/101	109/109	109/109	52	56	56
	Minimum Overcurrent Protection Device Size	50	40	40	110/110	125/125	125/125	60	60	60
	Maximum Overcurrent Protection Device Size	50	45	45	125/125	125/125	125/125	60	70	70
	No.	2	2	2	2	2	2	2	2	2
	Volts	460	575	575	200/230	200/230	200/230	460	460	460
=	Phase	3	3	3	3	3	3	3	3	3
Mot	RPM	3450	3450	3450	3450	3450	3450	3450	3450	3450
l ö	HP, Compressor 1	7 1/2	7 1/2	7 1/2	10	10	10	10	10	10
ress	Amps (RLA), Comp. 1	14.7	12.2	12.2	33.3/33.3	33.3/33.3	33.3/33.3	17.9	17.9	17.9
Compressor Motor	Amps (LRA), Comp. 1	95	80	80	239/239	239/239	239/239	125	125	125
3	HP, Compressor 2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2
	Amps (RLA), Comp. 2	14.7	12.2	12.2	29.5/29.5	29.5/29.5	29.5/29.5	14.7	14.7	14.7
	Amps (LRA), Comp. 2	95	80	80	195/195	195/195	195/195	95	95	95
_	No.	4	4	4	6	6	6	6	6	6
] de	Volts	460	575	575	208/230	208/230	208/230	460	460	460
e e	Phase	1	1	1	1	1	1	1	1	1
Condenser Motor	HP	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3
ou o	Amps (FLA, each)	1.4	1	1	2.4/2.4	2.4/2.4	2.4/2.4	1.4	1.4	1.4
	Amps (LRA, each)	2.4	1.8	1.8	4.7/4.7	4.7/4.7	4.7/4.7	2.4	2.4	2.4
	No.	1	1	1	1	1	1	1	1	1
Evaporator Fan	Volts	460	575	575	208/230	208/230	208/230	460	460	460
	Phase	3	3	3	3	3	3	3	3	3
	HP	5	3	5	5	7 1/2	7 1/2	5	7 1/2	7 1/2
	Amps (FLA, each)	6.6	3.5	5.3	14.7/14.7	23.1/23.1	23.1/23.1	6.6	9.6	9.6
	Amps (LRA, each)	46.3	20	39.4	82.6/82.6	136/136	136/136	46.3	67	67

		B240YL	B240YM	B240YN
	Unit Operating Voltage Range	518-632	518-632	518-632
tion —	Volts	575	575	575
ı ı	Minimum Circuit Ampacity	40	42	42
Unit Information	Minimum Overcurrent Protection Device Size	45	50	50
<u> </u>	Maximum Overcurrent Protection Device Size	50	50	50
	No.	2	2	2
	Volts	575	575	575
<u> </u>	Phase	3	3	3
Mot	RPM	3450	3450	3450
100	HP, Compressor 1	10	10	10
Compressor Motor	Amps (RLA), Comp. 1	12.8	12.8	12.8
d —	Amps (LRA), Comp. 1	80	80	80
ప 🖳	HP, Compressor 2	7 1/2	7 1/2	7 1/2
	Amps (RLA), Comp. 2	12.2	12.2	12.2
	Amps (LRA), Comp. 2	80	80	80
_	No.	6	6	6
월	Volts	575	575	575
er N	Phase	1	1	1
ens	HP	1/3	1/3	1/3
Condenser Motor	Amps (FLA, each)	1	1	1
<u>د</u>	Amps (LRA, each)	1.8	1.8	1.8
	No.	1	1	1
Fan	Volts	575	575	575
Į.	Phase	3	3	3
30ra	HP	5	7 1/2	7 1/2
Evaporator Fan	Amps (FLA, each)	5.3	7.8	7.8
-	Amps (LRA, each)	39.4	53.8	53.8

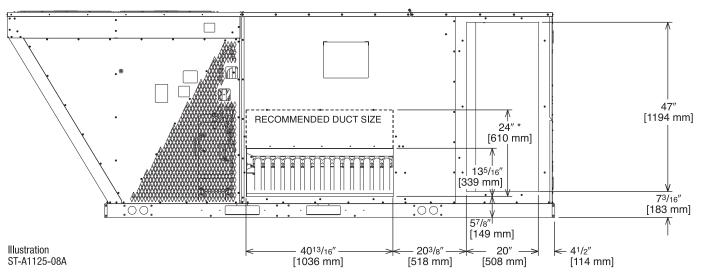
ELECTRICAL DATA – RKNL- SERIES								
		B241CL	B241CM	B241DL	B241DM	B241YL	B241YM	
	Unit Operating Voltage Range	187-253	187-253	414-506	414-506	518-632	518-632	
ioi	Volts	208/230	208/230	460	460	575	575	
Unit Information	Minimum Circuit Ampacity	95/95	103/103	49	52	37	39	
	Minimum Overcurrent Protection Device Size	110/110	125/125	60	60	40	45	
	Maximum Overcurrent Protection Device Size	110/110	125/125	60	60	45	50	
	No.	2	2	2	2	2	2	
	Volts	200/230	200/230	460	460	575	575	
=	Phase	3	3	3	3	3	3	
Motr	RPM	3450	3450	3450	3450	3450	3450	
or I	HP, Compressor 1	10	10	10	10	10	10	
Compressor Motor	Amps (RLA), Comp. 1	30.1/30.1	30.1/30.1	16.7	16.7	12.2	12.2	
ш	Amps (LRA), Comp. 1	225/225	225/225	114	114	80	80	
ప	HP, Compressor 2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	
	Amps (RLA), Comp. 2	27.6/27.6	27.6/27.6	12.8	12.8	9.6	9.6	
	Amps (LRA), Comp. 2	191/191	191/191	100	100	78	78	
	No.	6	6	6	6	6	6	
Compressor Motor	Volts	208/230	208/230	460	460	575	575	
or I	Phase	1	1	1	1	1	1	
res	HP	1/3	1/3	1/3	1/3	1/3	1/3	
ф	Amps (FLA, each)	2.4/2.4	2.4/2.4	1.4	1.4	1	1	
ວັ	Amps (LRA, each)	4.7/4.7	4.7/4.7	2.4	2.4	1.8	1.8	
	No.	1	1	1	1	1	1	
Fan	Volts	208/230	208/230	460	460	575	575	
Evaporator Fan	Phase	3	3	3	3	3	3	
	HP	5	7 1/2	5	7 1/2	5	7 1/2	
	Amps (FLA, each)	14.7/14.7	23.1/23.1	6.6	9.6	5.3	7.8	
	Amps (LRA, each)	82.6/82.6	136/136	46.3	67	39.4	53.8	





GAS HEAT / ELECTRIC COOLING PACKAGE

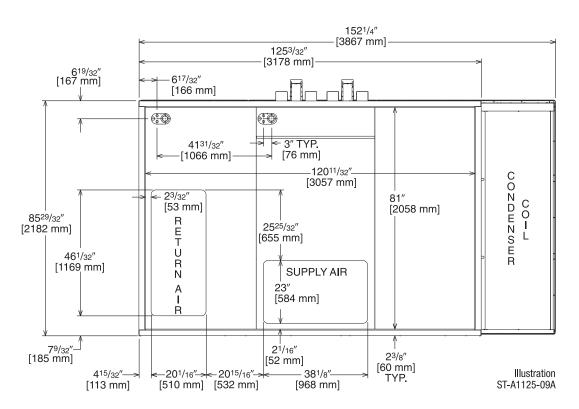
SUPPLY AND RETURN DIMENSIONS FOR HORIZONTAL APPLICATIONS



* RECOMMENDED DUCT CONNECTION SIZE

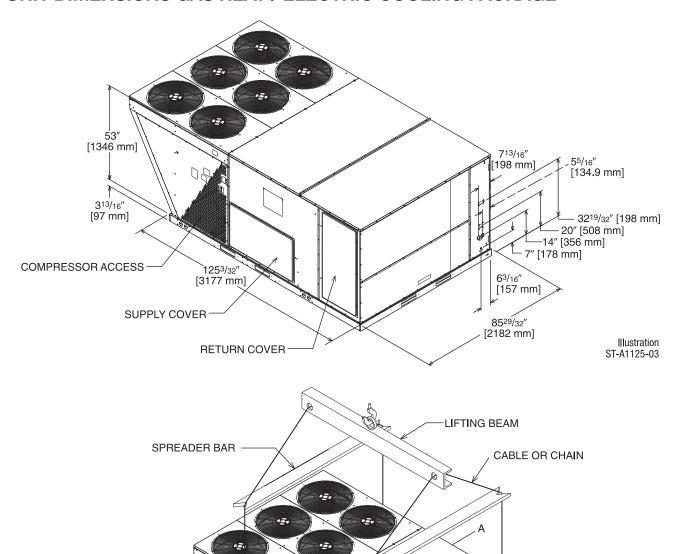
DUCT SIDE VIEW (REAR)

SUPPLY AND RETURN DIMENSIONS FOR DOWNFLOW APPLICATIONS



BOTTOM VIEW

UNIT DIMENSIONS GAS HEAT / ELECTRIC COOLING PACKAGE



WEIGHTS

Accessory	Shipping—lbs [kg]	Operating—lbs [kg]	
Economizer—Downflow	155 [70.31]	146 [66.22]	
Economizer—Horizontal	165 [74.80]	155 [70.31]	
Fresh Air Damper (Manual)	51 [23.13]	40 [18.14]	
Fresh Air Damper (Motorized)	46 [20.87]	35 [15.88]	
Roof Curb 14"	170 [77.11]	164 [74.39]	

5/8" [15.9 mm] — SHACKLE (EACH CORNER)

Corner Weights by Percentage Capacity Tons [kW] Α В С D 15-20 [52.8-70.3] 32% 27% 16% 24%

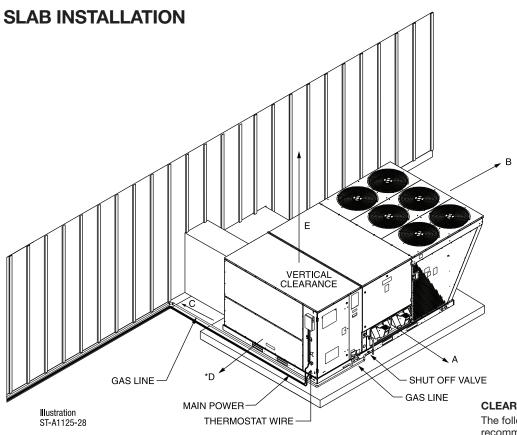
Corner weights measured at base of unit.

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C.

^[] Designates Metric Conversions



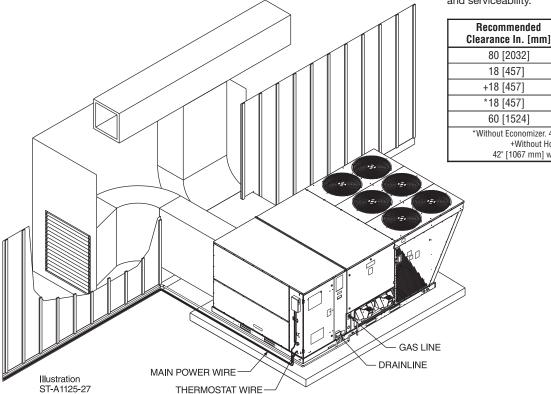
CLEARANCES

Recommended

80 [2032]

18 [457]

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



THERMOSTAT WIRE

+18 [457] +C - Duct Side *18 [457] *D - Evaporator End 60 [1524] E - Above *Without Economizer. 48" [1219 mm] With Economizer

+Without Horizontal Economizer, 42" [1067 mm] with Horizontal Economizer

Location

B - Condenser Coil

A - Front

FIELD INSTALLED ACCESSORY EQUIPMENT

Accessory	Model Number	Shipping Weight Lbs. [kg]	Installed Weight Lbs. [kg]	Factory Installation Available?
Downflow Economizer w/Single Enthalpy	AXRD-PGCM3			Yes
Downflow Economizer w/Smoke Detector	AXRD-SGCM3			Yes
Dual Enthalpy Kit	RXRX-AV02	1 [.5]	1 [.5]	No
Horizontal Economizer w/Single Enthalpy	AXRD-RGCM3			No
Carbon Dioxide Sensor (Wall Mount)	RXRX-AR02	3 [1.4]	2 [1.0]	No
Power Exhaust (208/230V)	RXRX-BGF05C	102 [46.3]	69 [31.3]	No
Power Exhaust (460V)	RXRX-BGF05D	102 [46.3]	69 [31.3]	No
Power Exhaust (575V)	RXRX-BGF05Y	102 [46.3]	69 [31.3]	No
Manual Fresh Air Damper*	AXRF-KFA1	61 [27.7]	52 [23.6]	No
Motorized Kit for Manual Fresh Air Damper*	RXRX-AW03	42 [19.1]	35 [15.9]	No
Roofcurb, 14"	RXKG-CBH14			No
Roofcurb Adapter to RXRK-E56	RXRX-CJCE56			No
Roofcurb Adapter to RXKG-CAF14	RXRX-CJCF14			No
Concentric Diffuser (Step-Down, 18" x 36")	RXRN-AD81	310 [140.6]	157 [71.2]	No
Concentric Diffuser (Step-Down, 24" x 48")	RXRN-AD86	367 [166.4]	212 [96.1]	No
Concentric Diffuser (Step-Down, 28" x 60")	RXRN-AD88			No
Concentric Diffuser (Flush, 18" x 36")	RXRN-AD80	213 [96.6]	115 [52.2]	No
Downflow Transition (Rect. to Rect., 18" x 36")	RXMC-CJ07			No
Downflow Transition (Rect. to Rect., 24" x 48")	RXMC-CK08			No
Downflow Transition (Rect. to Rect., 28" x 60")	RXMC-CL09			No
Low-Ambient Control Kit (1 Per Compressor)	RXRZ-C02	3 [1.4]	2 [1.0]	Yes
Freeze-Stat Kit	RXRX-AM03	1 [.5]	0.5 [.2]	Yes
Unwired Convenience Outlet	RXRX-AN01	2 [1.0]	1.5 [.7]	Yes
Unfused Service Disconnect+	RXRX-AP01	10 [4.5]	9 [4.1]	Yes
Hail Guard Louvers	AXRX-AAD01L	55 [24.8]	45 [20.3]	Yes

^{*}Motorized Kit and Manual Fresh Air Damper must be combined for a complete Motorized Outside Air Damper Selection.

⁺Do not use on RKNL-B240C voltage models.

ECONOMIZERS

Application.

 Optional Remote Minimum Position Potentiometer (Honeywell #S963B1128) is Available from Prostock.

■ Field Installed Power Exhaust Available

Use to Select Factory Installed Options Only [254 mm] AXRD-PGCM3—Single Enthalpy (Outdoor) AXRD-SGCM3-Single Enthalpy (Outdoor) with Smoke Detector RXRX-AV02—Dual Enthalpy Upgrade Kit RXRX-AR02-Optional Wall-Mounted CO, Sensor ■ Features Honeywell Controls Available Factory Installed or Field Accessory 52" [1321 mm] ■ Gear Driven Direct Drive Actuator ■ Fully Modulating (0-100%) ECONOMIZER: **ACTUATOR** Low Leakage Dampers ■ Slip-In Design for Easy Installation ■ Plug-In Polarized 12-pin Electrical Connections ■ Pre-Configured — No Field Adjustments DISCHARGE SENSOR (STRAPPED TO WIRE Necessary HARNESS) Standard Barometric Relief Damper Single Enthalpy with Dual Enthalpy Upgrade 0 BAROMETRIC Kit Available RELIEF ■ CO₂ Input Sensor Available 583/4 [1493 mm] ■ Field Assembled Hood Ships with Economizer 241/8" ■ Economizer Ships Complete for Downflow Duct **ENTHALPY SENSOR** [613 mm]

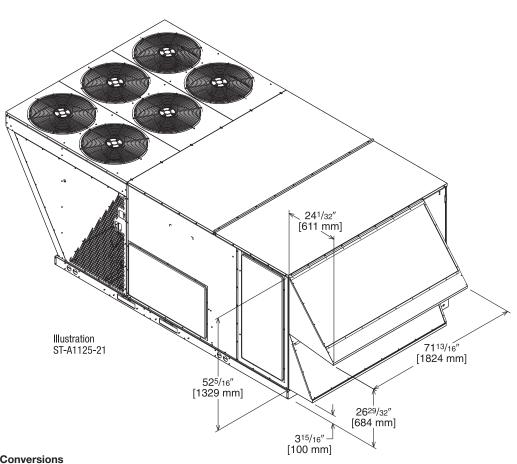
Illustration

ST-A1125-19

TOLERANCE ± 125

ECONOMIZER CONTROLLER

SMOKE DETECTOR LOCATION



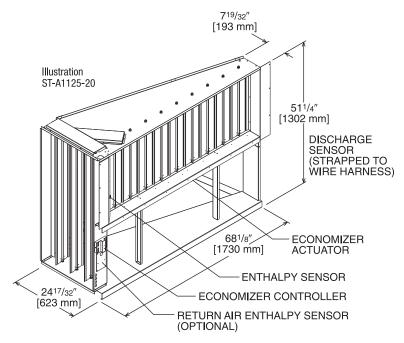
ECONOMIZER FOR HORIZONTAL DUCT INSTALLATION

AXRD-RGCM3—Single Enthalpy (Outdoor) AXRX-AV02—Dual Enthalpy Upgrade Kit RXRX-AR02-Wall-mounted CO, Sensor

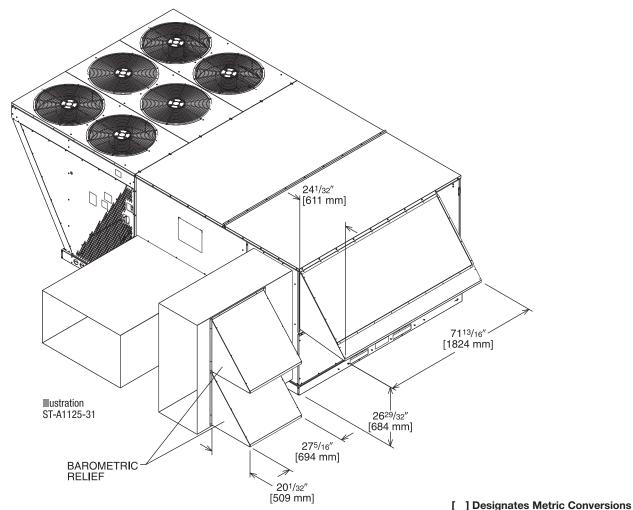
- Features **Honeywell** Controls
- Available as a Field Installed Accessory Only
- Gear Driven Direct Drive Actuator
- Fully Modulating (0-100%)
- Low Leakage Dampers

Field Installed Only

- Slip-In Design for Easy Installation
- Plug-In Polarized 12-pin Electrical Connections
- Pre-Configured No Field Adjustments Necessary
- Standard Barometric Relief Damper
- Single Enthalpy with Dual Enthalpy Upgrade Kit Available
- CO₂ Input Sensor Available
- Field Assembled Hood Ships with Economizer
- Economizer Ships Complete for Horizontal Duct Application
- Optional Remote Minimum Position Potentiometer (Honeywell #S963B1128) is Available from Prostock
- Field Installed Power Exhaust Available



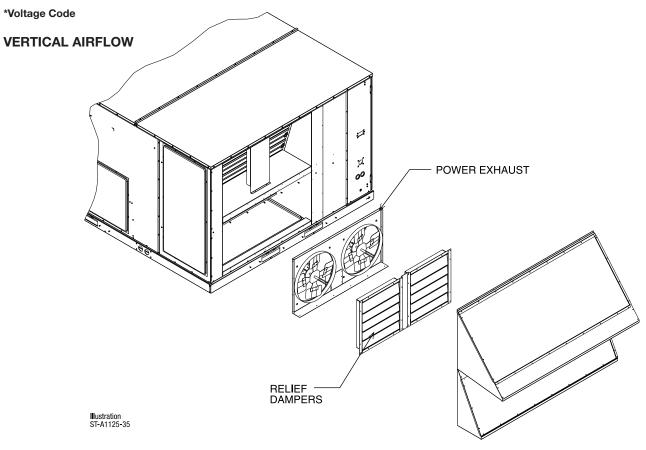
TOLERANCE ± .125





POWER EXHAUST KIT FOR RXRD-PGCM3 & SGCM3 ECONOMIZERS

RXRX-BGF05 (C, D, or Y*)



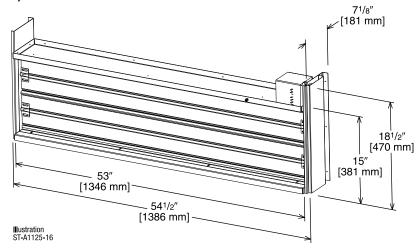
Model No.	No.	Volts	Phase	HP	Low Spec	ed	High Spee	d ①	FLA	LRA
Miduel No.	of Fans	VUILS	riiasc	(ea.)	CFM [L/s] ②	RPM	CFM [L/s] ②	RPM	(ea.)	(ea.)
RXRX-BGF05C	2	208-230	1	0.75	4100 [1935]	850	5200 [2454]	1050	5	4.97
RXRX-BGF05D	2	460	1	0.75	4100 [1935]	850	5200 [2454]	1050	2.2	3.4
RXRX-BGF05Y	2	575	1	0.75	4100 [1935]	850	5200 [2454]	1050	1.5	2.84

NOTES: $\ensuremath{\mathfrak{D}}$ Power exhaust is factory set on high speed motor tap.

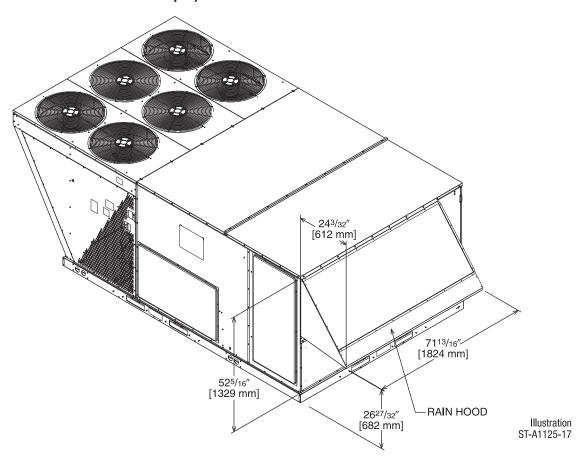
② CFM is per fan at 0" w.c. external static pressure.

FRESH AIR DAMPER

MOTORIZED DAMPER KIT RXRX-AWO3 (Motor Kit for RXRF-KFA1)



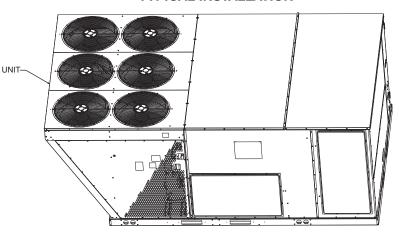
AXRF-KFA1 (Manual) AXRX-AWO3 (Motorized damper kit for manual fresh air damper)



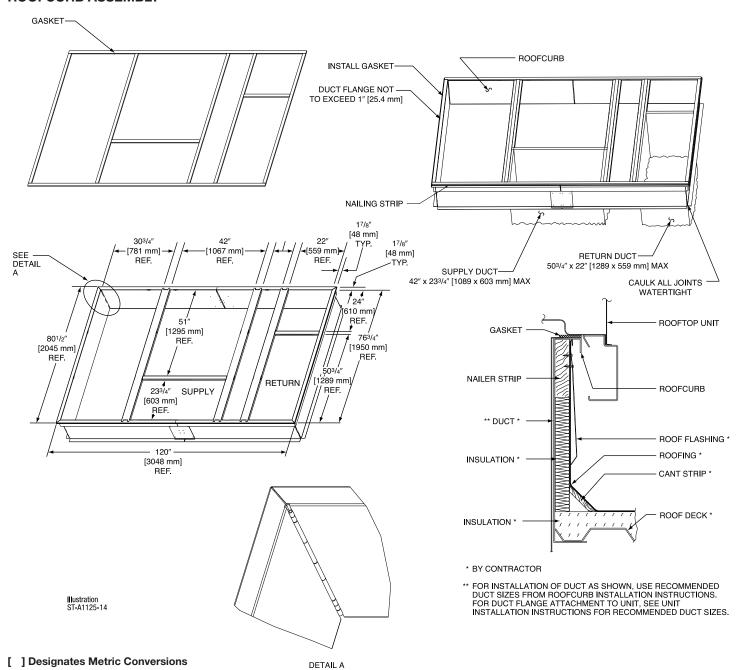
ROOFCURBS (Full Perimeter)

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

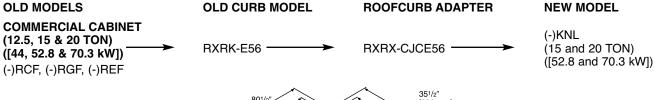
TYPICAL INSTALLATION

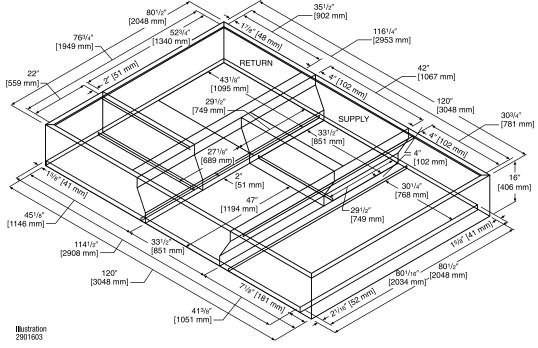


ROOFCURB ASSEMBLY

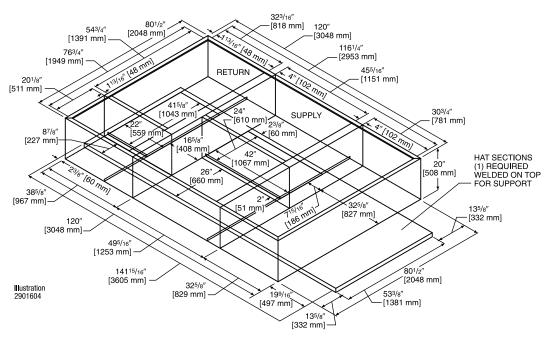


ROOFCURB ADAPTER



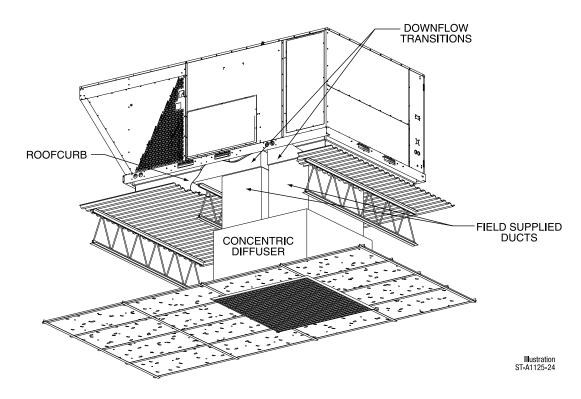








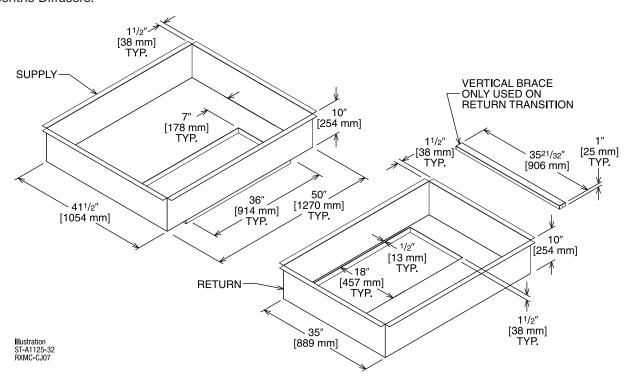
CONCENTRIC DIFFUSER APPLICATION



DOWNFLOW TRANSITION DRAWINGS

RXMC-CJ07 (15 Ton) [52.8 kW]

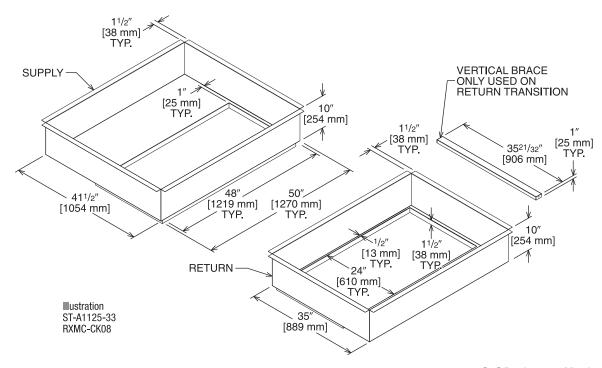
 Used with RXRN-AD80 and RXRN-AD81 Concentric Diffusers.



DOWNFLOW TRANSITION DRAWINGS (Cont.)

RXMC-CK08 (20 Ton) [70.3 kW]

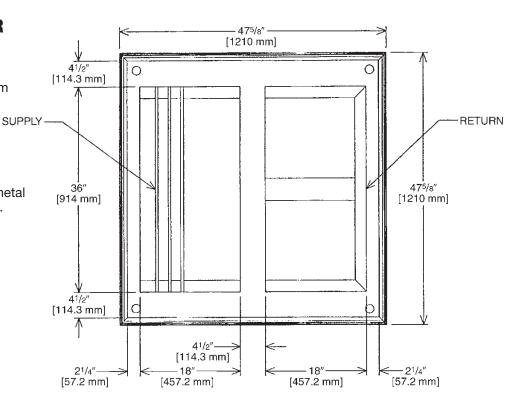
■ Used with RXRN-AD86 Concentric Diffusers.

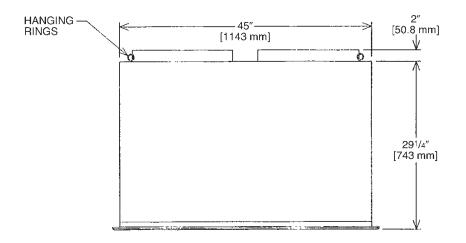


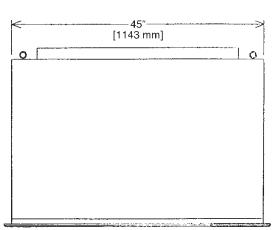
CONCENTRIC DIFFUSER RXRN-AD80 SERIES 15 TON [52.8 kW] FLUSH

 All aluminum diffuser with aluminum return air eggcrate.

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







CONCENTRIC DIFFUSER SPECIFICATIONS

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

CONCENTRIC DIFFUSER RXRN-AD81 SERIES 15 TON [52.8 kW] STEP DOWN

■ All aluminum diffuser with aluminum return air eggcrate.

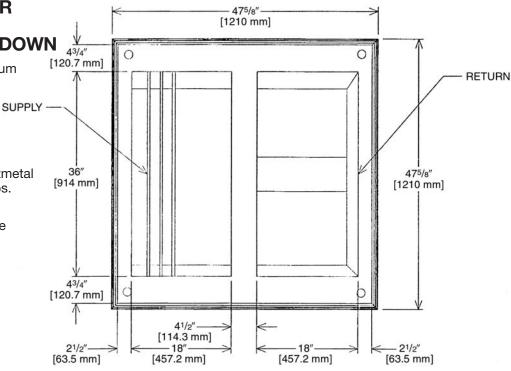
■ Built-in anti-sweat gasket.

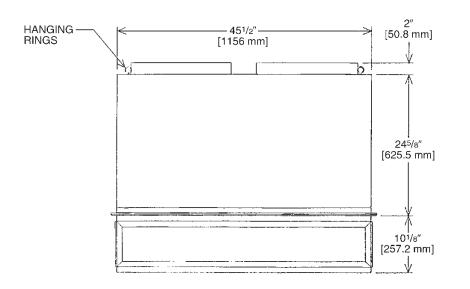
Molded fiberglass supports.

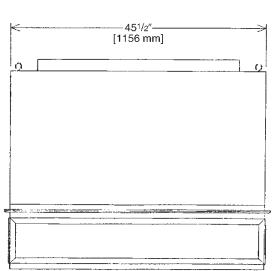
Built-in hanging supports.

 Diffuser box constructed of sheetmetal insulated with 1" [25.4 mm] 1.5 lbs. [.7 kg] duct liner.

■ Double deflection diffuser with the blades secured by spring steel.





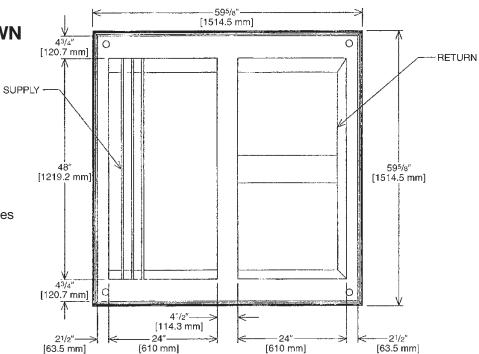


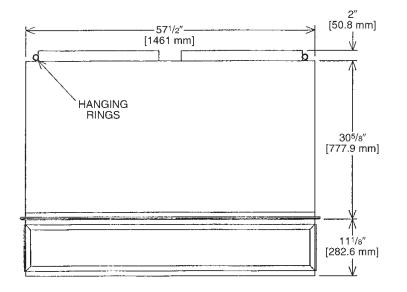
CONCENTRIC DIFFUSER SPECIFICATIONS

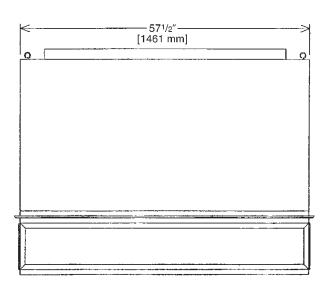
PART Number	CFM [L/s]	STATIC Pressure	THROW Feet	NECK Velocity	JET Velocity
	5600 [2643]	0.36	39-49	920	920
	5800 [2737]	0.39	42-51	954	954
RXRN-AD81	6000 [2832]	0.42	44-54	1022	1022
NAMIN-ADOI	6200 [2926]	0.46	45-55	1056	1056
	6400 [3020]	0.50	46-55	1090	1090
	6600 [3115]	0.54	47-56	1124	1124

CONCENTRIC DIFFUSER RXRN-AD86 SERIES 20 TON [70.3 kW] STEP DOWN

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







CONCENTRIC DIFFUSER SPECIFICATIONS

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

Guide Specifications RKNL-B180 thru B241

Note about this specification: Please feel free to copy this specification directly into your building spec. This specification is written to comply with the 2004 version of the "mask-format" as published by the Construction Specification Institute. www.csinet.org.

GAS HEAT PACKAGED ROOFTOP

HVAC Guide Specifications

Size Range: 15 to 25 Nominal Tons

Section Description

23 06 80 Schedules for Decentralized HVAC Equipment

23 06 80.13 Decentralized Unitary HVAC Equipment Schedule

23 06 80.13.A. Rooftop unit schedule

1. Schedule is per the project specification requirements.

23 07 16 HVAC Equipment Insulation

23 07 16.13 Decentralized, Rooftop Units:

- 1. Interior cabinet surfaces shall be insulated with a minimum 3/4-in. thick, minimum 1-1/2 lb density, flexible fiberglass insulation bonded with a phenolic binder, with aluminum foil facing on the air side.
- 2. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.

23 09 13 Instrumentation and Control Devices for HVAC

23 09 13.23 Sensors and Transmitters:

23 09 13.23.A. Thermostats

- 1. Thermostat must
 - a. energize "G" when calling for heat.
 - b. have capability to energize 2 different stages of cooling, and 2 different stages of heating.
 - c. must include capability for occupancy scheduling.

23 09 33 Electric and Electronic Control System for HVAC

23 09 33.13 Decentralized, Rooftop Units:

23 09 93.13.A. General:

- 1. Shall be complete with self-contained low-voltage control circuit protected by a resettable circuit breaker on the 24-v transformer side.
- 2. Shall utilize color-coded wiring.
- 3. The heat exchanger shall be controlled by an integrated furnace controller (IFC) microprocessor. See heat exchanger section of this specification.
- 4. Unit shall include a minimum of one 9-pin screw terminal connection board for connection of control wiring.

23 09 33.23.B. Safeties:

- 1. Compressor over-temperature, over current.
- 2. Low-pressure switch.
- 3. High-pressure switch.
- 4. Automatic reset, motor thermal overload protector.
- 5. Heating section shall be provided with the following minimum protections.
 - a. High-temperature limit switches.
 - b. Induced draft motor pressure switch.
 - c. Flame rollout switch.
 - d. Flame proving controls.

23 09 93 Sequence of Operations for HVAC Controls

23 09 93.13 Decentralized, Rooftop Units:

23 09 93.13 INSERT SEQUENCE OF OPERATION

23 40 13 Panel Air Filters

23 40 13.13 Decentralized, Rooftop Units:

23 40 13.13.A. Standard filter section shall

- 1. Shall consist of factory-installed, low velocity, throwaway 2-in. thick fiberglass filters of commercially available sizes.
- 2. Unit shall use only one filter size. Multiple sizes are not acceptable.
- 3. Filter face velocity shall not exceed 365 fpm at nominal airflows.
- 4. Filters shall be accessible through an access panel as described in the unit cabinet section of the specification (23 81 19.13.H).

23 81 19 Self-Contained Air Conditioners

23 81 19.13 Small-Capacity Self-Contained Air Conditioners

23 81 19.13.A. General

- 1. Outdoor, rooftop mounted, electrically controlled, heating and cooling unit utilizing a(n) hermetic scroll compressor(s) for cooling duty and gas combustion for heating duty.
- 2. Factory assembled, single-piece heating and cooling rooftop unit. Contained within the unit enclosure shall be all factory wiring, piping, controls, and special features required prior to field start-up.
- 3. Unit shall use environmentally safe, R-410A refrigerant.
- 4. Unit shall be installed in accordance with the manufacturer's instructions.
- 5. Unit must be selected and installed in compliance with local, state, and federal codes.

23 81 19.13.B. Quality Assurance

- 1. Unit meets ASHRAE 90.1-2004 minimum efficiency requirements.
- 2. 3 phase units are Energy Star qualified.
- 3. Unit shall be rated in accordance with AHRI Standards 210 and 360.
- 4. Unit shall be designed to conform to ASHRAE 15, 2001.
- 5. Unit shall be UL-tested and certified in accordance with ANSI Z21.47 Standards and UL-listed and certified under Canadian standards as a total package for safety requirements.
- 6. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.
- 7. Unit casing shall be capable of withstanding 500-hour salt spray exposure per ASTM B117 (scribed specimen).
- 8. Unit casing shall be capable of withstanding Federal Test Method Standard No. 141 (Method 6061) 5000-hour salt spray.
- 9. Unit shall be designed in accordance with ISO 9001:2000, and shall be manufactured in a facility registered by ISO 9001:2000.
- 10. Roof curb shall be designed to conform to NRCA Standards.
- 11. Unit shall be subjected to a completely automated run test on the assembly line. The data for each unit will be stored at the factory, and must be available upon request.
- 12. Unit shall be designed in accordance with UL Standard 1995, including tested to withstand rain.
- 13. Unit shall be constructed to prevent intrusion of snow and tested to prevent snow intrusion into the control box up to 40 mph.

23 81 19.13.C. Delivery, Storage, and Handling

- 1. Unit shall be stored and handled per manufacturer's recommendations.
- 2. Lifted by crane requires either shipping top panel or spreader bars.
- 3. Unit shall only be stored or positioned in the upright position.

23 81 19.13.E. Project Conditions

1. As specified in the contract.

23 81 19.13.F. Operating Characteristics

- 1. Unit shall be capable of starting and running at 115°F (46°C) ambient outdoor temperature, meeting maximum load criteria of AHRI Standard 210/240 or 360 at ± 10% voltage.
- 2. Compressor with standard controls shall be capable of operation down to 40°F (4°C), ambient outdoor temperatures. Accessory low ambient kit is necessary if mechanically cooling at ambient temperatures below 40°F (4°C).
- 3. Unit shall discharge supply air vertically or horizontally as shown on contract drawings.
- 4. Unit shall be factory configured for vertical supply & return configurations.
- 5. Unit shall be field convertible from vertical to horizontal configuration.

23 81 19.13.G. Electrical Requirements

1. Main power supply voltage, phase, and frequency must match those required by the manufacturer.

23 81 19.13.H. Unit Cabinet

- 1. Unit cabinet shall be constructed of galvanized steel, and shall be bonderized and coated with a baked enamel finish on all externally exposed surfaces.
- 2. Unit cabinet exterior paint shall be: film thickness, (dry) 0.003 inches minimum, gloss (per ASTM D523, 60°F / 16°C): 60, Hardness: H-2H Pencil hardness.
- 3. Evaporator fan compartment interior cabinet insulation shall conform to AHRI Standards 210 or 360 minimum exterior sweat criteria. Interior surfaces shall be insulated with a minimum 3/4-in. thick, 1 lb. density, flexible fiberglass insulation, aluminum foil-face coated on the air side.
- 4. Base of unit shall have locations for thru-the-base gas and electrical connections (factory installed or field installed), standard.
- 5 Base Rai
 - a. Unit shall have base rails on all sides.
 - b. Holes shall be provided in the base rails for rigging shackles to facilitate maneuvering and overhead rigging.

- c. Holes shall be provided in the base rail for moving the rooftop by fork truck.
- d. Base rail shall be a minimum of 14 gauge thickness.
- 6. Condensate pan and connections:
 - a. Shall be a sloped condensate drain pan made of a non-corrosive material.
 - b. Shall comply with ASHRAE Standard 62.
 - c. Shall use a 1" x 11-1/2 NPT drain connection through the side of the drain pan. Connection shall be made per manufacturer's recommendations.

7. Gas Connections:

- a. All gas piping connecting to unit gas valve shall enter the unit cabinet at a single location on side of unit (horizontal plane).
- b. Thru-the-base capability
 - i. Standard unit shall have a thru-the-base gas-line location using a raised, embossed portion of the unit basepan.
 - ii. No basepan penetration, other than those authorized by the manufacturer, is permitted.

8. Electrical Connections

- a. All unit power wiring shall enter unit cabinet at a single, factory-prepared, knockout location.
- b. Thru-the-base capability
 - i. Standard unit shall have a thru-the-base electrical location(s) using a raised, embossed portion of the unit basepan.
 - ii. No basepan penetration, other than those authorized by the manufacturer, is permitted.
- 9. Component access panels (standard)
 - a. Cabinet panels shall be easily removable for servicing.
 - b. Stainless steel metal hinges are standard on all doors.
 - c. Panels covering control box, indoor fan, indoor fan motor and gas components (where applicable), shall have 1/4 turn latches.

23 81 19.13.I. Gas Heat

1. General

- a. Heat exchanger shall be an induced draft design. Positive pressure heat exchanger designs shall not be allowed.
- b. Shall incorporate a direct-spark ignition system and redundant main gas valve.
- c. Heat exchanger design shall allow combustion process condensate to gravity drain; maintenance to drain the gas heat exchanger shall not be required.
- d. Gas supply pressure at the inlet to the rooftop unit gas valve must match that required by the manufacturer.
- 2. The heat exchanger shall be controlled by an integrated furnace controller (IFC) microprocessor.
 - a. IFC board shall notify users of fault using an LED (light-emitting diode).
- 3. Standard Heat Exchanger construction
 - a. Heat exchanger shall be of the tubular-section type constructed of a minimum of 20-gauge aluminum coated steel for corrosion resistance.
 - b. Burners shall be of the in-shot type constructed of aluminum-coated steel.
 - c. Burners shall incorporate orifices for rated heat output up to 2000 ft (610m) elevation. Additional accessory kits may be required for applications above 2000 ft (610m) elevation, depending on local gas supply conditions.
- 4. Optional Stainless Steel Heat Exchanger construction
 - a. Use energy saving, direct-spark ignition system.
 - b. Use a redundant main gas valve.
 - c. Burners shall be of the in-shot type constructed of aluminum-coated steel.
 - d. All gas piping shall enter the unit cabinet at a single location on side of unit (horizontal plane).
 - e. The optional stainless steel heat exchanger shall be of the tubular-section type, constructed of a minimum of 20-gauge type 409 stainless steel.
 - f. Type 409 stainless steel shall be used in heat exchanger tubes and vestibule plate.
 - g. Complete stainless steel heat exchanger allows for greater application flexibility.
- 5. Induced draft combustion motors and blowers
 - a. Shall be a direct-drive, single inlet, forward-curved centrifugal type.

- b. Shall be made from steel with a corrosion-resistant finish.
- c. Shall have permanently lubricated sealed bearings.
- d. Shall have inherent thermal overload protection.
- e. Shall have an automatic reset feature.

23 81 19.13.J. Coils

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

23 81 19.13.K. Refrigerant Components

- 1. Refrigerant circuit shall include the following control, safety, and maintenance features:
 - a. Thermal Expansion Valves (TXV) with orifice type distributor.
 - b. Refrigerant filter drier.
 - c. Service gauge connections on suction and discharge lines.
 - d. Pressure gauge access through an access port in the front and rear panel of the unit.

2. Compressors

- a. Unit shall use one fully hermetic, scroll compressor for each independent refrigeration circuit.
- b. Compressor motors shall be cooled by refrigerant gas passing through motor windings.
- c. Compressors shall be internally protected from high discharge temperature conditions. Advanced Scroll Temperature Protection on 240 sizes.
- d. Compressors shall be protected from an over-temperature and over-amperage conditions by an internal, motor overload device.
- e. Compressor shall be factory mounted on rubber grommets.
- f. Compressor motors shall have internal line break thermal and current overload protection.
- g. Crankcase heaters shall not be required for normal operating range.

23 81 19.13.L. Filter Section

- 1. Filters access is specified in the unit cabinet section of this specification.
- 2. Filters shall be held in place by filter tray, facilitating easy removal and installation.
- 3. Shall consist of factory-installed, low velocity, throw-away 2-in. thick fiberglass filters.
- 4. Filter face velocity shall not exceed 365 fpm at nominal airflows.
- 5. Filters shall be standard, commercially available sizes.
- 6. Only one size filter per unit is allowed.

23 81 19.13.M. Evaporator Fan and Motor

- 1. Evaporator fan motor:
 - a. Shall have permanently lubricated bearings.
 - b. Shall have inherent automatic-reset thermal overload protection.
 - Shall have a maximum continuous bhp rating for continuous duty operation; no safety factors above that rating shall be required.
- 2. Belt-driven Evaporator Fan:
 - a. Belt drive shall include an adjustable-pitch motor pulley.
 - b. Shall use sealed, permanently lubricated ball-bearing type.
 - c. Blower fan shall be double-inlet type with forward-curved blades.
 - d. Shall be constructed from steel with a corrosion resistant finish and dynamically balanced.

23 81 19.13.N. Condenser Fans and Motors

- 1. Condenser fan motors:
 - a. Shall be a totally enclosed motor.
 - b. Shall use permanently lubricated bearings.
 - c. Shall have inherent thermal overload protection with an automatic reset feature.
 - d. Shall use a shaft-down design. Shaft-up designs including those with "rain-slinger devices" shall not be allowed.
- 2. Condenser Fans shall:
 - a. Shall be a direct-driven propeller type fan
 - b. Shall have aluminum blades riveted to corrosion-resistant steel spiders and shall be dynamically balanced.

23 81 19.13.O. Special Features

- 1. Integrated Economizers:
 - a. Integrated, gear-driven parallel modulating blade design type capable of simultaneous economizer and compressor operation.
 - b. Independent modules for vertical or horizontal return configurations shall be available. Vertical return modules shall be available as a factory installed option.
 - c. Damper blades shall be galvanized steel with metal gears. Plastic or composite blades on intake or return shall not be acceptable.
 - d. Shall include all hardware and controls to provide free cooling with outdoor air when temperature and/or humidity are below setpoints.
 - e. Shall be equipped with gear driven dampers for both the outdoor ventilation air and the return air for positive air stream control.
 - f. Shall be capable of introducing up to 100% outdoor air.
 - g. Shall be equipped with a barometric relief damper capable of relieving up to 100% return air. The barometric relief damper shall include seals, hardware and hoods to relieve building pressure. Damper shall gravity close upon unit shut down.
 - h. Shall be designed to close damper(s) during loss-of-power situations with spring return built into motor.
 - i. An outdoor single-enthalpy sensor shall be provided as standard. Outdoor air enthalpy set point shall be adjustable and shall range from the enthalpy equivalent of 63°F @ 50% rh to 73°F @ 50% rh. Additional sensor options shall be available as accessories.
 - j. The economizer controller shall also provide control of an accessory power exhaust unit function. Factory set at 70%, with a range of 0% to 100%.
 - k. The economizer shall maintain minimum airflow into the building during occupied period and provide design ventilation rate for full occupancy. A remote potentiometer may be used to override the damper set point.
 - I. Economizer controller shall accept a 2-10Vdc CO2 sensor input for IAQ/DCV control. In this mode, dampers shall modulate the outdoor-air damper to provide ventilation based on the sensor input.
 - m. Actuator shall be direct coupled to economizer gear. No linkage arms or control rods shall be acceptable.
 - n. Economizer controller shall provide indications when in free cooling mode, in the DCV mode, or the exhaust fan contact is closed.

2. Two-Position Damper

- a. Damper shall be a Two-Position Damper. Damper travel shall be from the full closed position to the field adjustable %-open setpoint.
- b. Damper shall include adjustable damper travel from 25% to 100% (full open).
- c. Damper shall include single or dual blade, gear driven damper and actuator motor.
- d. Actuator shall be direct coupled to economizer gear. No linkage arms or control rods shall be acceptable.
- e. Damper will admit up to 100% outdoor air for applicable rooftop units.
- f. Damper shall close upon indoor (evaporator) fan shutoff and/or loss of power.
- g. The damper actuator shall plug into the rooftop unit's wiring harness plug. No hard wiring shall be required.
- h. Outside air hood shall include aluminum water entrainment filter.
- 3. Manual damper
 - Manual damper package shall consist of damper, air inlet screen, and rain hood which can be preset to admit up to 50% outdoor air for year round ventilation.
- 4. Head Pressure Control Package
 - a. Controller shall control coil head pressure by condenser-fan cycling.
- 5. Liquid Propane (LP) Conversion Kit
 - a. Package shall contain all the necessary hardware and instructions to convert a standard natural gas unit for use with liquefied propane, up to 2000 ft (610m) elevation.
- 6. Unit-Mounted, Non-Fused Disconnect Switch:
 - a. Switch shall be factory-installed, internally mounted.
 - b. National Electric Code (NEC) and UL approved non-fused switch shall provide unit power shutoff.
 - c. Shall be accessible from outside the unit.
 - d. Shall provide local shutdown and lockout capability.

- e. Non-Powered convenience outlet.
- f. Outlet shall be powered from a separate 115-120v power source.
- g. A transformer shall not be included.
- h. Outlet shall be field-installed and internally mounted with easily accessible 115-v female receptacle.
- i. Outlet shall include 15 amp GFI receptacle.
- j. Outlet shall be accessible from outside the unit.

7. Flue Discharge Deflector:

- a. Flue discharge deflector shall direct unit exhaust vertically instead of horizontally.
- b. Deflector shall be defined as a "natural draft" device by the National Fuel and Gas (NFG) code.
- 8. Thru-the-Base Connectors:
 - a. Kits shall provide connectors to permit gas and electrical connections to be brought to the unit through the unit basepan.
- 9. Propeller Power Exhaust:
 - a. Power exhaust shall be used in conjunction with an integrated economizer.
 - b. Independent modules for vertical or horizontal return configurations shall be available.
 - c. Horizontal power exhaust is shall be mounted in return ductwork.
 - d. Power exhaust shall be controlled by economizer controller operation. Exhaust fans shall be energized when dampers open past the 0-100% adjustable setpoint on the economizer control.

10. Roof Curbs (Vertical):

- a. Full perimeter roof curb with exhaust capability providing separate airstreams for energy recovery from the exhaust air without supply air contamination.
- b. Formed galvanized steel with wood nailer strip and shall be capable of supporting entire unit weight.
- c. Permits installation and securing of ductwork to curb prior to mounting unit on the curb.

11. Universal Gas Conversion Kit:

a. Package shall contain all the necessary hardware and instructions to convert a standard natural gas unit to operate from 2000-7000 ft (610 to 2134m) elevation with natural gas or from 0-7000 ft (90-2134m) elevation with liquefied propane.

12. Outdoor Air Enthalpy Sensor:

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

13. Return Air Enthalpy Sensor:

a. The return air enthalpy sensor shall be used in conjunction with an outdoor air enthalpy sensor to provide differential enthalpy control.

14. Indoor Air Quality (CO2) Sensor:

- a. Shall be able to provide demand ventilation indoor air quality (IAQ) control.
- b. The IAQ sensor shall be available in wall mount with LED display. The set point shall have adjustment capability.

15. Smoke detectors:

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





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

GENERAL TERMS OF LIMITED WARRANTY*

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

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

Compressor
3 Phase, Commercial ApplicationsFive (5) Years
Parts
3 Phase, Commercial ApplicationsOne (1) Year
Factory Standard Heat Exchanger
3 Phase, Commercial ApplicationsTen (10) Years
Stainless Steel Heat Exchanger
3 Phase, Commercial ApplicationsTwenty (20) Years



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

