



Package Gas Electric  
RKKN-B Series

## Ruud Commercial Value Series Package Gas Electric Unit



### RKKN-B Standard Efficiency Series

Nominal Sizes 6 Ton [21.1 kW]  
ASHRAE 90.1-2010 Compliant Models



*"Proper sizing and installation of equipment is critical to achieve optimal performance. Ask your Contractor for details or visit [www.energystar.gov](http://www.energystar.gov)."*

RELY ON RUUD.™

FORM NO. R22-868 REV. 1

# TABLE OF CONTENTS

Unit Features & Benefits .....	3-4
Model Number Identification .....	5
Selection Procedure .....	6
Options .....	7
General Data	
RKKN-B Series .....	8-10
General Data Notes .....	11
Gross Systems Performance Data	
RKKN-B Series .....	12
Indoor Airflow Performance	
RKKN-B Series .....	13
Electrical Data	
RKKN-B Series .....	14
Dimensional Data .....	15-17
Accessories .....	18-25
Mechanical Specifications .....	26
Wiring Diagrams .....	27-29
Limited Warranty .....	30



RKKN - B072

## 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.
- Single stage compressor on all models.
- Convertible airflow.
- TXV refrigerant metering system.
- High Pressure and Low Pressure/Loss of charge protection standard on all models.
- Solid Core liquid line filter drier.
- Single slab evaporator coil facilitate easy cleaning for maintained high efficiencies.
- Cooling operation up to 125 degree F ambient.
- Easily removable filter, blower, gas heat, and compressor/control access panels permits prompt service.
- One piece top cover and one piece base pan with drawn supply and return opening for superior water management.
- Externally mounted refrigerant gauge ports for easy service diagnostics.
- Easy to install plug-in; slip in, 100% fully modulating economizer.
- 82% of steady state efficiency
- Forkable base rails for easy handling and lifting.
- Single point electrical and gas connections.
- High performance belt drive motor with variable pitch pulleys and quick adjust belt system.
- Permanently lubricated evaporator, condenser and gas heat inducer motors.
- Condenser motor is internally protected, totally enclosed with shaft down design.
- 2 inch filter standard with slide out design.
- Single 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.
- Colored and labeled wiring.
- Micro Channel coils.
- Molded compressor plug.
- Micro Channel evaporators and condenser delivers superior performance with less refrigerant charge and less weight than conventional copper tube/aluminum fin coils. In addition the aluminum design has superior formicary corrosion protection and less potential for leaks due to elimination of tube rubbing potential. Its easier to clean and has a more robust surface.

**Unit Features & Benefits**  
**RKKN-B Series**

**Evaporator Coil/Filter Access**

- Return air filters, normally provided, are removed in this photo.

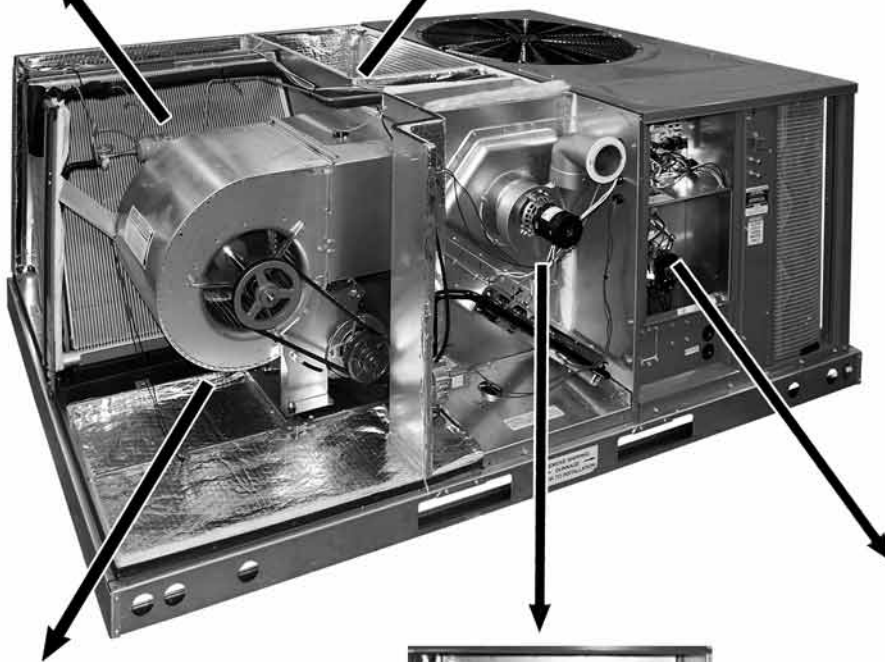


- Non-corrosive plastic condensate pan



**Tubular Heat Exchanger**

- Aluminized steel (viewed from supply air side panel.)
- Stainless steel available



**Blower Access**



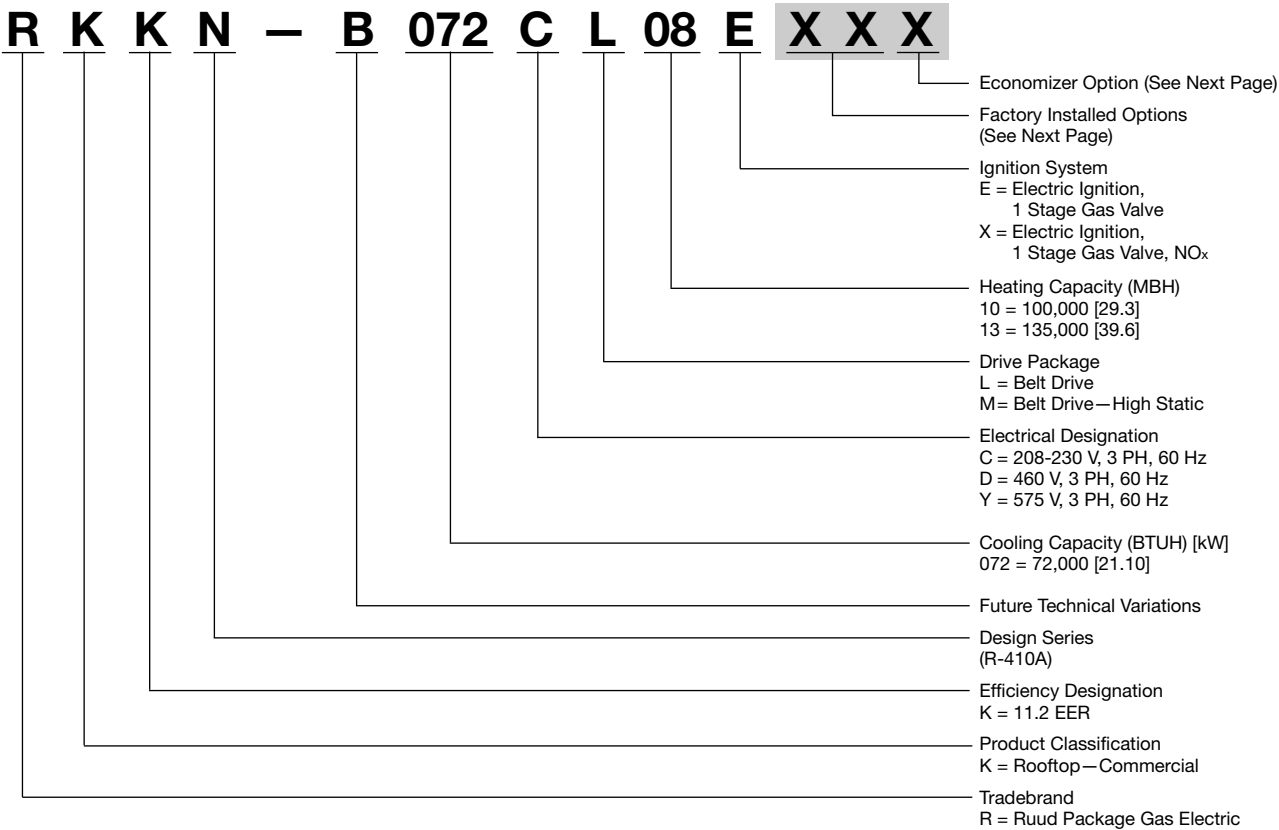
**Heating Compartment Access**



**Compressor Access**

- Belt drive model shown. (Available on 3-phase models only.)

[ ] Designates Metric Conversions



[ ] Designates Metric Conversions

**1. Determine cooling and heating requirements at design conditions.**

Example:

Power Supply .....	208/230-3 Phase
Total cooling capacity .....	62,000 BTUH [18.17 kW]
Sensible cooling capacity .....	54,000 BTUH [15.82 kW]
Heating capacity .....	96,000 BTUH [28.13 kW]
Condenser entering air .....	95°F [35°C]
Evaporator entering air .....	63°F [17°C] wb/76°F [24°C] db
Indoor air flow .....	2255 CFM [1064 L/s]
External static pressure .....	1.1 in wg
Required efficiency .....	11.2 EER

**2. Select unit to meet cooling requirements.**

Since total cooling is within the range of 6 ton [21.10 kW] unit and requires 11.2 EER efficiency level, enter cooling performance from the RKKN-B072 at 95°F [35°C] outdoor temperature, 63°F [17°C] wb entering indoor air, and 2460 CFM [1161 L/s]:

Total capacity .....	67,200 BTUH [19.70 kW]
Sensible capacity .....	59,300 BTUH [17.40 kW]
Power input .....	5.5 kW

And also, at 76°F [24°C] db indoor entering air, and using the formula at the bottom of the table:

Sensible capacity .....	50,208 BTUH [14.71 kW]
-------------------------	------------------------

**3. Select heating capacity of the unit.**

In the general data tables, note that the heating capacity of the 6 ton [21.10 kW] model with the 135,000 input heater can deliver 109,400 BTUH [32.03 kW], which is suitable for this application.

**4. Determine blower speed and power to meet the system requirements.**

At the given external static pressure of 1.1 in wg, the belt model must be selected. Enter the belt drive blower performance data at 2460 CFM [1161 L/s] and 1.1 in wg ESP:

RPM .....	1153
Watts .....	1205
Drive .....	M

**5. Calculate indoor blower BTUH heat effect.**

$$\text{BTUH} = \text{Watts} \times 3.413 = 4113$$

**6. Calculate net cooling capacities.**

$$\begin{aligned} \text{Net total cooling} &= 67,200 - 4113 = 63,087 \text{ BTUH [18.49 kW]} \\ \text{Net sensible cooling} &= 59,300 - 4113 = 55,187 \text{ BTUH [16.17 kW]} \end{aligned}$$

**7. Select model**

RKKN-B072CM13E

[ ] Designates Metric Conversions

**FACTORY INSTALLED OPTION CODES FOR RKKN-B (6 TON) [21.1 kW] (B072)**

Option Code	Hail Guard	Stainless Steel Heat Exchanger	Non-Powered Convenience Outlet/Unfused Service Disconnect	Low Ambient/Freeze Stat
AD	x			
AJ		x		
AH			x	
AP				x
BF	x		x	
BG	x	x		
BY	x			x
JB		x	x	
CR	x	x		x
DN	x	x	x	x

**Economizer Codes**

A = No Economizer

B = Economizer with Single Enthalpy

Example: RKKN-B072CL13E**XX** (where **XX** is factory installed option)

Example: No Options

RKKN-B072CL13E

Example: No option with factory installed economizer

RKKN-B072CL13EAAB

Example: Options with stainless steel heat exchanger and no factory installed economizer

RKKN-B072CL13EAJA

Example: Options same as above with factory installed economizer

RKKN-B072CL13EAJB

**ECONOMIZER SELECTION FOR RKKN-B (6 TON) [21.1 kW]**

	No Economizer	Single Enthalpy Economizer with Barometric Relief	Single Enthalpy Economizer with Smoke Detector
A	x		
F		x	
G			x

"x" indicates factory installed option.

[ ] Designates Metric Conversions

## NOM. SIZES 6 TONS [21.1 kW]

Model RKKK- Series	B072CL10E	B072CL13E	B072CM10E	B072CM13E
<b>Cooling Performance<sup>1</sup></b>				<b>CONTINUED</b> →
Gross Cooling Capacity Btu [kW]	71,000 [20.8]	71,000 [20.8]	71,000 [20.8]	71,000 [20.8]
EER/SEER <sup>2</sup>	11.2/NA	11.2/NA	11.2/NA	11.2/NA
Nominal CFM/AHRI Rated CFM [L/s]	2400/2050 [1133/967]	2400/2050 [1133/967]	2400/2050 [1133/967]	2400/2050 [1133/967]
AHRI Net Cooling Capacity Btu [kW]	69,000 [20.22]	69,000 [20.22]	69,000 [20.22]	69,000 [20.22]
Net Sensible Capacity Btu [kW]	47,300 [13.86]	47,300 [13.86]	47,300 [13.86]	47,300 [13.86]
Net Latent Capacity Btu [kW]	21,700 [6.36]	21,700 [6.36]	21,700 [6.36]	21,700 [6.36]
IEER <sup>3</sup>	12.5	12.5	12.5	12.5
Net System Power kW	6.19	6.19	6.19	6.19
<b>Heating Performance (Gas)<sup>4</sup></b>				
Heating Input Btu [kW]	100,000 [29.3]	135,000 [39.55]	100,000 [29.3]	135,000 [39.55]
Heating Output Btu [kW]	82,000 [24.03]	110,700 [32.43]	82,000 [24.03]	110,700 [32.43]
Temperature Rise Range °F [°C]	20-50 [11.1-27.8]	30-60 [16.7-33.3]	20-50 [11.1-27.8]	30-60 [16.7-33.3]
Steady State Efficiency (%)	82	82	82	82
No. Burners	5	6	5	6
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
<b>Compressor</b>				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
<b>Outdoor Sound Rating (dB)<sup>5</sup></b>				
	83	83	83	83
<b>Outdoor Coil—Fin Type</b>				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	0.7 [17.8]	0.7 [17.8]	0.7 [17.8]	0.7 [17.8]
Rows / FPI [FPcm]	16.4 [1.52]	16.4 [1.52]	16.4 [1.52]	16.4 [1.52]
	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
<b>Indoor Coil—Fin Type</b>				
Tube Type	Corrugated	Louvered	Louvered	Louvered
Tube Size in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	1.3 [33]	1.3 [33]	1.3 [33]	1.3 [33]
Rows / FPI [FPcm]	6.2 [0.58]	6.2 [0.58]	6.2 [0.58]	6.2 [0.58]
	1 / 20 [8]	1 / 20 [8]	1 / 22 [9]	1 / 22 [9]
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]
<b>Outdoor Fan—Type</b>				
No. Used/Diameter in. [mm]	Propeller	Propeller	Propeller	Propeller
Drive Type/No. Speeds	1/24 [609.6]	1/24 [609.6]	1/24 [609.6]	1/24 [609.6]
CFM [L/s]	Direct/1	Direct/1	Direct/1	Direct/1
No. Motors/HP	4000 [1888]	4000 [1888]	4000 [1888]	4000 [1888]
Motor RPM	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
	1075	1075	1075	1075
<b>Indoor Fan—Type</b>				
No. Used/Diameter in. [mm]	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Drive Type	1/11x10 [279x254]	1/11x10 [279x254]	1/11x10 [279x254]	1/11x10 [279x254]
No. Speeds	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)
No. Motors	Single	Single	Single	Single
Motor HP	1	1	1	1
Motor RPM	1 1/2	1 1/2	1 1/2	1 1/2
Motor Frame Size	1725	1725	1725	1725
	56	56	56	56
<b>Filter—Type</b>				
Furnished	Disposable	Disposable	Disposable	Disposable
(NO.) Size Recommended in. [mm x mm x mm]	Yes	Yes	Yes	Yes
	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]
<b>Refrigerant Charge Oz. [g]</b>				
	70 [1984]	70 [1984]	70 [1984]	70 [1984]
<b>Weights</b>				
Net Weight lbs. [kg]	663 [301]	668 [303]	668 [303]	673 [305]
Ship Weight lbs. [kg]	670 [304]	675 [306]	675 [306]	680 [308]

See Page 11 for Notes.

[ ] Designates Metric Conversions



## NOM. SIZES 6 TONS [21.1 kW]

Model RKKN- Series	B072DL10E	B072DL13E	B072DM10E	B072DM13E
<b>Cooling Performance<sup>1</sup></b>				<b>CONTINUED</b> →
Gross Cooling Capacity Btu [kW]	71,000 [20.8]	71,000 [20.8]	71,000 [20.8]	71,000 [20.8]
EER/SEER <sup>2</sup>	11.2/NA	11.2/NA	11.2/NA	11.2/NA
Nominal CFM/AHRI Rated CFM [L/s]	2400/2050 [1133/967]	2400/2050 [1133/967]	2400/2050 [1133/967]	2400/2050 [1133/967]
AHRI Net Cooling Capacity Btu [kW]	69,000 [20.22]	69,000 [20.22]	69,000 [20.22]	69,000 [20.22]
Net Sensible Capacity Btu [kW]	47,300 [13.86]	47,300 [13.86]	47,300 [13.86]	47,300 [13.86]
Net Latent Capacity Btu [kW]	21,700 [6.36]	21,700 [6.36]	21,700 [6.36]	21,700 [6.36]
IEER <sup>3</sup>	12.5	12.5	12.5	12.5
Net System Power kW	6.19	6.19	6.19	6.19
<b>Heating Performance (Gas)<sup>4</sup></b>				
Heating Input Btu [kW]	100,000 [29.3]	135,000 [39.55]	100,000 [29.3]	135,000 [39.55]
Heating Output Btu [kW]	82,000 [24.03]	110,700 [32.43]	82,000 [24.03]	110,700 [32.43]
Temperature Rise Range °F [°C]	20-50 [11.1-27.8]	30-60 [16.7-33.3]	20-50 [11.1-27.8]	30-60 [16.7-33.3]
Steady State Efficiency (%)	82	82	82	82
No. Burners	5	6	5	6
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
<b>Compressor</b>				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
<b>Outdoor Sound Rating (dB)<sup>5</sup></b>	83	83	83	83
<b>Outdoor Coil—Fin Type</b>	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.7 [17.8]	0.7 [17.8]	0.7 [17.8]	0.7 [17.8]
Face Area sq. ft. [sq. m]	16.4 [1.52]	16.4 [1.52]	16.4 [1.52]	16.4 [1.52]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
<b>Indoor Coil—Fin Type</b>	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1.3 [33]	1.3 [33]	1.3 [33]	1.3 [33]
Face Area sq. ft. [sq. m]	6.2 [0.58]	6.2 [0.58]	6.2 [0.58]	6.2 [0.58]
Rows / FPI [FPcm]	1 / 22 [9]	1 / 22 [9]	1 / 22 [9]	1 / 22 [9]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]	1/1 [25.4]
<b>Outdoor Fan—Type</b>	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/24 [609.6]	1/24 [609.6]	1/24 [609.6]	1/24 [609.6]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	4000 [1888]	4000 [1888]	4000 [1888]	4000 [1888]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
<b>Indoor Fan—Type</b>	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/11x10 [279x254]	1/11x10 [279x254]	1/11x10 [279x254]	1/11x10 [279x254]
Drive Type	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)	Belt (Adjustable)
No. Speeds	Single	Single	Single	Single
No. Motors	1	1	1	1
Motor HP	1 1/2	1 1/2	1 1/2	1 1/2
Motor RPM	1725	1725	1725	1725
Motor Frame Size	56	56	56	56
<b>Filter—Type</b>	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]
<b>Refrigerant Charge Oz. [g]</b>	70 [1984]	70 [1984]	70 [1984]	70 [1984]
<b>Weights</b>				
Net Weight lbs. [kg]	663 [301]	668 [303]	668 [303]	673 [305]
Ship Weight lbs. [kg]	670 [304]	675 [306]	675 [306]	680 [308]

See Page 11 for Notes.

[ ] Designates Metric Conversions

## NOM. SIZES 6 TONS [21.1 kW]

Model RKKK- Series	B072YL13E	B072YM13E
<b>Cooling Performance<sup>1</sup></b>		
Gross Cooling Capacity Btu [kW]	71,000 [20.8]	71,000 [20.8]
EER/SEER <sup>2</sup>	11.2/NA	11.2/NA
Nominal CFM/AHRI Rated CFM [L/s]	2400/2050 [1133/967]	2400/2050 [1133/967]
AHRI Net Cooling Capacity Btu [kW]	69,000 [20.22]	69,000 [20.22]
Net Sensible Capacity Btu [kW]	47,300 [13.86]	47,300 [13.86]
Net Latent Capacity Btu [kW]	21,700 [6.36]	21,700 [6.36]
IEER <sup>3</sup>	12.5	12.5
Net System Power kW	6.19	6.19
<b>Heating Performance (Gas)<sup>4</sup></b>		
Heating Input Btu [kW]	135,000 [39.55]	135,000 [39.55]
Heating Output Btu [kW]	110,700 [32.43]	110,700 [32.43]
Temperature Rise Range °F [°C]	30-60 [16.7-33.3]	30-60 [16.7-33.3]
Steady State Efficiency (%)	82	82
No. Burners	6	6
No. Stages	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]
<b>Compressor</b>		
No./Type	1/Scroll	1/Scroll
<b>Outdoor Sound Rating (dB)<sup>5</sup></b>		
	83	83
<b>Outdoor Coil—Fin Type</b>		
Tube Type	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	0.7 [17.8]	0.7 [17.8]
Rows / FPI [FPcm]	16.4 [1.52]	16.4 [1.52]
	1 / 23 [9]	1 / 23 [9]
<b>Indoor Coil—Fin Type</b>		
Tube Type	Louvered	Louvered
Tube Size in. [mm]	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	1.3 [33]	1.3 [33]
Rows / FPI [FPcm]	6.2 [0.58]	6.2 [0.58]
Refrigerant Control	1 / 22 [9]	1 / 22 [9]
Drain Connection No./Size in. [mm]	TX Valves	TX Valves
	1/1 [25.4]	1/1 [25.4]
<b>Outdoor Fan—Type</b>		
No. Used/Diameter in. [mm]	Propeller	Propeller
Drive Type/No. Speeds	1/24 [609.6]	1/24 [609.6]
CFM [L/s]	Direct/1	Direct/1
No. Motors/HP	4000 [1888]	4000 [1888]
Motor RPM	1 at 1/3 HP	1 at 1/3 HP
	1075	1075
<b>Indoor Fan—Type</b>		
No. Used/Diameter in. [mm]	FC Centrifugal	FC Centrifugal
Drive Type	1/11x10 [279x254]	1/11x10 [279x254]
No. Speeds	Belt (Adjustable)	Belt (Adjustable)
No. Motors	Single	Single
Motor HP	1	1
Motor RPM	1 1/2	1 1/2
Motor Frame Size	1725	1725
	56	56
<b>Filter—Type</b>		
Furnished	Disposable	Disposable
(NO.) Size Recommended in. [mm x mm x mm]	Yes	Yes
	(4)2x16x16 [51x406x406]	(4)2x16x16 [51x406x406]
<b>Refrigerant Charge Oz. [g]</b>		
	70 [1984]	70 [1984]
<b>Weights</b>		
Net Weight lbs. [kg]	668 [303]	673 [305]
Ship Weight lbs. [kg]	675 [306]	680 [308]

See Page 11 for Notes.

[ ] Designates Metric Conversions

## 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  $\pm 20\%$  of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 340/360.
2. EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.
3. IEER is rated in accordance with AHRI Standard 340/360.
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—RKKK-B072

ENTERING INDOOR AIR @ 80°F [26.7°C] dbE ①											
wbE		71°F [21.7°C]			67°F [19.4°C]			63°F [17.2°C]			
CFM [L/s]		2255 [1064]	2050 [967]	1742 [822]	2255 [1064]	2050 [967]	1742 [822]	2255 [1064]	2050 [967]	1742 [822]	
DR ①		0.16	0.15	0.13	0.16	0.15	0.13	0.16	0.15	0.13	
OUTDOOR DRY BULB TEMPERATURE °F [°C]	75 [23.9]	Total BTUH [kW] Sens BTUH [kW] Power	85.0 [24.9] 46.1 [13.5] 4.5	83.4 [24.4] 44.1 [12.9] 4.5	81.2 [23.8] 41.0 [12.0] 4.4	80.1 [23.5] 54.7 [16.0] 4.5	78.7 [23.0] 52.2 [15.3] 4.4	76.5 [22.4] 48.6 [14.2] 4.4	74.8 [21.9] 62.1 [18.2] 4.4	73.4 [21.5] 59.4 [17.4] 4.3	71.4 [20.9] 55.2 [16.2] 4.3
	80 [26.7]	Total BTUH [kW] Sens BTUH [kW] Power	83.4 [24.4] 45.7 [13.4] 4.8	81.9 [24.0] 43.7 [12.8] 4.7	79.6 [23.3] 40.6 [11.9] 4.7	78.5 [23.0] 54.3 [15.9] 4.7	77.1 [22.6] 51.9 [15.2] 4.7	75.0 [22.0] 48.2 [14.1] 4.6	73.2 [21.4] 61.8 [18.1] 4.6	71.9 [21.1] 59.0 [17.3] 4.6	69.9 [20.5] 54.9 [16.1] 4.5
	85 [29.4]	Total BTUH [kW] Sens BTUH [kW] Power	81.6 [23.9] 45.1 [13.2] 5.1	80.1 [23.5] 43.1 [12.6] 5.0	77.9 [22.8] 40.1 [11.8] 4.9	76.7 [22.5] 53.7 [15.7] 5.0	75.3 [22.1] 51.3 [15.0] 4.9	73.3 [21.5] 47.7 [14.0] 4.9	71.4 [20.9] 61.2 [17.9] 4.9	70.1 [20.5] 58.4 [17.1] 4.8	68.2 [20.0] 54.3 [15.9] 4.8
	90 [32.2]	Total BTUH [kW] Sens BTUH [kW] Power	79.6 [23.3] 44.3 [13.0] 5.3	78.2 [22.9] 42.4 [12.4] 5.3	76.0 [22.3] 39.4 [11.5] 5.2	74.7 [21.9] 52.9 [15.5] 5.3	73.4 [21.5] 50.5 [14.8] 5.2	71.4 [20.9] 47.0 [13.8] 5.1	69.4 [20.3] 60.4 [17.7] 5.2	68.2 [20.0] 57.7 [16.9] 5.1	66.3 [19.4] 53.6 [15.7] 5.1
	95 [35]	Total BTUH [kW] Sens BTUH [kW] Power	77.4 [22.7] 43.3 [12.7] 5.7	76.0 [22.3] 41.4 [12.1] 5.6	74.0 [21.7] 38.5 [11.3] 5.5	72.5 [21.3] 51.9 [15.2] 5.6	71.3 [20.9] 49.6 [14.5] 5.5	69.3 [20.3] 46.1 [13.5] 5.5	67.2 [19.7] 59.3 [17.4] 5.5	66.0 [19.3] 56.7 [16.6] 5.4	64.2 [18.8] 52.7 [15.4] 5.4
	100 [37.8]	Total BTUH [kW] Sens BTUH [kW] Power	75.0 [22.0] 42.1 [12.3] 6.0	73.7 [21.6] 40.2 [11.8] 6.0	71.7 [21.0] 37.4 [11.0] 5.9	70.2 [20.6] 50.6 [14.8] 5.9	68.9 [20.2] 48.4 [14.2] 5.9	67.0 [19.6] 45.0 [13.2] 5.8	64.8 [19.0] 58.1 [17.0] 5.8	63.7 [18.7] 55.5 [16.3] 5.8	61.9 [18.1] 51.6 [15.1] 5.7
	105 [40.6]	Total BTUH [kW] Sens BTUH [kW] Power	72.4 [21.2] 40.7 [11.9] 6.4	71.1 [20.8] 38.9 [11.4] 6.3	69.2 [20.3] 36.1 [10.6] 6.2	67.6 [19.8] 49.2 [14.4] 6.3	66.4 [19.4] 47.0 [13.8] 6.2	64.6 [18.9] 43.7 [12.8] 6.2	62.2 [18.2] 56.7 [16.6] 6.2	61.1 [17.9] 54.2 [15.9] 6.2	59.5 [17.4] 50.4 [14.8] 6.1
	110 [43.3]	Total BTUH [kW] Sens BTUH [kW] Power	69.7 [20.4] 39.0 [11.4] 6.8	68.4 [20.0] 37.3 [10.9] 6.7	66.5 [19.5] 34.7 [10.2] 6.6	64.8 [19.0] 47.6 [13.9] 6.7	63.6 [18.6] 45.5 [13.3] 6.6	61.9 [18.1] 42.3 [12.4] 6.5	59.5 [17.4] 55.1 [16.1] 6.6	58.4 [17.1] 52.6 [15.4] 6.5	56.8 [16.6] 48.9 [14.3] 6.5
	115 [46.1]	Total BTUH [kW] Sens BTUH [kW] Power	66.7 [19.5] 37.2 [10.9] 7.2	65.5 [19.2] 35.6 [10.4] 7.1	63.7 [18.7] 33.1 [9.7] 7.0	61.8 [18.1] 45.8 [13.4] 7.1	60.7 [17.8] 43.7 [12.8] 7.0	59.0 [17.3] 40.6 [11.9] 6.9	56.5 [16.5] 53.2 [15.6] 7.0	55.5 [16.3] 50.9 [14.9] 7.0	54.0 [15.8] 47.3 [13.9] 6.9
	120 [48.9]	Total BTUH [kW] Sens BTUH [kW] Power	63.5 [18.6] 35.2 [10.3] 7.6	62.3 [18.3] 33.6 [9.8] 7.6	60.6 [17.8] 31.2 [9.2] 7.5	58.6 [17.2] 43.7 [12.8] 7.5	57.6 [16.9] 41.8 [12.2] 7.5	56.0 [16.4] 38.8 [11.4] 7.4	53.3 [15.6] 51.2 [15.0] 7.5	52.3 [15.3] 48.9 [14.3] 7.4	50.9 [14.9] 45.5 [13.3] 7.3
	125 [51.7]	Total BTUH [kW] Sens BTUH [kW] Power	60.1 [17.6] 32.9 [9.6] 8.1	59.0 [17.3] 31.4 [9.2] 8.0	57.4 [16.8] 29.2 [8.6] 7.9	55.2 [16.2] 41.5 [12.1] 8.0	54.2 [15.9] 39.6 [11.6] 7.9	52.8 [15.5] 36.8 [10.8] 7.8	49.9 [14.6] 48.9 [14.3] 7.9	49.0 [14.4] 46.7 [13.7] 7.9	47.7 [14.0] 43.5 [12.7] 7.8

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)].

[ ] Designates Metric Conversions

# AIRFLOW PERFORMANCE—6 TON [21.10 kW] THREE PHASE BELT DRIVE

Air Flow CFM [L/s]	Capacity 6 Ton [21.10 kW]		External Static Pressure—Inches of Water [kPa]																													
	Voltage 208/230-460 & 575—3 Phase		0.1 [.02]		0.2 [.05]		0.3 [.07]		0.4 [.10]		0.5 [.12]		0.6 [.15]		0.7 [.17]		0.8 [.20]		0.9 [.22]		1.0 [.25]		1.1 [.27]		1.2 [.30]		1.3 [.32]		1.4 [.35]		1.5 [.37]	
	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W	RPM	W		
1800 [850]	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
1900 [897]	—	—	—	—	785	580	830	615	875	660	915	700	955	740	990	770	1020	815	1070	855	1105	925	1135	960	1165	1015	1195	1075	1220	1115		
2000 [944]	—	—	—	—	775	600	815	625	860	720	930	750	930	750	975	800	1015	840	1050	900	1085	940	1120	1000	1145	1035	1175	1090	1205	1205		
2100 [991]	—	—	—	—	810	650	840	680	880	740	920	780	955	820	995	880	1030	920	1065	960	1100	1025	1130	1060	1160	1130	1190	1180	1220	1240	1295	
2200 [1038]	780	660	825	700	865	750	910	810	945	850	980	880	1015	930	1050	1000	1080	1045	1120	1100	1145	1160	1180	1220	1205	1260	1230	1330	1255	1380		
2300 [1085]	815	720	855	760	890	830	930	870	960	910	1000	960	1035	1005	1065	1060	1100	1130	1135	1180	1180	1250	1200	1325	1220	1370	1240	1425	—	—		
2400 [1133]	845	780	880	835	920	900	950	945	990	990	1025	1050	1055	1110	1085	1155	1120	1215	1150	1335	1185	1355	1220	1430	1235	1470	1255	1525	—	—		
2500 [1180]	870	855	910	915	945	975	980	1020	1020	1085	1045	1140	1080	1200	1110	1260	1135	1300	1175	1390	1205	1450	1230	1530	1250	1580	1295	1630	—	—		
2600 [1227]	900	945	940	1005	975	1060	1005	1105	1040	1175	1065	1225	1100	1295	1135	1350	1165	1425	1200	1505	1225	1580	1240	1635	1270	1665	—	—	—	—		
2700 [1274]	930	1075	970	1100	1000	1145	1030	1200	1060	1260	1090	1335	1125	1395	1155	1470	1185	1540	1220	1615	1235	1675	1255	1730	—	—	—	—	—	—		
2800 [1321]	960	1150	1000	1195	1025	1240	1055	1305	1085	1350	1115	1440	1145	1510	1180	1560	1210	1620	1235	1740	1250	1775	1295	—	—	—	—	—	—	—		

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

Drive Package	L												M															
Motor H.P. [W]	1 1/2 [1119]												1 1/2 [1119]															
Blower Sheave	6.4" Pitch Diameter												6.4" Pitch Diameter															
Motor Sheave	2.8"-3.8" Pitch Diameter—Adj.												3.4"-4.4" Pitch Diameter—Adj.															
Turns Open	0	1	2	3	4	5	6	0	1	2	3	4	5	6	0	1	2	3	4	5	6	0	1	2	3	4	5	6
RPM	1100	1050	<b>1000</b>	945	895	845	780	1295	1230	1195	<b>1145</b>	1100	1050	1000	1295	1230	1195	<b>1145</b>	1100	1050	1000	1295	1230	1195	<b>1145</b>	1100	1050	1000

NOTE: Factory sheave settings are shown in bold print.

[ ] Designates Metric Conversions

ELECTRICAL DATA – RKKN SERIES							
		B072CL	B072CM	B072DL	B072DM	B072YL	B072YM
Unit Information	Unit Operating Voltage Range	187-253	187-253	414-506	414-506	518-632	518-632
	Volts	208/230	208/230	460	460	575	575
	Phase	3	3	3	3	3	3
	Hz	60	60	60	60	60	60
	Minimum Circuit Ampacity	33	33	15	15	12	12
	Minimum Overcurrent Protection Device Size	40	40	20	20	15	15
	Maximum Overcurrent Protection Device Size	50	50	20	20	15	15
Compressor Motor	No.	1	1	1	1	1	1
	Volts	208/230	208/230	460	460	575	575
	Phase	3	3	3	3	3	3
	RPM	3450	3450	3450	3450	3450	3450
	HP, Compressor 1	5	5	5	5	5	5
	Amps (RLA), Comp. 1	19.6	19.6	8.2	8.2	6.6	6.6
	Amps (LRA), Comp. 1	136	136	66.1	66.1	55.3	55.3
Condenser Motor	No.	1	1	1	1	1	1
	Volts	208/230	208/230	460	460	575	575
	Phase	1	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/3	1/3
	Amps (FLA, each)	2.2	2.2	1.5	1.5	1	1
	Amps (LRA, each)	4.7	4.7	2.4	2.4	1.5	1.5
Evaporator Fan	No.	1	1	1	1	1	1
	Volts	208/230	208/230	460	460	575	575
	Phase	3	3	3	3	3	3
	HP	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
	Amps (FLA, each)	5.6	5.6	2.8	2.8	2.3	2.3
	Amps (LRA, each)	34	34	17	17	13.1	13.1

# GAS HEAT / ELECTRIC COOLING PACKAGE

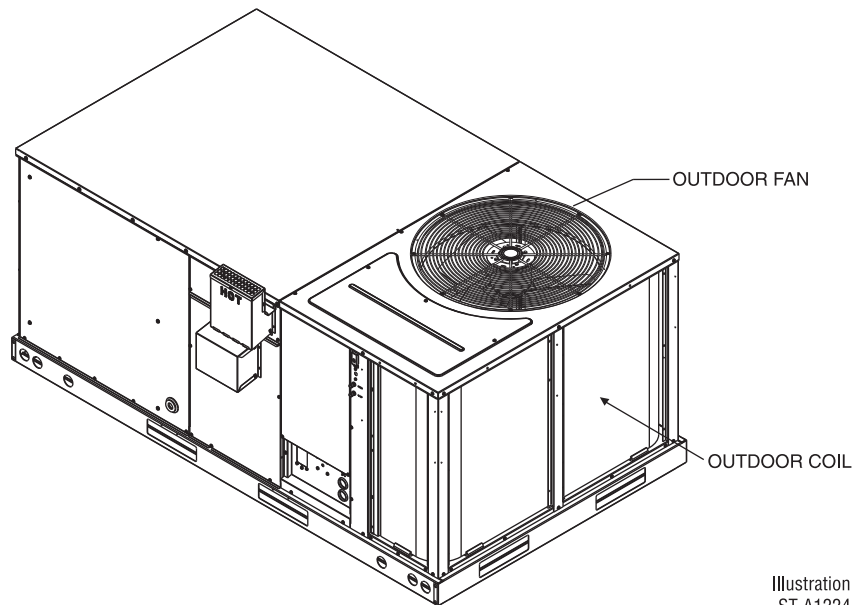


Illustration  
ST-A1224

## BOTTOM VIEW

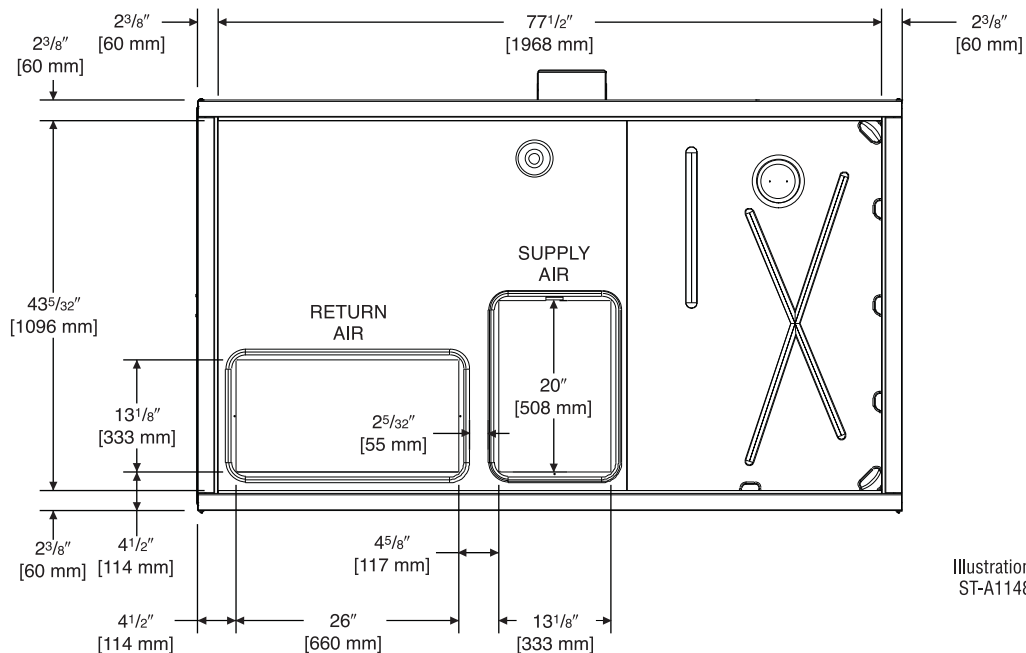


Illustration  
ST-A1148

[ ] Designates Metric Conversions

# GAS HEAT / ELECTRIC COOLING PACKAGE

## BACK VIEW

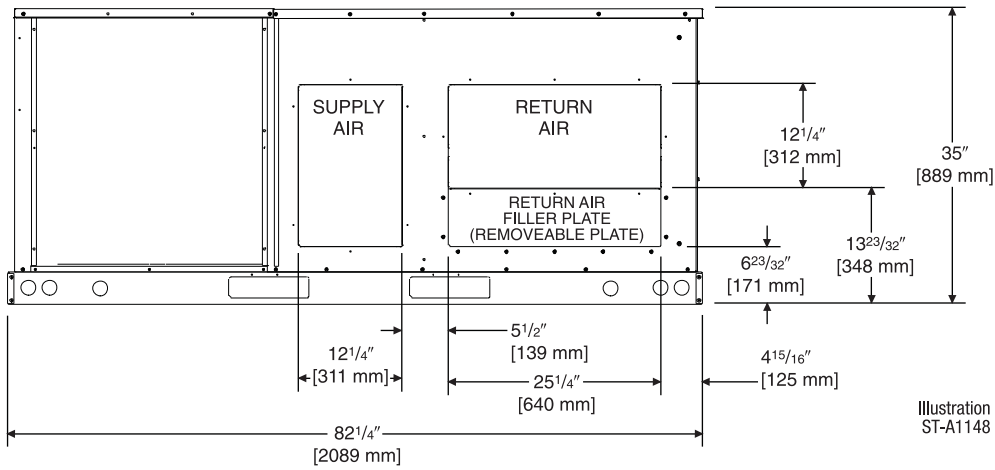


Illustration  
ST-A1148

## SIDE VIEW

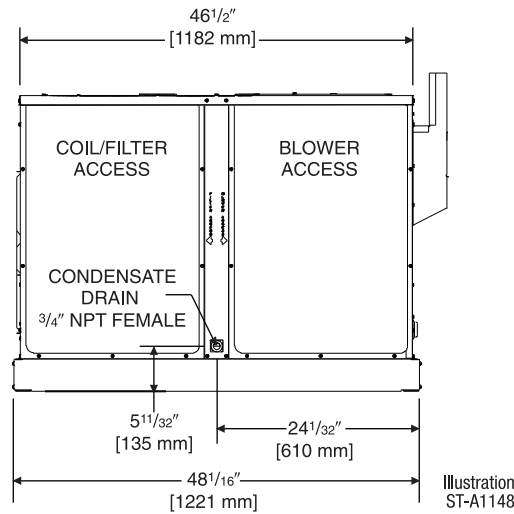


Illustration  
ST-A1148

## FRONT VIEW

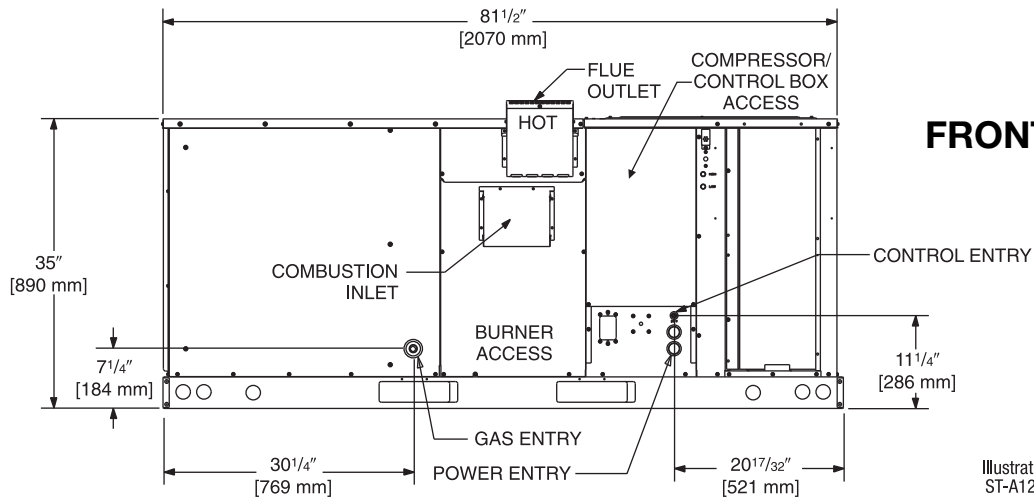


Illustration  
ST-A1224

[ ] Designates Metric Conversions



## WEIGHTS

Accessory	6 Ton [21.1 kW]	
	Shipping	Operating
	lbs [kg]	lbs [kg]
Economizer with Single Enthalpy	70 [32]	60 [27]
Power Exhaust	19 [9]	16 [7]
Fresh Air Damper (Manual)	11 [5]	9 [4]
Fresh Air Damper (Motorized)	13 [6]	11 [5]
Roof Curb 14"	92 [42]	88 [40]
Roof Curb 24"	108 [49]	104 [47]
Concentric Diffuser 18" Flush	37 [17]	26 [12]
Concentric Diffuser 20" Flush	54 [24]	42 [19]
Side Discharge Concentric Diffuser RXRN-FA60	35 [16]	20 [9]
Side Discharge Concentric Diffuser RXRN-FA65	55 [25]	40 [18]

### CENTER OF GRAVITY (C.G.)

Capacity Tons [kW]	A in. [mm]	B in. [mm]
6 [21.1]	38 <sup>1</sup> / <sub>4</sub> [972]	25 <sup>3</sup> / <sub>4</sub> [654]

Capacity Tons [kW]	Corner Weights by Percentage			
	A	B	C	D
6 [21.1]	22%	27%	23%	28%

### CLEARANCES (6 Ton [21.1 kW] Models)

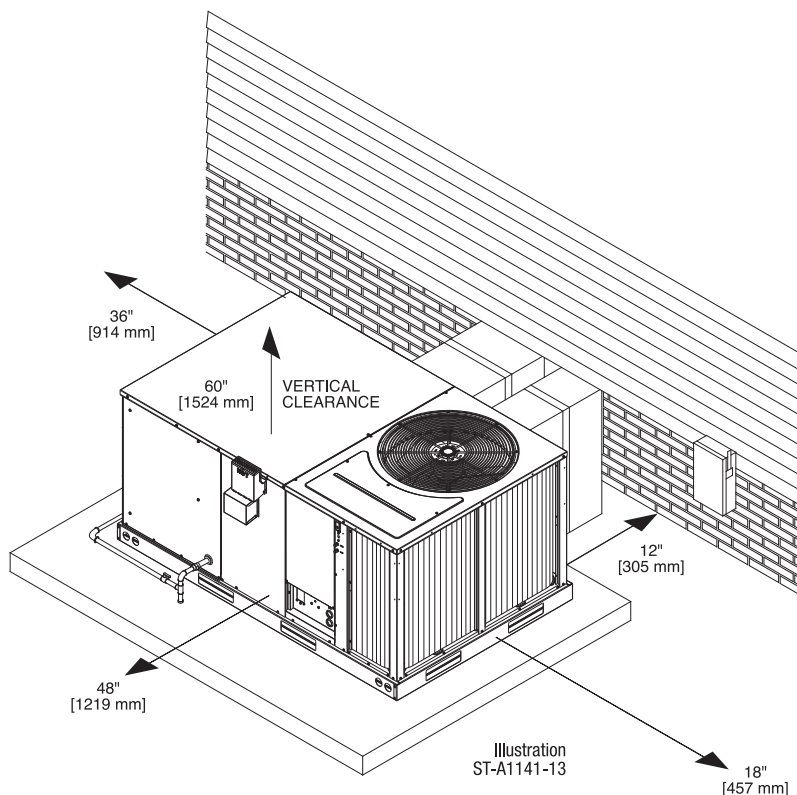
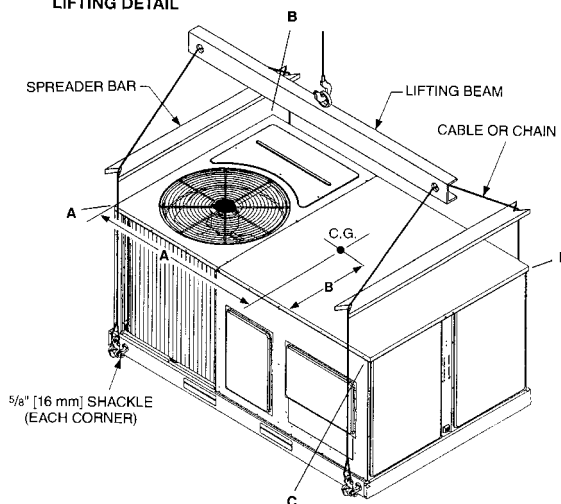
The following minimum clearances are recommended for proper unit performance and serviceability.

Recommended Clearance in. [mm]	Location
48 [1219]	A - Front
18 [457]	B - Condenser Coil
12 [305]	C - Duct Side
36 [914]	D - Evaporator End
60 [1524]	E - Above

\*Without Economizer. 57" [1448 mm] With Economizer

**NOTE:** Supply duct may be installed with "0" inch clearance to combustible materials, provided 1" [25.4 mm] minimum fiberglass insulation is applied either inside or on the outside of the duct.

### LIFTING DETAIL



[ ] Designates Metric Conversions

## ACCESSORY EQUIPMENT

Accessory Description	Model Application	Accessory Model No.	Factory Installed
Thermostats	RKKK-B072	See Thermostat Specification Sheet (T22-001)	No
Roofcurb, 14"	RKKK-B072	RXKG-CAD14	No
Roofcurb, 24"	RKKK-B072	RXKG-CAD24	No
Roofcurb adapters	RKKK-B072	RXR-CCCE50	No
Economizer, with single enthalpy ②	RKKK-B072	AXRD-01RCCAM3	Yes
Economizer, with smoke detector ②	RKKK-B072	AXRD-01RCCBM3	Yes
Dual enthalpy kit for economizer	RKKK-B072	RXR-AV04	No
CO <sup>2</sup> sensor	RKKK-B072	RXR-AR02	No
Power exhaust (C, D, Y voltages)	RKKK-B072	AXR-BGF03	No
Fresh air damper, manual	RKKK-B072	AXR-FCA1	No
Fresh air damper, motorized	RKKK-B072	AXR-FCB1	No
Rectangular-to-round 20" duct adapters for concentric diffuser	RKKK-B072	RXMC-CC04	No
Concentric diffuser 20", step type	RKKK-B072	RXR-FA65	No
Concentric diffuser 20", flush type	RKKK-B072	RXR-FA75	No
Louver kit, 3-sided	RKKK-B072	AXR-AAD01B	Yes
Compressor time delay	RKKK-B072	RXMD-B04	No
Low ambient control	RKKK-B072	RXR-A04	Yes
Convenience outlet (requires separate power supply)	RKKK-B072	RXR-AN02	Yes
Service disconnect switch	RKKK-B072	RXR-AP01	Yes
LP conversion kit for White Rodgers gas valve (see note 1)	RKKK-B072	RXGJ-EP84W	No
LP conversion kit for Honeywell gas valve (see note 1)	RKKK-B072	RXGJ-EP85H	No
Freeze stat control	RKKK-B072	RXR-AM01	Yes
Canadian high-altitude kit for natural gas only (see note 1)	RKKK-B072	RXR-AH01	No

\*Voltage C = 208/230 VAC-3PH-60HZ D = 460 VAC-3PH-60HZ  
Y = 575 VAC-3PH-60HZ

- NOTES:** 1. If a unit is to be converted to operate on LP gas above 2000 ft. in Canada, the conversion kits contain the necessary orifices and instructions to de-rate the input for 2000-4500 ft.  
2. Economizer is designed for downflow or horizontal applications.

[ ] Designates Metric Conversions

## THERMOSTATS



**200-Series \***  
Programmable



**300-Series \***  
Deluxe  
Programmable

**400-Series \***  
Special Applications/  
Programmable

Brand	Descriptor (3 Characters)	Series (3 Characters)	System (2 Characters)	Type (2 Characters)
<b>UHC</b>	<b>-</b>	<b>TST</b>	<b>213</b>	<b>UN</b>
UHC=Ruud	TST=Thermostat	200=Programmable 300=Deluxe Programmable 400=Special Applications/ Programmable	GE=Gas/Electric UN=Universal (AC/HP/GE) MD=Modulating Furnace DF=Dual Fuel	SS=Single-Stage MS=Multi-Stage

\* Photos are representative. Actual models may vary.

For detailed thermostat match-up information,  
see specification sheet form number T22-001.

## Roofcurb Adapters

### Old Models

#### COMMERCIAL PACKAGE UNIT (6.5 & 7.5 TON [23-26 kW])

(-)-RCF, (-)-REF, (-)-RGF131 & 201, RGF150

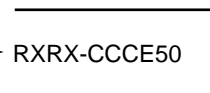


### OLD CURB MODEL

→ RXRK-E50

(1) SLOPE TYPE (2) FULL PERIMETER TYPE

### ROOFCURB ADAPTER



→ RXRX-CCCE50

### NEW MODEL

→ RKKN-B072

[ ] Designates Metric Conversions

## ECONOMIZERS

AXRD-01RCCAM3—3-6 Ton [10.6-21.1 kW] Models  
AXRD-01RCCBM3—3-6 Ton [10.6-21.1 kW] Models

RXXR-AV04—3-6 Ton [10.6-21.1 kW] Models

RXXR-AR02—3-6 Ton [10.6-21.1 kW] Models

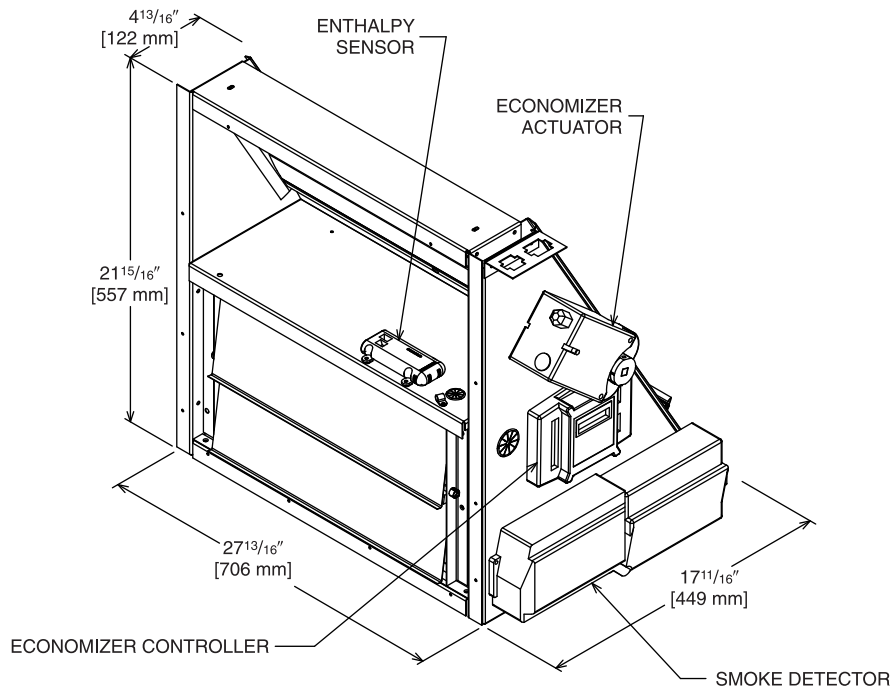
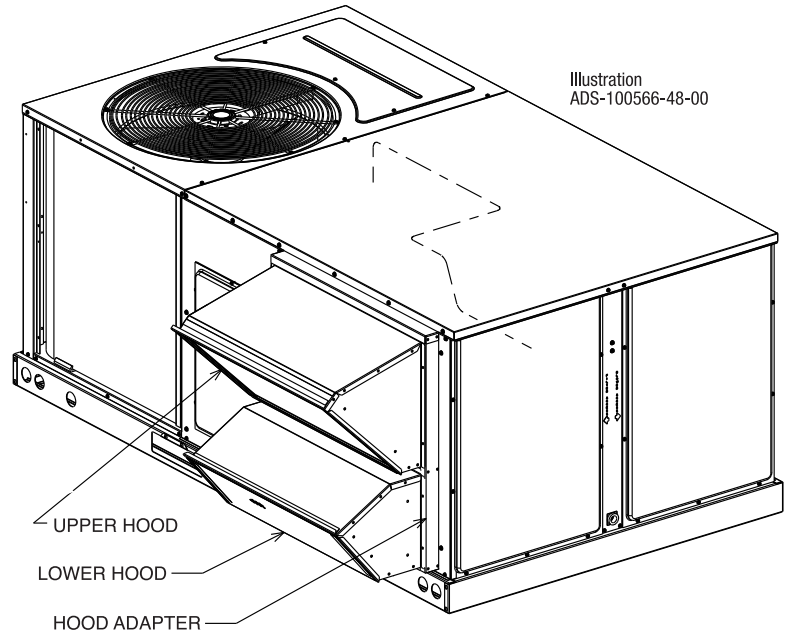
- Features **Honeywell JADE™** Digital Controls
- Available factory installed or field accessory
- Gear Driven Direct Drive Actuator
- Fully Modulating (0-100%)
- Ultra Low Leak Dampers Meet California Title 24 requirements
- Horizontal or Downflow Applications
- Slip-In Design for Easy Installations
- Plug-In Polarized 12-pin Electrical Connections
- Pre-configuring—No Field Adjustments Necessary
- Standard Barometric Relief Damper Provided
- Single Enthalpy with Dual Enthalpy upgrade kit
- CO<sub>2</sub> Input Sensor Available (field installed)
- Economizer slips in complete for downflow or horizontal duct applications
- Field assembled hood ships with Economizer
- Field installed power exhaust available.

[ ] Designates Metric Conversions

Single Enthalpy (with Barometric Relief)  
Single Enthalpy and Smoke Detector

Dual Enthalpy Kit

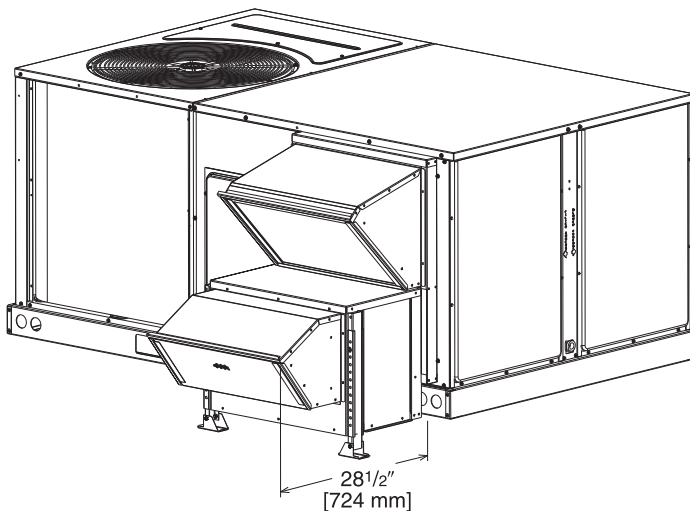
Optional CO<sub>2</sub> Sensor



## INTEGRAL POWER EXHAUST FOR ECONOMIZER (FIELD INSTALLED ONLY)

- AXRX-BGF03C**—RKKN-B 6 Ton [21.1 kW]  
Models 208-230 V, 1 PH, 60 Hz
- AXRX-BGF03D**—RKKN-B 6 Ton [21.1 kW]  
Models 460 V, 3 PH, 60 Hz
- AXRX-BGF03Y**—RKKN-B 6 Ton [21.1 kW]  
Models 575 V, 3 PH, 60 Hz

- For **Honeywell** economizer.
- Downflow or horizontal applications.
- Requires separate 208-230 volt – 1 PH power supply with disconnect or requires separate 460V – 3 PH power supply with disconnect.
- Adjustable switch on economizer, factory preset to energize power exhaust at 95% outside air position.
- Polarized plug connects power exhaust relay to economizer.



## POWER EXHAUST KIT FOR AXRD-01RCCAM3 & AXRD-01CCBM3 ECONOMIZERS

Model No.	No. of Fans	Volts	Phase	Watts (ea.)	High Speed		FLA (ea.)	LRA (ea.)
					CFM ①	RPM		
AXRX-BGF03C	1	208/230	1	1000	2500	1725	4.4	23.7
AXRX-BGF03D	1	460	1	800	2370	1620	1.8	4.1
AXRX-BGF03Y ②	1	575	1	800	2370	1620	1.5	3.3

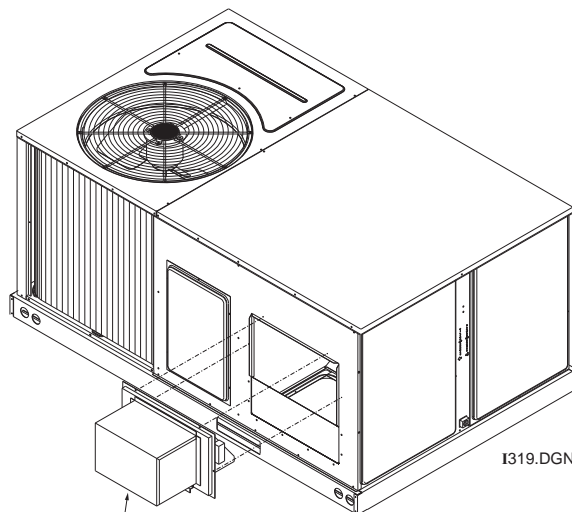
① CFM is at 0" W.C. external static pressure.

② Unit includes 575 to 460 Volt step-down transformer.

## FRESH AIR DAMPER

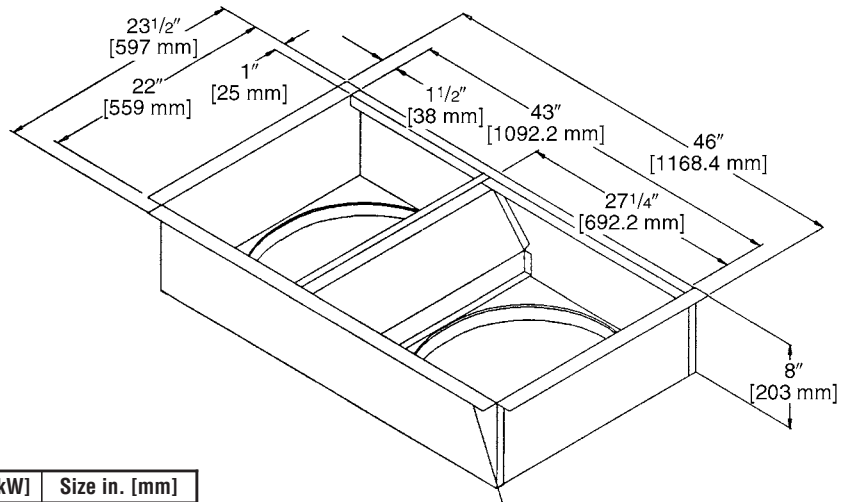
**RKKN-B 6 Ton [21.1 kW] Models**  
AXRF-FCA1 (Manual)  
AXRF-FCB1 (Motorized)

[ ] Designates Metric Conversions



FRESH AIR DAMPER

## DUCT ADAPTERS (RKKN-B 6 Ton [21.1 kW] Models) Rectangular to Round Transitions (Downflow) RXMC-CC04 20" [508 mm] Round



PLACE 1/8" [3.18 mm] X 1/2" [12.7 mm] GASKET  
 ON UNDERSIDE OF 1 1/2" [38.1 mm] FLANGE

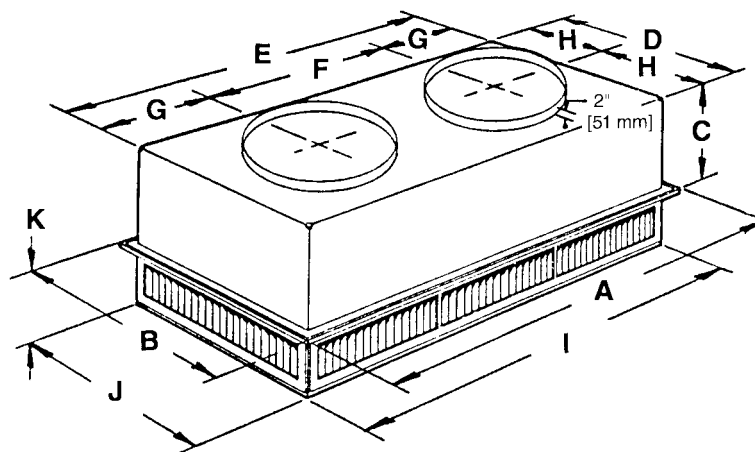
Accessory Model No.	Model Application Tons [kW]	Size in. [mm]
RXMC-CB03	3-5 [10.6-17.6]	18 [457] Round
RXMC-CC04	6 [21.1]	20 [508] Round

[ ] Designates Metric Conversions

## SIDE DISCHARGE CONCENTRIC DIFFUSER

RXRN-FA65 (6 Ton [21.1 kW] Model)

For Use With Duct Adapter (RXMC)



### DIMENSIONAL DATA

Model No.	A	B	C	D	E	F	G	H	I	J	K	Duct Size
RXRN-FA65	47 <sup>5</sup> / <sub>8</sub> " [1210 mm]	29 <sup>5</sup> / <sub>8</sub> " [752 mm]	14 <sup>3</sup> / <sub>8</sub> " [365 mm]	27 <sup>1</sup> / <sub>2</sub> " [699 mm]	45 <sup>1</sup> / <sub>2</sub> " [1156 mm]	22 <sup>1</sup> / <sub>2</sub> " [572 mm]	11 <sup>1</sup> / <sub>2</sub> " [292 mm]	13 <sup>3</sup> / <sub>4</sub> " [349 mm]	45 <sup>1</sup> / <sub>2</sub> " [1156 mm]	27 <sup>1</sup> / <sub>2</sub> " [699 mm]	8 <sup>1</sup> / <sub>8</sub> " [206 mm]	20RD

### ENGINEERING DATA

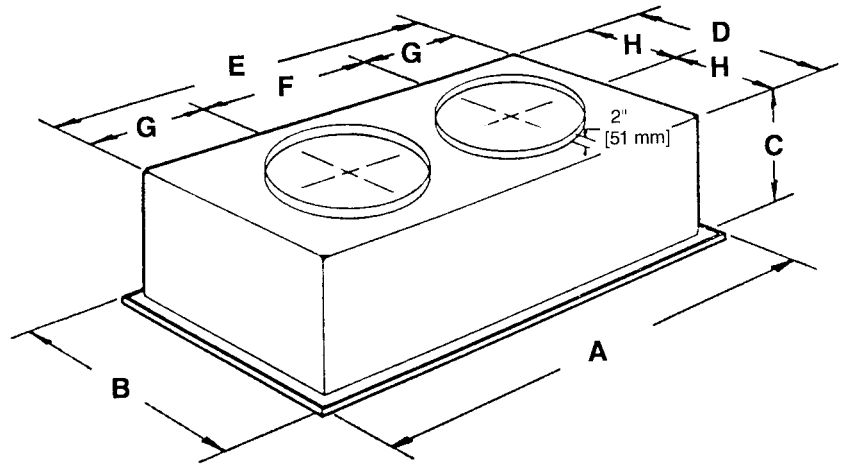
Model No.	CFM [L/s]	Static Pressure	Throw Feet	Neck Vel.	Jet Vel.	Noise Level
RXRN-FA65	2600 [1227]	.17	24-29	669	669	20
	2800 [1321]	.20	25-30	720	720	25
	3000 [1416]	.25	27-33	772	772	25
	3200 [1510]	.31	28-35	823	823	25
	3400 [1605]	.37	30-37	874	874	30

[ ] Designates Metric Conversions

## FLUSH MOUNT CONCENTRIC DIFFUSER

RXRN-FA75 (6 Ton [21.1 kW] Model)

For Use With Duct Adapter (RXMC)



### DIMENSIONAL DATA

Model No.	A	B	C	D	E	F	G	H	Duct Size
RXRN-FA75	47 <sup>5</sup> / <sub>8</sub> " [1210 mm]	29 <sup>5</sup> / <sub>8</sub> " [752 mm]	16 <sup>5</sup> / <sub>8</sub> " [422 mm]	27" [686 mm]	45" [1143 mm]	22 <sup>1</sup> / <sub>2</sub> " [572 mm]	11 <sup>1</sup> / <sub>4</sub> " [286 mm]	13 <sup>1</sup> / <sub>2</sub> " [343 mm]	20RD

### ENGINEERING DATA

Model No.	CFM [L/s]	Static Pressure	Throw Feet	Neck Vel.	Jet Vel.	Noise Level
RXRN-FA75	2600 [1227]	.17	19-24	663	1294	30
	2800 [1321]	.20	20-28	714	1393	35
	3000 [1416]	.25	21-29	765	1492	35
	3200 [1510]	.31	22-29	816	1592	40
	3400 [1605]	.37	22-30	867	1692	40

[ ] Designates Metric Conversions

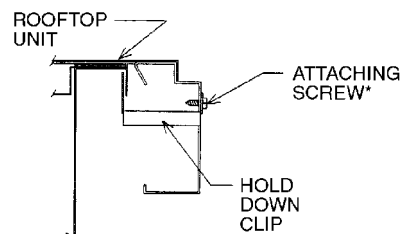
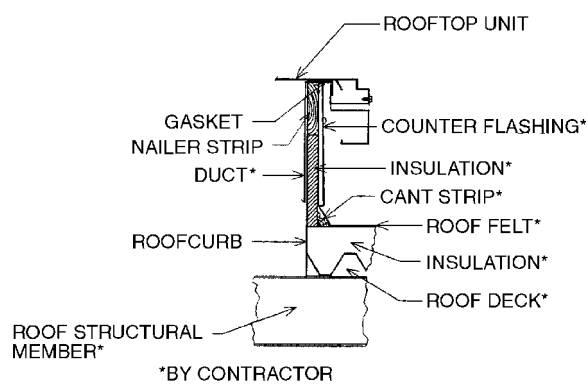


## ROOFCURBS (Full Perimeter)

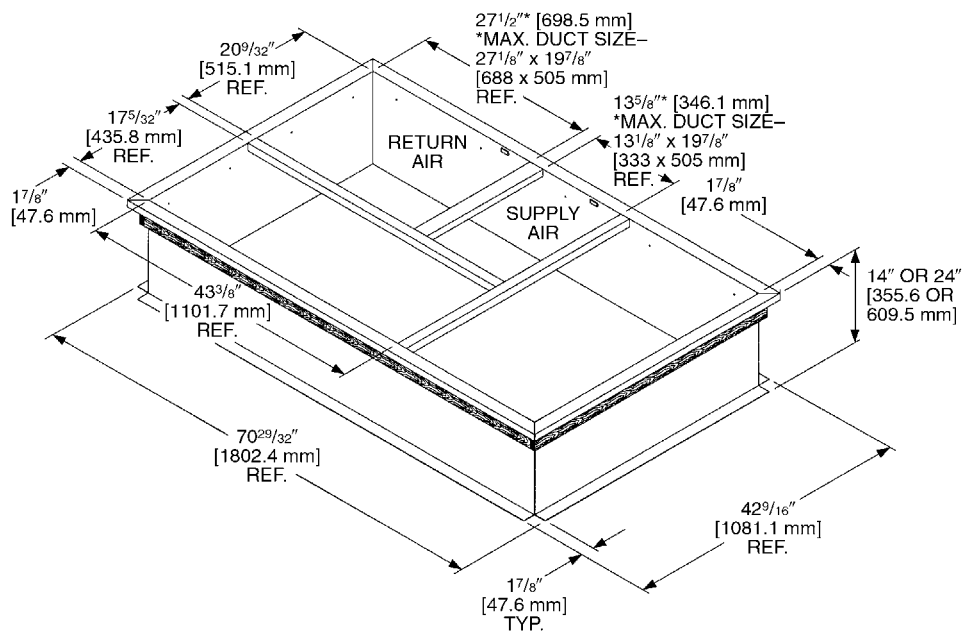
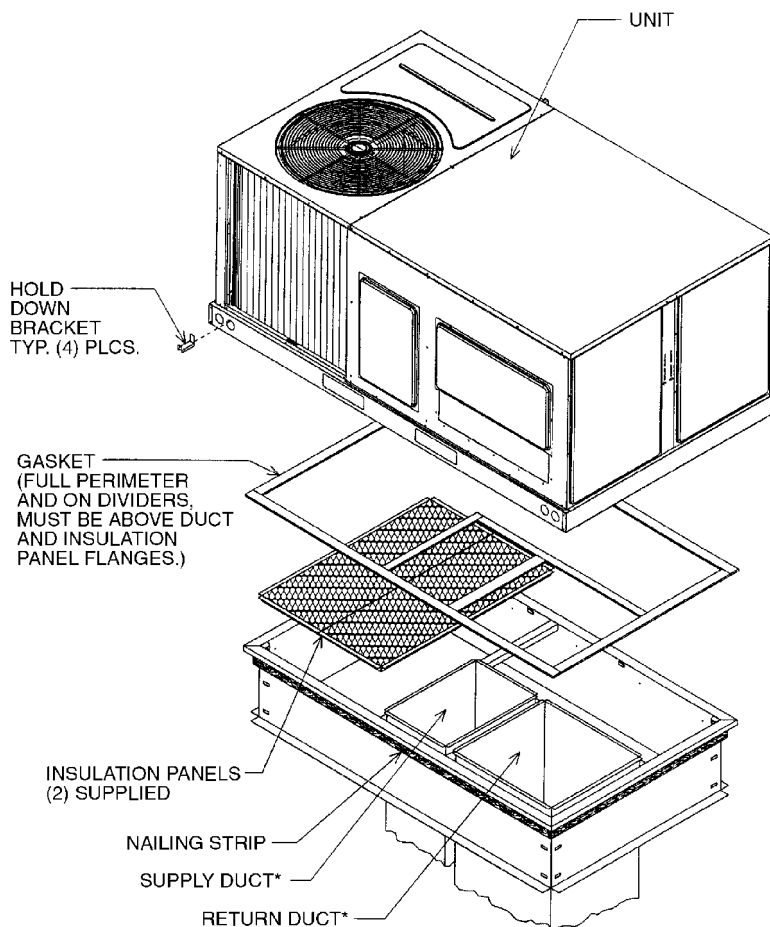
- Ruud's new roofcurb design can be utilized on 3 through 7.5 ton [21.1 kW] models.
- Two available heights (14" [356 mm] and 24" [610 mm]) for ALL models.
- Quick assembly corners for simple and fast assembly.
- Opening provided in bottom pan to match the "Thru the Curb" electrical connection opening provided on the unit base pan.
- 2" [51 mm] x 4" [102 mm] Nailer provided.
- Insulating panels provided.
- Sealing gasket (28" [711 mm]) provided with Roofcurb.
- Packaged for easy field assembly.

Roofcurb Model	Height of Curb
RXKG-CAD14	14" [356 mm]
RXKG-CAD24	24" [610 mm]

[ ] Designates Metric Conversions



## TYPICAL INSTALLATION



## SAMPLE SPECIFICATIONS

Unit shall be completely factory assembled and performance tested to provide the required cooling and heating functions suitable for outdoor installations. Unit shall be UL/cUL listed and rated in accordance to AHRI Standard 210.

### Cabinet

Unit casing, base pan and framework shall be manufactured of galvanized sheet metal primed and finished pre-painted metal capable of withstanding a 1000-hour salt spray test per ASTM B 117. Unit interior cabinet surfaces shall be insulated with a minimum 1/2-inch thick foil faced insulation. Access panels shall be easily removable providing access to the blower, filter, heating compartment, and compressor/control box. Unit base rails shall be provided with fork insertion slots and rigging holes. Condensate drain pan shall be of sloped design to conform to ASHRAE 62. Unit shall be supplied ready for vertical airflow and be easily convertible to horizontal airflow at or before installation.

### Compressor(s)

Unit shall be provided with fully hermetic scroll compressor(s) with internally protected safety controls.

### Coils

Aluminum Micro Channel evaporator and condenser coils. Aluminum lanced fins thermally bonded to aluminum multi-port flat tube design. Leak tested using helium mass spectrometry.

### Condenser Fan

A single direct drive propeller fan shall discharge air vertically upward. The fan motor shall be permanently lubricated and have built-in overload protection.

### Evaporator Blower

A single, double inlet, centrifugal wheel shall rotate in permanently lubricated ball bearings. The wheel shall be made from steel with corrosion resistant finish and shall be statically and dynamically balanced.

## ACCESSORIES

### ROOF CURB

Curb shall be full perimeter type, complying with the standards of the National Roofing Contractors Association. Design shall provide for drop-in of supply and return ducts prior to setting unit, and include an insulating panel for the rest of the curb area.

### Economizer

Economizer shall be completely assembled for field installation. Unit shall include all controls and dampers including the barometric relief damper.

### Manual Fresh Air Damper

Damper shall consist of damper and rainhood which is manually preset to admit up to 35% of outside air for field installation.

### Motorized Fresh Air Damper

Damper shall consist of motor, damper, and rainhood which can admit up to 35% of outside air for field installation.

### Pressure Controls

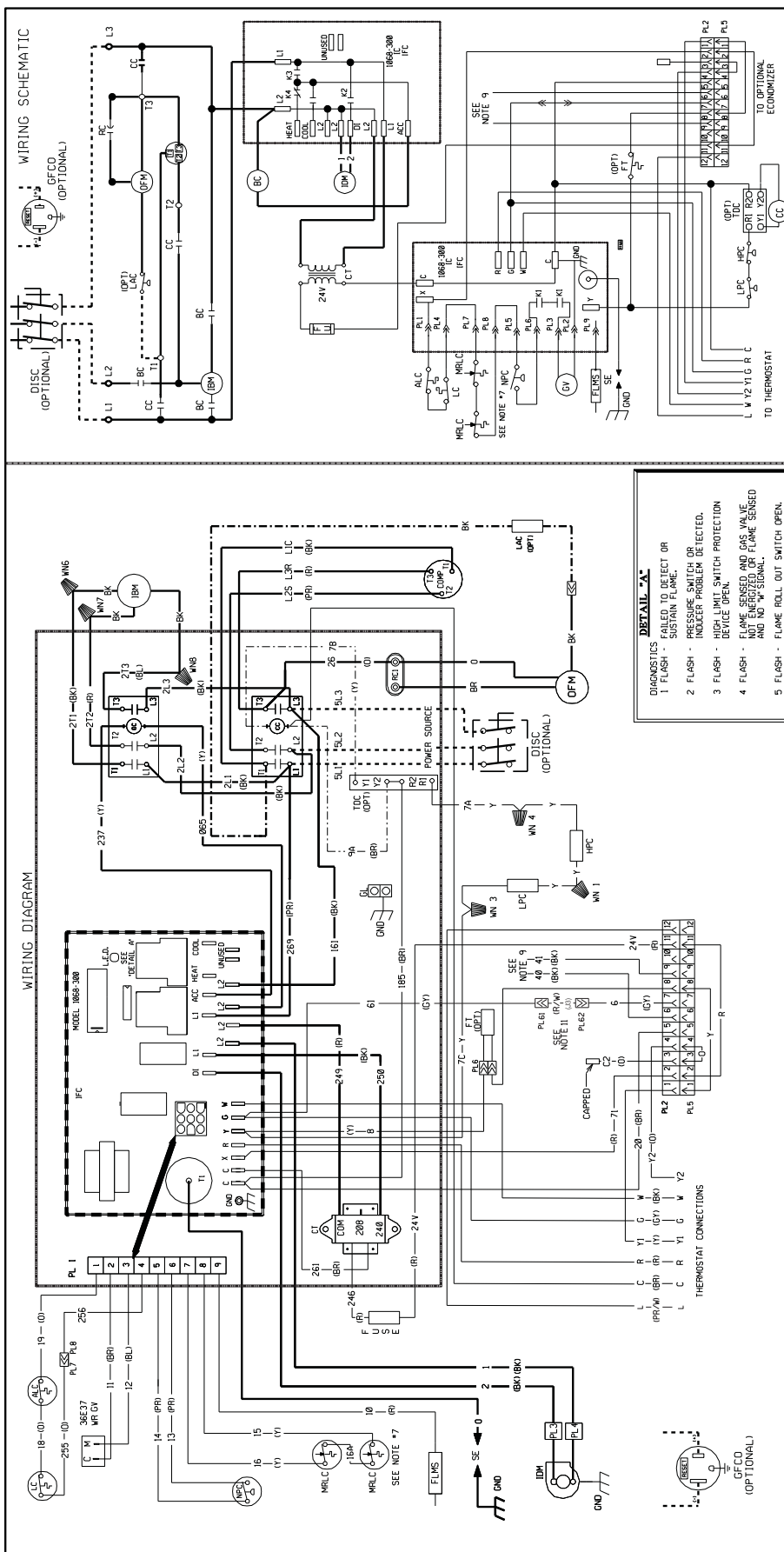
High and low pressure controls are factory installed.

### Low Ambient Control

Low ambient control shall be provided to cycle the condenser fan in response to condensing pressure and allow operation to 0 degrees F. The option shall be field or factory installed.

### Louver Panel Kits

Field or factory installed louver kits shall be provided for condenser coil protection against hail or flying debris.



WIRE COLOR CODE	
BK.....BLACK	G.....GREEN
BR.....BROWN	GY.....GRAY
BL.....BLUE	O.....ORANGE
	W.....WHITE
	Y.....YELLOW

ELECTRICAL WIRING DIAGRAM	
208 / 230, 3 PHASE, 60 HZ	
200 / 220, 3 PHASE, 50 HZ	
BELT DRIVE	

APPROVED:	CHECKED:	ORIGINAL RELEASE NO.:
MOBELED KDF	DATE: 4-02-14	R-1064/S001
BY:		
PART NO.:	90-23596-52	REV: 03

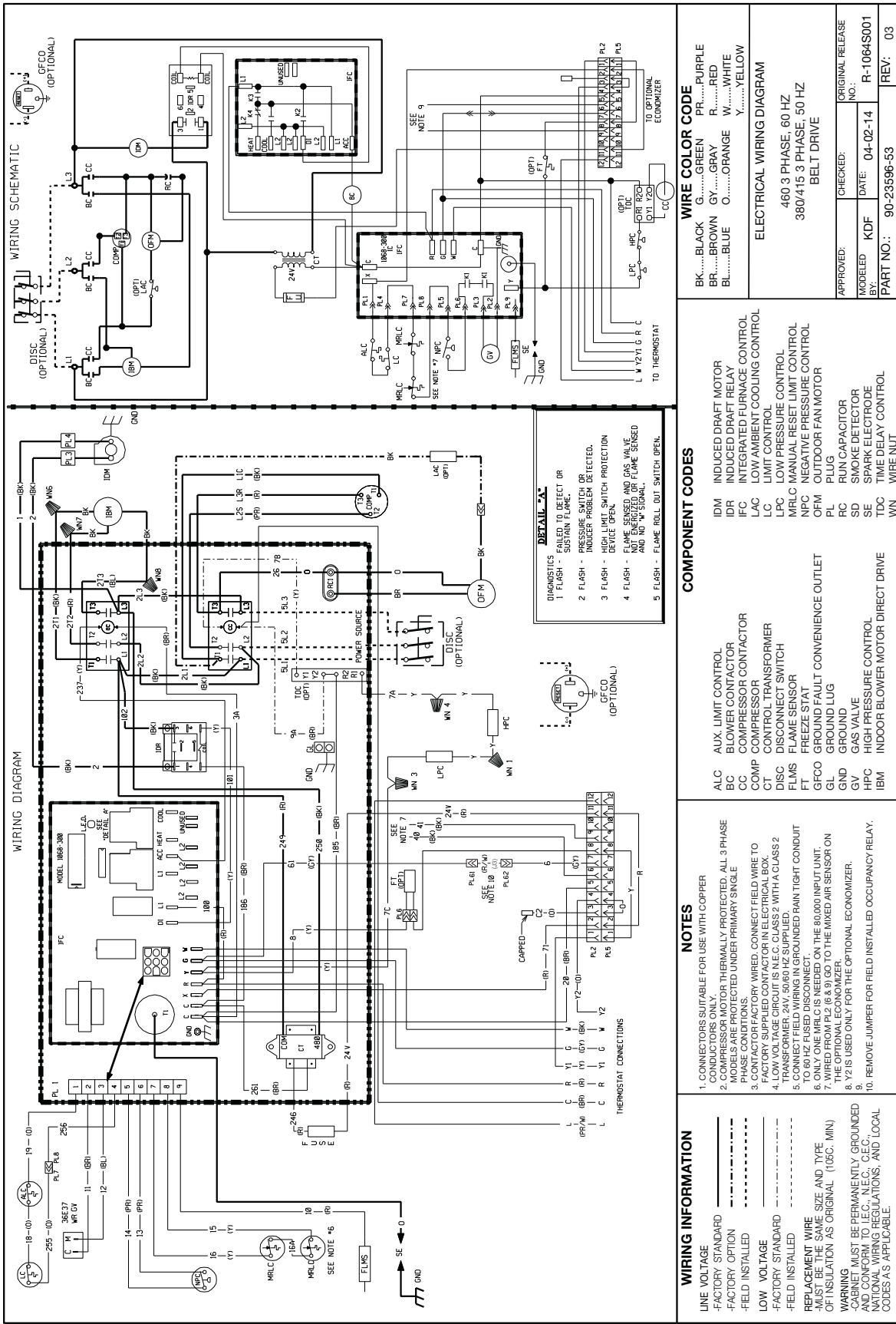
COMPONENT CODES	
ALC	AUX. LIMIT CONTROL
BC	BLOWER CONTACTOR
CC	COMPRESSOR CONTACTOR
COMP	CONTROL TRANSFORMER
DISC	DISCONNECT SWITCH
FLMS	FLAME SENSOR
FT	FREEZE STAT
GFCD	GROUND FAULT CONVENIENCE OUTLET
GL	GROUND LUG
GND	GROUND
GV	GAS VALVE
HPC	HIGH PRESSURE CONTROL
IBM	INDOOR BLOWER MOTOR DIRECT DRIVE
IDM	INDUCED DRAFT MOTOR
IFC	INTEGRATED FURNACE CONTROL
LAC	LOW AMBIENT COOLING CONTROL
LPC	LIMIT CONTROL
MRIC	MANUAL RESET LIMIT CONTROL
NPC	NEGATIVE PRESSURE CONTROL
OFM	OUTDOOR FAN MOTOR
PL	PLUG
RC	RUN CAPACITOR
SD	SMOKE DETECTOR
SE	SPARK ELECTRODE
TDC	TIME DELAY CONTROL
WN	WIRE NUT

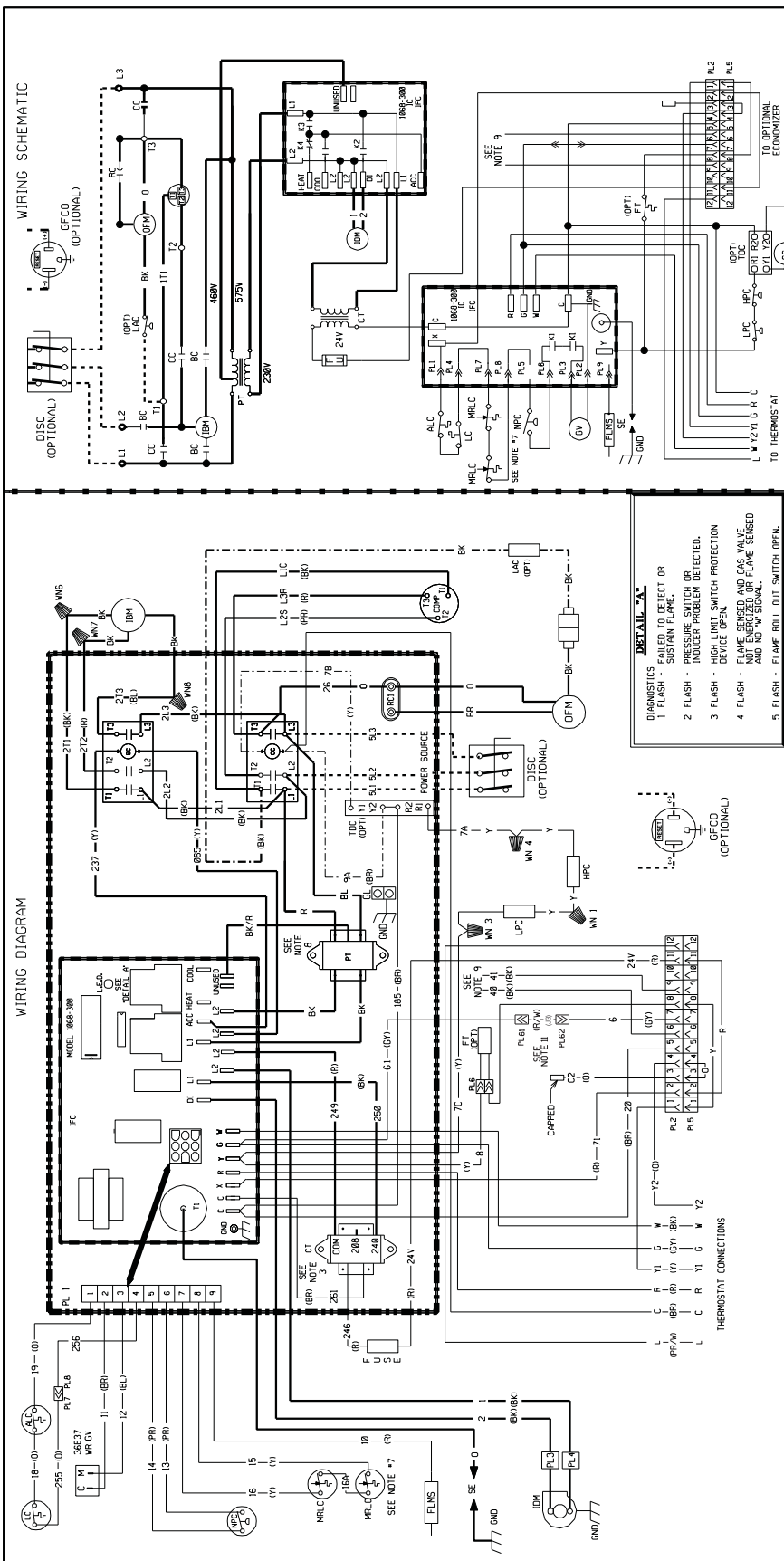
  

NOTES	
1.	CONNECTORS SUITABLE FOR USE WITH COPPER
2.	CONDUCTORS ONLY FOR THERMALLY PROTECTED. ALL 3 PHASE MODELS ARE PROTECTED UNDER PRIMARY SINGLE PHASE CONDITIONS.
3.	CONTROL TRANSFORMER FACTORY WIRED FOR 230 VOLT OPERATION. MOVE BLACK WIRE TO 208 VOLT TAP FOR 208 VOLT OPERATION.
4.	FACTORY SUPPLIED CONTACTOR IN ELECTRICAL BOX.
5.	LOW VOLTAGE CIRCUIT IS N.E.C. CLASS 2 WITH A CLASS 2 TRANSFORMER. 24V, 50/60 HZ SUPPLIED.
6.	CONNECT FIELD WIRING IN GROUNDED RAIN TIGHT CONDUIT TO 60 HZ FUSED DISCONNECT.
7.	USE THE 60,000 AMP TIGHT CONDUIT FOR CORRECT SPEED.
8.	MOTOR FACTORY WIRED FOR CORRECT SPEED.
9.	WIRE FROM PL2 (6 & 9) TO THE MIXED AIR SENSOR ON THE OPTIONAL ECONOMIZER.
10.	Y2 IS USED ONLY FOR THE OPTIONAL ECONOMIZER.
11.	REMOVE JUMPER FOR FIELD INSTALLED OCCUPANCY RELAY.

WIRING INFORMATION	
LINE VOLTAGE	—————
-FACTORY STANDARD	—————
-FACTORY OPTION	-----
-FIELD INSTALLED	-----
LOW VOLTAGE	-----
-FACTORY STANDARD	-----
-FIELD INSTALLED	-----
REPLACEMENT WIRE	-----
MUST BE THE SAME SIZE AND TYPE	
OF INSULATION AS ORIGINAL (100% MIN.)	
WARNING	
CABINET MUST BE PERMANENTLY GROUNDED	
TO THE MAIN ELECTRICAL PANEL (M.E.P.)	
NATIONAL WIRING REGULATIONS AND LOCAL	
CODES AS APPLICABLE.	





**WIRE COLOR CODE**

BR.....BLACK	G.....GREEN	PR.....PURPLE
BL.....BLUE	GY.....GRAY	R.....RED
OR.....ORANGE	W.....WHITE	Y.....YELLOW

**ELECTRICAL WIRING DIAGRAM**

575, 3 PHASE, 60 HZ  
BELT DRIVE

APPROVED:	CHECKED:	ORIGINAL RELEASE NO.:
MODELED BY:	KDF	DATE: 04-02-14
PART NO.:	90-23596-54	R-1064S001
REV:	03	

**COMPONENT CODES**

ALC	AUX. LIMIT CONTROL	IDM	INDUCED DRAFT MOTOR
BC	BLOWER CONTACTOR	IFC	INTEGRATED FURNACE CONTROL
CC	COMPRESSOR CONTACTOR	LAC	LOW AMBIENT COOLING CONTROL
COMP	COMPRESSOR	LC	LIMIT CONTROL
CT	CONTROL TRANSFORMER	LPC	LOW PRESSURE CONTROL
DISC	DISCONNECT SWITCH	MRLC	MANUAL RESET LIMIT CONTROL
FLMS	FLAME SENSOR	NPC	NEGATIVE PRESSURE CONTROL
FT	FREEZE STAT	OFM	OUTDOOR FAN MOTOR
GL	GROUND LUG	PL	PLUG
GND	GROUND	RC	RUN CAPACITOR
GV	GAS VALVE	SD	SMOKE DETECTOR
HPC	HIGH PRESSURE CONTROL	SE	SPARK ELECTRODE
IBM	INDOOR BLOWER MOTOR DIRECT DRIVE	TDC	TIME DELAY CONTROL
		WN	WIRE NUT

**NOTES**

- CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
- COMPRESSOR MOTOR THERMALLY PROTECTED. ALL 3 PHASE MODELS ARE PROTECTED UNDER PRIMARY SINGLE PHASE OPERATION.
- CONTROL TRANSFORMER FACTORY WIRED FOR 230 VOLT OPERATION. MOVE BLACK WIRE TO 208 VOLT TAP FOR 208 VOLT OPERATION.
- FACTORY SUPPLIED CONTACTOR IN ELECTRICAL BOX.
- LOW VOLTAGE CIRCUIT IS N.E.C. CLASS 2 WITH A CLASS 2 TRANSFORMER. 24V, 50/60 HZ SUPPLIED.
- TO 100 HZ FUSED DISCONNECT ON THE 80,000 INPUT UNIT.
- ONLY ONE MRLC IS NEEDED ON THE 80,000 INPUT UNIT.
- POWER TRANSFORMER PRIMARY LEADS: BLUE-COMMON, RED-50/60 HZ, 15V 50/60 HZ, 24V 50/60 HZ TO THE WIKED AIR SENSOR ON THE OPTIONAL ECONOMIZER.
- REMOVE JUMPER FOR FIELD INSTALLED OCCUPANCY RELAY.

**WIRING INFORMATION**

- LINE VOLTAGE
- FACTORY STANDARD
- FACTORY OPTION
- FIELD INSTALLED
- LOW VOLTAGE
- FACTORY STANDARD
- FIELD INSTALLED

REPLACEMENT WIRE MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (105C, MIN.)

WARNING

- CABINET MUST BE PERMANENTLY GROUND AND CONFORM TO I.E.C., N.E.C., C.E.C. REGULATIONS, AND LOCAL CODES AS APPLICABLE.

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

**GENERAL TERMS OF LIMITED WARRANTY\***

Ruud 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.

Heat Exchanger .....Ten (10) Years

**\*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 Applications .....Five (5) Years

**Parts**

3 Phase, Commercial Applications .....One (1) Year

**Factory Standard Heat Exchanger**

3 Phase, Commercial Applications .....Ten (10) Years





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

Ruud Heating, Cooling & Water Heating • P.O. Box 17010  
Fort Smith, Arkansas 72917 • [www.ruud.com](http://www.ruud.com)

Ruud Canada • 125 Edgeware Road, Unit 1  
Brampton, Ontario • L6Y 0P5

**RELY ON RUUD.™**