



## 13 SEER CONDENSING UNITS



### Features

- Painted louvered steel cabinet.
- Easily accessible control box.
- Condenser coils constructed with copper tubing and enhanced aluminum fins.
- Grille/Motor mount for quiet fan operation.

### Applications

Outdoor condensing unit designed for ground level or rooftop installations. These units offer comfort and dependability for single, multi-family and light commercial applications.

### Accessories

- Low Pressure Control (RXAC-A03)
- High Pressure Control (RXAB-A03)
- Low Ambient Control (RXAD-A04)
- Compressor Time Delay Control
- Crankcase Heater
- Sound Enclosure
- Filter Drier

## RCU13022A\*\* SERIES

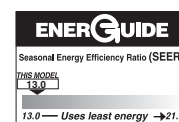
\*J, C, D

### IMPORTANT:

This product is shipped with a nitrogen holding charge that must be vented prior to evacuation and charging.

This product is only intended for condensing change-out in existing R-22 systems. New R-22 system installations are prohibited by EPA.

This product must be charged with Recycled R-22 refrigerant meeting AHRI 700 purity standard.



Model Number Identification

<u>RCU</u>	<u>13</u>	<u>022</u>	<u>A</u>	<u>18</u>	<u>J</u>
<u>PRODUCT CLASSIFICATION</u>	<u>SEER</u>	<u>REFRIGERANT</u>	<u>DESIGN SERIES</u>	<u>NOMINAL COOLING CAPACITY</u>	<u>VOLTAGE</u>
REMOTE CONDENSING UNIT	13 = 13 SEER	022 = R-22	1ST DESIGN	18 = 18,000 BTU/HR [5.28 kW] 24 = 24,000 BTU/HR [7.03 kW] 30 = 30,000 BTU/HR [8.79 kW] 36 = 36,000 BTU/HR [10.55 kW] 42 = 42,000 BTU/HR [12.31 kW] 48 = 48,000 BTU/HR [14.07 kW] 60 = 60,000 BTU/HR [17.58 kW]	J = 208-230V SINGLE PHASE C = 208-230V THREE PHASE D = 460V THREE PHASE

Performance Data @ AHRI Standard Conditions—Cooling

Model Numbers		80°F [26.5°C] DB/67°F [19.5°C] WB Indoor Air 95°F [35°C] DB Outdoor Air					Sound Rating dB	Indoor CFM [L/s]
Outdoor Unit RCU	Indoor Coil and/or Air Handler	Total Capacity BTU/H [kW]	Net Sensible BTU/H [kW]	Net Latent BTU/H [kW]	EER	SEER		
1302218J	RCFA-H*2417A* ①	18,300 [5.4]	13,000 [3.8]	5,300 [1.6]	11.70	13.00	76	600 [283]
1302224J	RCFA-H*2417A* ①	23,400 [6.9]	16,350 [4.8]	7,050 [2.1]	11.55	13.00	74	800 [378]
1302230J	RCFA-H*3617A* ①	28,600 [8.4]	20,100 [5.9]	8,500 [2.5]	11.50	13.00	73	1,000 [472]
1302236J	RCFA-H*3617A* ①	34,400 [10.1]	25,100 [7.4]	9,300 [2.7]	11.75	13.00	76	1,175 [554]
1302242J	RCFA-H*4821A* ①	40,500 [11.9]	29,000 [8.5]	11,500 [3.4]	11.15	13.00	76	1,400 [661]
1302248J	RCFA-H*4821A* ①	46,000 [13.5]	33,300 [9.8]	12,700 [3.7]	11.65	13.00	77	1,575 [743]
1302260J	RCFA-H*6024A* ①	57,000 [16.7]	39,400 [11.5]	17,600 [5.2]	11.10	13.00	77	1,725 [814]

① Highest sales volume tested combination required by D.O.E. test procedures.

[ ] Designates Metric Conversions

# Electrical and Physical Data

Model Number RCU	ELECTRICAL							PHYSICAL					
	Phase Frequency (Hz) Voltage [Volts]	Compressor		Fan Motor Full Load Amperes (FLA)	Minimum Circuit Ampacity Amperes	Fuse or HACR Circuit Breaker		Outdoor Coil			Refrigerant Per Circuit* Oz. [g]	Weight	
		Rated Load Amperes (RLA)	Locked Rotor Amperes (LRA)			Minimum Amperes	Maximum Amperes	Face Area Sq. Ft. [m <sup>2</sup> ]	No. Rows	CFM [L/s]		Net Lbs. [kg]	Shipping Lbs. [kg]
13022A18J	1-60-208/230	7.7/7.7	40.3	1.0	11/11	15/15	15/15	8.43 [0.78]	1	1900 [897]	67 [1899]	150 [68.0]	158 [71.7]
13022A24J	1-60-208/230	10.4/10.4	54	0.6	14/14	20/20	20/20	11.06 [1.03]	1	1700 [802]	77 [2183]	155 [70.3]	163 [73.9]
13022A30J	1-60-208/230	14.1/14.1	68	0.8	19/19	25/25	30/30	13.72 [1.27]	1	2325 [1097]	98 [2778]	175 [79.4]	185 [83.9]
13022A36J	1-60-208/230	14.4/14.4	78	0.8	19/19	25/25	30/30	16.39 [1.52]	1	2800 [1321]	108 [3062]	200 [90.7]	212 [96.2]
13022A42J	1-60-208/230	19.2/19.2	105	0.8	25/25	30/30	40/40	16.39 [1.52]	1	2800 [1321]	121 [3430]	205 [93.0]	217 [98.4]
13022A48J	1-60-208/230	21.1/21.1	115	1.2	28/28	35/35	45/45	16.39 [1.52]	1	3300 [1557]	123 [3487]	210 [95.3]	222 [100.7]
13022A60J	1-60-208/230	25.3/25.3	150	1.2	33/33	40/40	50/50	21.85 [2.03]	1	3575 [1687]	191 [5415]	247 [112]	258 [117]

Model Number RCU	ELECTRICAL							PHYSICAL					
	Phase Frequency (Hz) Voltage (Volts)	Compressor		Fan Motor Full Load Amperes (FLA)	Minimum Circuit Ampacity Amperes	Fuse or HACR Circuit Breaker		Outdoor Coil			Refrigerant Per Circuit* Oz. [g]	Weight	
		Rated Load Amperes (RLA)	Locked Rotor Amperes (LRA)			Minimum Amperes	Maximum Amperes	Face Area Sq. Ft. [m <sup>2</sup> ]	No. Rows	CFM [L/s]		Net Lbs. [kg]	Shipping Lbs. [kg]
13022A36C	3-60-208/230	10.3	88	0.8	14/14	20/20	20/20	11.06 [1.03]	1	2800 [1321]	108 [3062]	184.5 [83.7]	196.5 [89.1]
13022A42C	3-60-208/230	13.5	89	0.8	18/18	25/25	30/30	13.72 [1.27]	1	2800 [1321]	121 [3430]	178.5 [80.9]	190.5 [86.4]
13022A48C	3-60-208/230	14.1	95	1.2	19/19	25/25	30/30	16.39 [1.52]	1	3300 [1557]	123 [3487]	184 [83.5]	196 [88.9]
13022A60C	3-60-208/230	17.3	123	1.2	23/23	30/30	40/40	21.85 [2.03]	1	3575 [1687]	191 [5415]	228.5 [103.6]	239.5 [108.6]

Model Number RCU	ELECTRICAL							PHYSICAL					
	Phase Frequency (Hz) Voltage (Volts)	Compressor		Fan Motor Full Load Amperes (FLA)	Minimum Circuit Ampacity Amperes	Fuse or HACR Circuit Breaker		Outdoor Coil			Refrigerant Per Circuit* Oz. [g]	Weight	
		Rated Load Amperes (RLA)	Locked Rotor Amperes (LRA)			Minimum Amperes	Maximum Amperes	Face Area Sq. Ft. [m <sup>2</sup> ]	No. Rows	CFM [L/s]		Net Lbs. [kg]	Shipping Lbs. [kg]
13022A36D	3-60-460	5.8	45	0.4	8	15	15	21.85 [2.03]	2	2800 [1321]	108 [3062]	194 [88.0]	206 [93.4]
13022A42D	3-60-460	6.4	45	0.4	9	15	15	21.85 [2.03]	2	2800 [1321]	121 [3430]	184 [83.5]	196 [88.9]
13022A48D	3-60-460	7.1	45	0.6	10	15	15	21.85 [2.03]	2	3300 [1557]	123 [3487]	188 [85.3]	200 [90.7]
13022A60D	3-60-460	8.4	70	0.6	12	15	15	21.85 [2.03]	2	3575 [1687]	191 [5415]	241 [109.3]	252 [114.3]

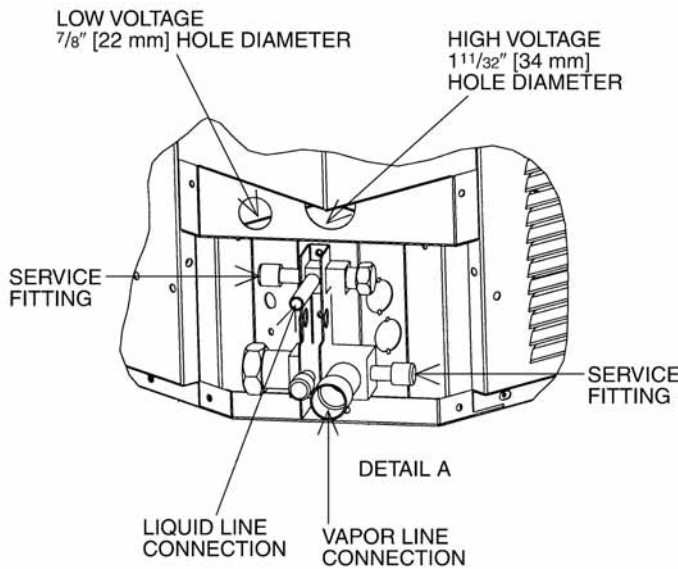
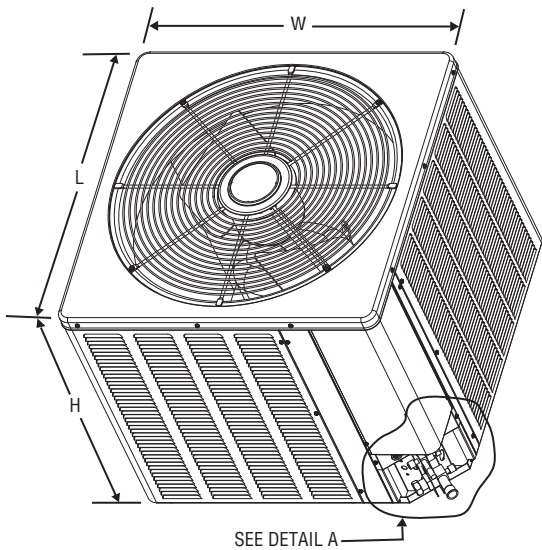
NOTE: Refrigerant charge shown is for 15 feet of standard line set. Units are shipped with a nitrogen holding charge and must be charged with R-22 in the field.

[ ] Designates Metric Conversions

# Unit Dimensions

Model No. RCU13022A	Unit Dimensions		
	Width "W" Inches	Length "L" Inches	Height "H" Inches
18, 24	23 <sup>5</sup> / <sub>8</sub> [600]	23 <sup>5</sup> / <sub>8</sub> [600]	24 <sup>1</sup> / <sub>4</sub> [616]
30	27 <sup>5</sup> / <sub>8</sub> [702]	27 <sup>5</sup> / <sub>8</sub> [702]	24 <sup>1</sup> / <sub>4</sub> [616]
36, 42, 48	31 <sup>5</sup> / <sub>8</sub> [803]	31 <sup>5</sup> / <sub>8</sub> [803]	27 <sup>15</sup> / <sub>16</sub> [710]
60	31 <sup>5</sup> / <sub>8</sub> [803]	31 <sup>5</sup> / <sub>8</sub> [803]	35 <sup>15</sup> / <sub>16</sub> [913]

[ ] Designates Metric Conversions



# Condensing Unit Refrigerant Line Size Information

System Capacity	Liquid Line Connection Size (Inch I.D.)	Line Size (Inch O.D.) [mm]	Liquid Line Size – Outdoor Unit Above Indoor Coil (Cooling Only—Does not apply to Heat Pumps)						Liquid Line Size – Outdoor Unit Below Indoor Coil (Cooling Only)					
			Total Equivalent Length—Feet [m]						Total Equivalent Length—Feet [m]					
			25 [7.62]	50 [15.24]	75 [22.86]	100 [30.48]	125 [38.10]	150 [45.72]	25 [7.62]	50 [15.24]	75 [22.86]	100 [30.48]	125 [38.10]	150 [45.72]
			Minimum Vertical Separation—Feet [m]						Maximum Vertical Separation—Feet [m]					
1½ Ton	3/8" [9.53]	1/4 [6.35]	0 ①	0 ①	5 [1.52]	18 [5.49]	31 [9.45]	44 [13.41]	21 [6.40]	8 [2.44]	N/A	N/A	N/A	N/A
		5/16 [7.94]	0 ①	0 ①	0 ①	0 ①	0 ①	0 ①	25 [7.62]	27 [8.23]	24 [7.32]	21 [6.40]	17 [5.18]	14 [4.27]
		3/8* [9.53]	0 ①	0 ①	0 ①	0 ①	0 ①	0 ①	25 [7.62]	40 [12.19]	39 [11.89]	38 [11.58]	37 [11.28]	35 [10.67]
2 Ton	3/8" [9.53]	1/4 [6.35]	0 ①	5 [1.52]	27 [8.23]	48 [14.63]	69 [21.03]	91 [27.74]	16 [4.88]	N/A	N/A	N/A	N/A	N/A
		5/16 [7.94]	0 ①	0 ①	0 ①	0 ①	0 ①	0 ①	25 [7.62]	26 [7.92]	21 [6.40]	15 [4.57]	10 [3.05]	5 [1.52]
		3/8* [9.53]	0 ①	0 ①	0 ①	0 ①	0 ①	0 ①	25 [7.62]	38 [11.58]	36 [10.97]	35 [10.67]	33 [10.06]	31 [9.45]
2½ Ton	3/8" [9.53]	1/4 [6.35]	0 ①	34 [10.36]	69 [21.03]	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A	N/A
		5/16 [7.94]	0 ①	0 ①	0 ①	0 ①	9 [2.74]	18 [5.49]	25 [7.62]	17 [5.18]	8 [2.44]	0	N/A	N/A
		3/8* [9.53]	0 ①	0 ①	0 ①	0 ①	0 ①	0 ①	25 [7.62]	37 [11.28]	34 [10.36]	31 [9.45]	29 [8.84]	26 [7.92]
3 Ton	3/8" [9.53]	5/16 [7.94]	0 ①	0 ①	0 ①	6 [1.83]	17 [5.18]	28 [8.53]	25 [7.62]	15 [4.57]	4 [1.22]	N/A	N/A	N/A
		3/8* [9.53]	0 ①	0 ①	0 ①	0 ①	0 ①	0 ①	25 [7.62]	30 [9.14]	26 [7.92]	23 [7.01]	19 [5.79]	16 [4.88]
3½ Ton	3/8" [9.53]	5/16 [7.94]	0 ①	0 ①	0 ①	13 [3.96]	28 [8.53]	43 [13.11]	25 [7.62]	17 [5.18]	2 [0.61]	N/A	N/A	N/A
		3/8* [9.53]	0 ①	0 ①	0 ①	0 ①	0 ①	0 ①	25 [7.62]	37 [11.28]	32 [9.75]	28 [8.53]	23 [7.01]	18 [5.49]
4 Ton	3/8" [9.53]	3/8* [9.53]	0 ①	0 ①	0 ①	0 ①	0 ①	0 ①	25 [7.62]	33 [10.06]	27 [8.23]	21 [6.40]	15 [4.57]	9 [2.74]
		1/2 [12.57]	0 ①	0 ①	0 ①	0 ①	0 ①	0 ①	25 [7.62]	43 [13.11]	42 [12.80]	40 [12.19]	39 [11.89]	38 [11.58]
5 Ton	3/8" [9.53]	3/8* [9.53]	0 ①	0 ①	0 ①	0 ①	0 ①	9 [2.74]	25 [7.62]	25 [7.62]	17 [5.18]	8 [2.44]	0	N/A
		1/2 [12.57]	0 ①	0 ①	0 ①	0 ①	0 ①	0 ①	25 [7.62]	39 [11.89]	37 [11.28]	36 [10.97]	34 [10.36]	32 [9.75]

NOTES: \*Standard line size

N/A = Application not recommended.

① The "Minimum Vertical Separation" is the elevation difference between the outdoor unit being above the indoor coil.

A "0" denoted in the table means that there is no elevation requirement (any elevation difference is acceptable).

Suction Line Length/Size versus Capacity Multiplier (R-22)								
Unit Size	1½ Ton	2 Ton	2½ Ton	3 Ton	3½ Ton	4 Ton	5 Ton	
Suction Line Connection Size	3/4" [19.05] I.D.			7/8" [22.23] I.D.				
Suction Line Run—Feet [m]	5/8" [15.88 mm] O.D. Opt. 3/4" [19.05 mm] O.D. Std.*	5/8" [15.88 mm] O.D. Opt. 3/4" [19.05 mm] O.D. Std.* 7/8" [22.23 mm] O.D. Opt.	3/4" [19.05 mm] O.D. Std.* 7/8" [22.23 mm] O.D. Opt.	3/4" [19.05 mm] O.D. Opt. 7/8" [22.23 mm] O.D. Std.*	3/4" [19.05 mm] O.D. Opt. 7/8" [22.23 mm] O.D. Std.* 1 1/8" [28.58 mm] O.D. Opt.	7/8" [22.23 mm] O.D. Opt. 1 1/8" [28.58 mm] O.D. Std.*	1 1/8" [28.58 mm] O.D. Std.*	
25' [7.62]	Optional	.99	.99	.98	.99	.99	.99	.99
	Standard	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	Optional	—	1.00	1.00	—	1.00	—	—
50' [15.24]	Optional	.97	.96	.96	.98	.97	.98	.97
	Standard	.99	.99	.98	.99	.98	.99	.99
	Optional	—	.99	.99	—	1.00	—	—
100' [30.48]	Optional	.94	.92	.94	.95	.93	.95	.95
	Standard	.96	.96	.96	.96	.96	.98	.98
	Optional	—	.97	.97	—	.98	—	—
150' [45.72]	Optional	.90	.89	.92	.93	.92	.93	.93
	Standard	.93	.93	.93	.94	.94	.96	.96
	Optional	—	.95	.95	—	.96	—	—

NOTES: \*Standard line size

Using suction line larger than shown in chart will result in poor oil return and is not recommended.

[ ] Designates Metric Conversions

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

## GENERAL TERMS OF LIMITED WARRANTY\*

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

Parts .....Five (5) Years

\*For Complete Details of the Limited Warranty, Including Applicable Terms and Conditions, See Your Local Installer or Contact the Manufacturer for a Copy.

## NOTES

## NOTES

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

**Sure Comfort™**  
P.O. Box 17010, Fort Smith, AR 72917



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