



Featuring
New Industry Standard
R-410A Refrigerant

R-410A



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
- Bi-Directional Filter Drier (shipped – not installed)

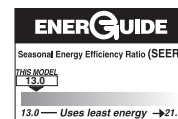
Applications

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-A07)
- High Pressure Control (RXAB-A07)
- Low Ambient Control (RXAD-A07)
- Compressor Time Delay Control
- Crankcase Heater
- Sound Enclosure

RCU13410A SERIES



Model Number Identification

<u>RCU</u>	<u>13</u>	<u>410</u>	<u>A</u>	<u>18</u>	<u>J</u>
<u>Product Classification</u>	<u>Efficiency</u>	<u>Refrigerant</u>	<u>Design Series</u>	<u>Nominal Cooling Capacity</u>	<u>Voltage</u>
Remote Condensing Unit	13 = 13 = 13 Seer	410 = R-410A	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 = 208-230 Single Phase

Performance Data @ ARI 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		
Rev. 7/29/09 13410A18J	RCFL-H*2417 ①	18,500 [5.4]	13,400 [3.9]	5,100 [1.5]	11.40	13.00	74	650 [307]
	-F902U045CS36 (RCFL-A*2417)	18,600 [5.4]	13,250 [3.9]	5,350 [1.6]	12.00	14.50	74	575 [271]
	-F902U060CS36 (RCFL-A*2417)	18,800 [5.5]	13,450 [3.9]	5,350 [1.6]	12.00	14.50	74	600 [283]
	-F902U075CS36 (RCFL-A*2417)	18,900 [5.5]	13,700 [4.0]	5,200 [1.5]	12.00	14.50	74	625 [295]
	RCFL-H*2414	18,500 [5.4]	13,400 [3.9]	5,100 [1.5]	11.40	13.00	74	650 [307]
	-F902U045CS36 (RCFL-H*2417)	18,600 [5.4]	13,250 [3.9]	5,350 [1.6]	12.00	14.50	74	575 [271]
	-F902U060CS36 (RCFL-H*2417)	18,800 [5.5]	13,450 [3.9]	5,350 [1.6]	12.00	14.50	74	600 [283]
	-F902U075CS36 (RCFL-H*2417)	18,900 [5.5]	13,700 [4.0]	5,200 [1.5]	12.00	14.50	74	625 [295]
	-F902U045CS36 (RCHL-24A2)	18,500 [5.4]	12,750 [3.7]	5,750 [1.7]	12.00	14.50	74	575 [271]
	-F902U060CS36 (RCHL-24A2)	18,500 [5.4]	12,750 [3.7]	5,750 [1.7]	12.00	14.50	74	600 [283]
	-F902U075CS36 (RCHL-24A2)	18,400 [5.4]	12,650 [3.7]	5,750 [1.7]	12.00	14.50	74	625 [295]
	AH410X13A1724JM (RCSL-H*2417)	18,800 [5.5]	13,600 [4.0]	5,200 [1.5]	12.70	14.00	74	600 [283]
	AH410PSCA1718JM (RCSL-H*2417)	18,500 [5.4]	13,400 [3.9]	5,100 [1.5]	11.85	13.00	74	600 [283]
13410A24J	RCFL-H*2417 ①	24,200 [7.1]	17,450 [5.1]	6,750 [2.0]	11.15	13.00	74	800 [378]
	-F902U045CS36 (RCFL-A*2417)	24,400 [7.1]	17,550 [5.1]	6,850 [2.0]	11.50	14.00	74	800 [378]
	-F902U060CS36 (RCFL-A*2417)	24,400 [7.1]	17,550 [5.1]	6,850 [2.0]	11.50	14.00	74	825 [389]
	-F902U075CS36 (RCFL-A*2417)	24,600 [7.2]	17,950 [5.3]	6,650 [1.9]	11.00	13.50	74	850 [401]
	RCFL-H*2414	24,200 [7.1]	17,450 [5.1]	6,750 [2.0]	11.15	13.00	74	800 [378]
	-F902U045CS36 (RCFL-H*2417)	24,400 [7.1]	17,550 [5.1]	6,850 [2.0]	11.50	14.00	74	800 [378]
	-F902U060CS36 (RCFL-H*2417)	24,400 [7.1]	17,550 [5.1]	6,850 [2.0]	11.50	14.00	74	825 [389]
	-F902U075CS36 (RCFL-H*2417)	24,600 [7.2]	17,950 [5.3]	6,650 [1.9]	11.00	13.50	74	850 [401]
	-F902U045CS36 (RCHL-24A2)	23,600 [6.9]	16,500 [4.8]	7,100 [2.1]	11.50	14.00	74	800 [378]
	-F902U060CS36 (RCHL-24A2)	23,600 [6.9]	16,500 [4.8]	7,100 [2.1]	11.50	14.00	74	825 [389]
	-F902U075CS36 (RCHL-24A2)	23,600 [6.9]	16,650 [4.9]	6,950 [2.0]	11.00	14.00	74	850 [401]
	AH410X13A1724JM (RCSL-H*2417)	24,800 [7.3]	17,850 [5.2]	6,950 [2.0]	12.60	14.00	74	775 [366]
	AH410PSCA1724JM (RCSL-H*2417)	24,200 [7.1]	17,500 [5.1]	6,700 [2.0]	11.45	13.00	74	800 [378]
13410A30J	RCFL-H*3617 ①	29,600 [8.7]	22,500 [6.6]	7,100 [2.1]	11.55	13.00	73	1,000 [472]
	-F902U060CS36 (RCFL-A*3617)	29,800 [8.7]	22,650 [6.6]	7,150 [2.1]	11.50	14.00	73	1,000 [472]
	-F902U075CS36 (RCFL-A*3617)	29,200 [8.6]	21,450 [6.3]	7,750 [2.3]	11.50	14.00	73	850 [401]
	-F902U075CS36 (RCFL-A*3621)	29,400 [8.6]	21,650 [6.3]	7,750 [2.3]	11.50	14.00	73	850 [401]
	-F902U075CW48 (RCFL-A*3621)	29,800 [8.7]	22,650 [6.6]	7,150 [2.1]	11.00	13.50	73	975 [460]
	-F902U060CS36 (RCFL-H*3617)	29,800 [8.7]	22,650 [6.6]	7,150 [2.1]	11.50	14.00	73	1,000 [472]
	-F902U075CS36 (RCFL-H*3617)	29,200 [8.6]	21,450 [6.3]	7,750 [2.3]	11.50	14.00	73	850 [401]
	RCFL-H*3621	29,600 [8.7]	22,500 [6.6]	7,100 [2.1]	11.55	13.00	73	1,000 [472]
	-F902U075CS36 (RCFL-H*3621)	29,400 [8.6]	21,650 [6.3]	7,750 [2.3]	11.50	14.00	73	850 [401]
	-F902U075CW48 (RCFL-H*3621)	29,800 [8.7]	22,650 [6.6]	7,150 [2.1]	11.00	13.50	73	975 [460]
	-F902U045CS36 (RCHL-36A1)	28,400 [8.3]	20,950 [6.1]	7,450 [2.2]	11.00	13.50	73	1,025 [484]
	-F902U060CS36 (RCHL-36A1)	28,400 [8.3]	20,950 [6.1]	7,450 [2.2]	11.00	13.50	73	1,000 [472]
	-F902U075CS36 (RCHL-36A1)	28,200 [8.3]	20,800 [6.1]	7,400 [2.2]	11.00	13.00	73	1,025 [484]
	-F902U075CW48 (RCHL-36A1)	28,400 [8.3]	20,950 [6.1]	7,450 [2.2]	11.00	13.50	73	975 [460]
	AH410X13A1736JM (RCSL-H*3617)	30,200 [8.8]	23,050 [6.8]	7,150 [2.1]	12.70	14.00	73	1,000 [472]
	AH410PSCA1730JM (RCSL-H*3617)	29,600 [8.7]	22,550 [6.6]	7,050 [2.1]	11.90	13.00	73	950 [448]

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

[] Designates Metric Conversions

Performance Data @ ARI Standard Conditions—Cooling (con't.)

[illegible]

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

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Electrical and Physical Data

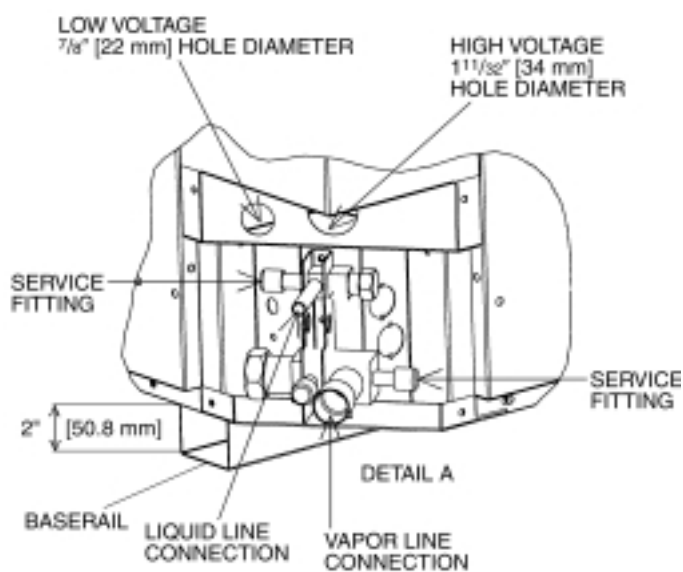
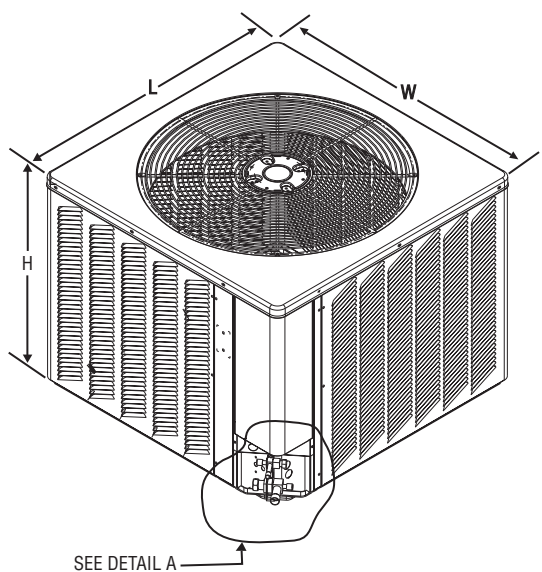
Model Number RCU	ELECTRICAL							PHYSICAL					
	Phase Frequency [HZ] Voltage [Volts]	Compressor		Fan Motor Full Load Amperes (FLA)	Minimum Circuit Ampacity Amperes	Fuse or HACR Circuit Breaker		Outdoor Coil			Refrigerant Per Circuit Oz. [g]	Weight	
		Rated Load Amperes (RLA)	Locked Rotor Amperes (LRA)			Minimum Amperes	Maximum Amperes	Face Area Sq. Ft. [m²]	No. Rows	CFM [L/s]		Net Lbs. [kg]	Shipping Lbs. [kg]
Rev. 7/29/09													
13410A18J	1-60-208/230	9/9	48	0.6	12/12	15/15	20/20	11.06 [1.03]	1	1645 [776]	77 [2183]	127 [57.6]	135 [61.2]
13410A24J	1-60-208/230	12.8/12.8	58.3	0.6	17/17	20/20	25/25	11.06 [1.03]	1	1700 [802]	77 [2183]	126 [57.2]	134 [60.8]
13410A30J	1-60-208/230	14.1/14.1	73	0.8	19/19	25/25	30/30	13.72 [1.27]	1	2370 [1118]	95 [2693]	144 [65.3]	154 [69.9]
13410A36J	1-60-208/230	17/17	96.7	0.8	23/23	30/30	35/35	16.39 [1.52]	1	2805 [1324]	106 [3005]	186 [84.4]	198 [89.8]
13410A42J	1-60-208/230	21.8/21.8	112	1.2	29/29	35/35	50/50	16.39 [1.52]	1	3295 [1555]	118 [3345]	183 [83]	195 [88.5]
13410A48J	1-60-208/230	21.8/21.8	117	1.2	29/29	35/35	50/50	21.85 [2.03]	1	3295 [1555]	149 [4224]	222 [100.7]	233 [105.7]
13410A60J	1-60-208/230	26.4/26.4	134	1.2	35/35	45/45	60/60	21.85 [2.03]	1	3570 [1685]	176 [4990]	223 [101.2]	234 [106.1]

NOTE: Factory Refrigerant Charge includes refrigerant for 15 feet of standard line set.

Unit Dimensions

Model No. RCU13410A	Unit Dimensions		
	Width "W" Inches	Length "L" Inches	Height "H" Inches
18, 24	23 ⁵ / ₈ [600]	23 ⁵ / ₈ [600]	24 ¹ / ₄ [616]
30	27 ⁵ / ₈ [702]	27 ⁵ / ₈ [702]	24 ¹ / ₄ [616]
36, 42	31 ⁵ / ₈ [803]	31 ⁵ / ₈ [803]	27 ¹⁵ / ₁₆ [710]
48, 60	31 ⁵ / ₈ [803]	31 ⁵ / ₈ [803]	35 ¹⁵ / ₁₆ [913]

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Condensing Unit Refrigerant Line Size Information

Liquid Line Sizing (R-410A)														
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					
			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	0	0	0	8 [2.44]	24 [7.32]	25 [7.62]	40 [12.19]	25 [7.62]	9 [2.74]	N/A	N/A
		5/16 [7.94]	0	0	0	0	0	0	25 [7.62]	50 [15.24]	62 [18.90]	58 [17.68]	53 [16.15]	49 [14.94]
		3/8* [9.53]	0	0	0	0	0	0	25 [7.62]	50 [15.24]	75 [22.86]	72 [21.95]	70 [21.34]	68 [20.73]
2 Ton	3/8″ [9.53]	1/4 [6.35]	0	3 [0.91]	29 [8.84]	55 [16.76]	81 [24.69]	108 [32.92]	23 [7.01]	N/A	N/A	N/A	N/A	N/A
		5/16 [7.94]	0	0	0	0	0	0	25 [7.62]	36 [10.97]	29 [8.84]	23 [7.01]	16 [4.88]	9 [2.74]
		3/8* [9.53]	0	0	0	0	0	0	25 [7.62]	50 [15.24]	72 [21.95]	70 [21.34]	68 [20.73]	65 [19.81]
2½ Ton	3/8″ [9.53]	1/4 [6.35]	0	14 [4.27]	56 [17.07]	98 [29.87]	N/A	N/A	25 [7.62]	N/A	N/A	N/A	N/A	N/A
		5/16 [7.94]	0	0	0	0	0	0	25 [7.62]	49 [14.94]	38 [11.58]	27 [8.23]	17 [5.18]	6 [1.83]
		3/8* [9.53]	0	0	0	0	0	0	25 [7.62]	50 [15.24]	68 [20.73]	65 [19.81]	62 [18.90]	58 [17.68]
3 Ton	3/8″ [9.53]	5/16 [7.94]	0	0	0	0	0	9 [2.74]	25 [7.62]	50 [15.24]	37 [11.28]	22 [6.71]	7 [2.13]	N/A
		3/8* [9.53]	0	0	0	0	0	0	25 [7.62]	50 [15.24]	68 [20.73]	63 [19.20]	58 [17.68]	53 [16.15]
3½ Ton	3/8″ [9.53]	5/16 [7.94]	0	0	0	16 [4.88]	35 [10.67]	54 [16.46]	25 [7.62]	23 [7.01]	4 [1.22]	N/A	N/A	N/A
		3/8* [9.53]	0	0	0	0	0	0	25 [7.62]	50 [15.24]	43 [13.11]	36 [10.97]	30 [9.14]	24 [7.32]
4 Ton	3/8″ [9.53]	3/8* [9.53]	0	0	0	0	0	0	25 [7.62]	46 [14.02]	38 [11.58]	30 [9.14]	22 [6.71]	15 [4.57]
		1/2 [12.57]	0	0	0	0	0	0	25 [7.62]	50 [15.24]	56 [17.07]	55 [16.76]	53 [16.15]	52 [15.85]
5 Ton	3/8″ [9.53]	3/8* [9.53]	0	0	0	0	0	0	25 [7.62]	50 [15.24]	56 [17.07]	44 [13.41]	32 [9.75]	20 [6.10]
		1/2 [12.57]	0	0	0	0	0	0	25 [7.62]	50 [15.24]	75 [22.86]	81 [24.69]	79 [24.08]	76 [23.16]

NOTES: *Standard line size
N/A = Application not recommended.

Suction Line Length/Size versus Capacity Multiplier (R-410A)									
Unit Size		1½ Ton	2 Ton	2½ Ton		3 Ton	3½ Ton	4 Ton	5 Ton
Suction Line Connection Size		¾" [19.05] I.D.				7/8" [22.23] I.D.			
Suction Line Run—Feet [m]		5/8" [15.88 mm] O.D. Optional ¾" [19.05 mm] O.D. Standard*		5/8" [15.88 mm] O.D. Optional ¾" [19.05 mm] O.D. Standard* 7/8" [22.23 mm] O.D. Optional		¾" [19.05 mm] O.D. Optional 7/8" [22.23 mm] O.D. Standard*		7/8" [22.23 mm] O.D. Optional 1⅛" [28.58 mm] O.D. Standard*	
25' [7.62]	Optional	1.00	1.00	1.00		1.00	1.00	1.00	1.00
	Standard	1.00	1.00	1.00		1.00	1.00	1.00	1.00
	Optional	—	—	1.00		—	—	—	—
50' [15.24]	Optional	.98	.98	.96		.98	.99	.99	.99
	Standard	.99	.99	.98		.99	.99	.99	.99
	Optional	—	—	.99		—	—	—	—
100' [30.48]	Optional	.95	.95	.94		.96	.96	.96	.97
	Standard	.96	.96	.96		.97	.98	.98	.98
	Optional	—	—	.97		—	—	—	—
150' [45.72]	Optional	.92	.92	.91		.94	.94	.95	.94
	Standard	.93	.94	.93		.95	.96	.96	.97
	Optional	—	—	.95		—	—	—	—

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.

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

Condenser Coil leaks caused by
factory defectsFive (5) Years
Conditional Compressor*Ten (10) Years
(Registration Required)
Conditional Parts* (Registration Required).....Ten (10) Years

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."