



14 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

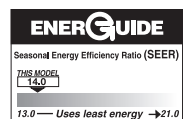
Outdoor condensing unit designed for ground level or rooftop installations. These units offer comfort and dependability for single, multi-family and light commercial applications.

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

TZAA-4 SERIES

Manufactured for
Thermal Zone®
Philadelphia, PA



Model Number Identification

TZ	A	A	—	4	18	2	A
THERMAL ZONE®	A = AIR CONDITIONER	DESIGN SERIES A = 1ST DESIGN	14 SEER	NOMINAL COOLING CAPACITY 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]	VOLTAGE J = 208-230 SINGLE PHASE	CABINET A = FULL METAL JACKET	

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 TZAA-4	Indoor Coil and/or Air Handler	Total Capacity BTU/H [kW]	Net Sensible BTU/H [kW]	Net Latent BTU/H [kW]	EER	SEER		
18	TCFA-H*2417A* ①	18,100 [5.3]	12,850 [3.8]	5,250 [1.5]	12.40	14.00	74	600 [283]
	TCFA-A*2414B*	18,100 [5.3]	12,850 [3.8]	5,250 [1.5]	12.40	14.00	74	600 [283]
	TCFA-A*2417B*	18,100 [5.3]	12,850 [3.8]	5,250 [1.5]	12.40	14.00	74	600 [283]
	TCFA-H*2414A*	18,100 [5.3]	12,850 [3.8]	5,250 [1.5]	12.40	14.00	74	600 [283]
	TZHLA-2417 (TCSA-H*2417A*)	18,600 [5.4]	13,200 [3.9]	5,400 [1.6]	14.00	15.00	74	600 [283]
	TZHSA-1817 (TCSA-H*2417A*)	18,300 [5.4]	13,000 [3.8]	5,300 [1.6]	12.95	14.00	74	600 [283]
	TZHKA-2417 (TCSA-H*2417A*)	18,600 [5.4]	13,400 [3.9]	5,200 [1.5]	14.00	15.00	74	650 [307]
24	TCFA-H*2417A* ①	24,000 [7.0]	16,800 [4.9]	7,200 [2.1]	12.15	14.00	76	750 [354]
	TCFA-A*2414B*	24,000 [7.0]	16,800 [4.9]	7,200 [2.1]	12.15	14.00	76	750 [354]
	TCFA-A*2417B*	24,000 [7.0]	16,800 [4.9]	7,200 [2.1]	12.15	14.00	76	750 [354]
	TCFA-H*2414A*	24,000 [7.0]	16,800 [4.9]	7,200 [2.1]	12.15	14.00	76	750 [354]
	TZHLA-2417 (TCSA-H*2417A*)	24,600 [7.2]	17,200 [5.0]	7,400 [2.2]	13.65	15.00	76	775 [366]
	TZHSA-2417 (TCSA-H*2417A*)	24,400 [7.1]	17,050 [5.0]	7,350 [2.2]	12.50	14.00	76	800 [378]
	TZHKA-2417 (TCSA-H*2417A*)	24,600 [7.2]	17,600 [5.2]	7,000 [2.1]	13.35	15.00	76	850 [401]
30	TCFA-H*3617A* ①	29,600 [8.7]	21,350 [6.3]	8,250 [2.4]	12.25	14.00	76	950 [448]
	TCFA-A*3617B*	29,600 [8.7]	21,350 [6.3]	8,250 [2.4]	12.25	14.00	76	950 [448]
	TCFA-A*3621B*	29,600 [8.7]	21,350 [6.3]	8,250 [2.4]	12.25	14.00	76	950 [448]
	TCFA-H*3621A*	29,600 [8.7]	21,350 [6.3]	8,250 [2.4]	12.25	14.00	76	950 [448]
	TZHLA-3617 (TCSA-H*3617A*)	30,400 [8.9]	21,950 [6.4]	8,450 [2.5]	13.55	15.00	76	1,000 [472]
	TZHSA-3017 (TCSA-H*3617A*)	29,800 [8.7]	21,450 [6.3]	8,350 [2.4]	12.70	14.00	76	950 [448]
	TZHKA-3617 (TCSA-H*3617A*)	30,000 [8.8]	21,650 [6.3]	8,350 [2.4]	13.25	14.50	76	1,025 [484]
36	TCFA-H*4821A* ①	36,200 [10.6]	25,350 [7.4]	10,850 [3.2]	12.30	14.00	76	1,100 [519]
	TCFA-A*4821B*	36,200 [10.6]	25,350 [7.4]	10,850 [3.2]	12.30	14.00	76	1,100 [519]
	TCFA-A*4824B*	36,200 [10.6]	25,350 [7.4]	10,850 [3.2]	12.30	14.00	76	1,100 [519]
	TCFA-H*4824A*	36,200 [10.6]	25,350 [7.4]	10,850 [3.2]	12.30	14.00	76	1,100 [519]
	TZHLA-3617 (TCSA-H*3617A*)	36,200 [10.6]	25,900 [7.6]	10,300 [3.0]	12.90	14.50	76	1,200 [566]
	TZHSA-3617 (TCSA-H*3617A*)	35,400 [10.4]	25,200 [7.4]	10,200 [3.0]	12.20	14.00	76	1,100 [519]
	TZHKA-3617 (TCSA-H*3617A*)	36,200 [10.6]	25,900 [7.6]	10,300 [3.0]	12.80	14.50	76	1,225 [578]
42	TCFA-H*4821A* ①	42,000 [12.3]	30,000 [8.8]	12,000 [3.5]	12.55	14.00	77	1,350 [637]
	TCFA-A*4821B*	42,000 [12.3]	30,000 [8.8]	12,000 [3.5]	12.55	14.00	77	1,350 [637]
	TCFA-A*4824B*	42,000 [12.3]	30,000 [8.8]	12,000 [3.5]	12.55	14.00	77	1,350 [637]
	TCFA-H*4824A*	42,000 [12.3]	30,000 [8.8]	12,000 [3.5]	12.55	14.00	77	1,350 [637]
	TZHLA-4821 (TCSA-H*4821A*)	42,500 [12.5]	30,500 [8.9]	12,000 [3.5]	13.65	15.00	77	1,400 [661]
	TZHSA-4221 (TCSA-H*4821A*)	42,000 [12.3]	29,850 [8.7]	12,150 [3.6]	12.65	14.00	77	1,350 [637]
	TZHKA-4821 (TCSA-H*4821A*)	42,500 [12.5]	30,500 [8.9]	12,000 [3.5]	13.45	15.00	77	1,400 [661]

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

[] Designates Metric Conversions

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 TZAA-4	Indoor Coil and/or Air Handler	Total Capacity BTU/H [kW]	Net Sensible BTU/H [kW]	Net Latent BTU/H [kW]	EER	SEER		
48	TCFA-H*4821A* ①	46,000 [13.5]	32,800 [9.6]	13,200 [3.9]	12.30	14.00	77	1,550 [731]
	TCFA-A*4821B*	46,000 [13.5]	32,800 [9.6]	13,200 [3.9]	12.30	14.00	77	1,550 [731]
	TCFA-A*4824B*	46,000 [13.5]	32,800 [9.6]	13,200 [3.9]	12.30	14.00	77	1,550 [731]
	TCFA-H*4824A*	46,000 [13.5]	32,800 [9.6]	13,200 [3.9]	12.30	14.00	77	1,550 [731]
	TZHLA-4821 (TCSA-H*4821A*)	47,000 [13.8]	33,500 [9.8]	13,500 [4.0]	13.05	14.50	77	1,600 [755]
	TZHSA-4821 (TCSA-H*4821A*)	46,500 [13.6]	33,050 [9.7]	13,450 [3.9]	12.45	14.00	77	1,525 [720]
	TZHKA-4821 (TCSA-H*4821A*)	46,500 [13.6]	33,100 [9.7]	13,400 [3.9]	12.85	14.50	77	1,575 [743]
	TZHLA-4824 (TCSA-H*4824A*)	47,000 [13.8]	33,500 [9.8]	13,500 [4.0]	13.05	14.50	77	1,600 [755]
TZHSA-4824 (TCSA-H*4824A*)	46,500 [13.6]	33,050 [9.7]	13,450 [3.9]	12.45	14.00	77	1,525 [720]	
60	TCFA-H*6024A* ①	54,500 [16.0]	38,900 [11.4]	15,600 [4.6]	12.25	14.00	77	1,700 [802]
	TCFA-A*6024B*	54,500 [16.0]	38,900 [11.4]	15,600 [4.6]	12.25	14.00	77	1,700 [802]
	TZHLA-6024 (TCSA-H*6024A*)	56,000 [16.4]	39,950 [11.7]	16,050 [4.7]	13.10	14.50	77	1,800 [849]
	TZHKA-6024 (TCSA-H*6024A*)	56,000 [16.4]	39,950 [11.7]	16,050 [4.7]	13.05	14.50	77	1,800 [849]

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

[] Designates Metric Conversions

Electrical and Physical Data

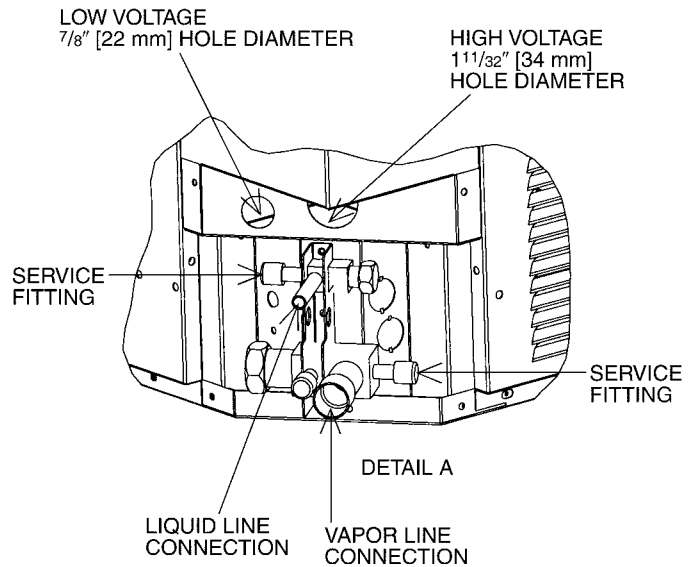
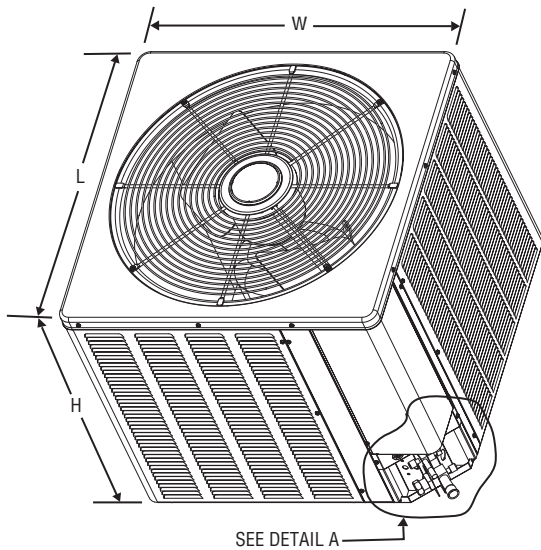
Model Number TZAA-4	ELECTRICAL							PHYSICAL					
	Phase Frequency (HZ) Voltage (Volts)	Compressor		Fan Motor Full Load Amperes (FLA)	Minimum Circuit Ampacity Amperes	Fuse or HACR Circuit Breaker		Outdoor Coil			Refrig. Per Circuit Oz. [g]	Weight	
		Rated Load Amperes (RLA)	Locked Rotor Amperes (LRA)			Minimum Amperes	Maximum Amperes	Face Area Sq. Ft. [m ²]	No. Rows	CFM [L/s]		Net Lbs. [kg]	Shipping Lbs. [kg]
18	1-60-208/230	7.7/7.7	40.3	0.8	11/11	15/15	15/15	13.72 [1.27]	1	2370 [1118]	87 [2466]	158 [71.7]	166 [75.3]
24	1-60-208/230	10.4/10.4	54	0.8	14/14	20/20	20/20	16.39 [1.52]	1	2905 [1371]	96 [2722]	188 [85.3]	196 [88.9]
30	1-60-208/230	14.1/14.1	68	0.8	19/19	25/25	30/30	16.39 [1.52]	1	2805 [1324]	113 [3204]	167 [75.8]	177 [80.3]
36	1-60-208/230	14.4/14.4	78	0.8	19/19	25/25	30/30	21.85 [2.03]	1	2995 [1413]	144 [4082]	190 [86.2]	202 [91.6]
42	1-60-208/230	19.2/19.2	105	1.2	26/26	35/35	40/40	21.85 [2.03]	2	3360 [1586]	237 [6719]	260 [117.9]	272 [123.4]
48	1-60-208/230	19.2/19.2	97	1.2	26/26	35/35	40/40	21.85 [2.03]	2	3360 [1586]	234 [6634]	260 [117.9]	272 [123.4]
60	1-60-208/230	19.9/19.9	137	1.2	27/27	35/35	45/45	21.85 [2.03]	2	3360 [1586]	250 [7088]	263 [119.3]	274 [124.3]

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

Unit Dimensions

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

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Condensing Unit Refrigerant Line Size Information

System Capacity	Line Size 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]					
1 1/2 Ton	3/8" [9.53]	1/4 [6.35]	0 ①	0 ①	0 ①	0 ①	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 ①	0 ①	0 ①	0 ①	0 ①	0 ①	25 [7.62]	50 [15.24]	62 [18.90]	58 [17.68]	53 [16.15]	49 [14.94]
		3/8* [9.53]	0 ①	0 ①	0 ①	0 ①	0 ①	0 ①	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 ①	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 ①	0 ①	0 ①	0 ①	0 ①	0 ①	25 [7.62]	36 [10.97]	29 [8.84]	23 [7.01]	16 [4.88]	9 [2.74]
		3/8* [9.53]	0 ①	0 ①	0 ①	0 ①	0 ①	0 ①	25 [7.62]	50 [15.24]	72 [21.95]	70 [21.34]	68 [20.73]	65 [19.81]
2 1/2 Ton	3/8" [9.53]	1/4 [6.35]	0 ①	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 ①	0 ①	0 ①	0 ①	0 ①	0 ①	25 [7.62]	49 [14.94]	38 [11.58]	27 [8.23]	17 [5.18]	6 [1.83]
		3/8* [9.53]	0 ①	0 ①	0 ①	0 ①	0 ①	0 ①	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 ①	0 ①	0 ①	0 ①	0 ①	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 ①	0 ①	0 ①	0 ①	0 ①	0 ①	25 [7.62]	50 [15.24]	68 [20.73]	63 [19.20]	58 [17.68]	53 [16.15]
3 1/2 Ton	3/8" [9.53]	5/16 [7.94]	0 ①	0 ①	0 ①	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 ①	0 ①	0 ①	0 ①	0 ①	0 ①	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 ①	0 ①	0 ①	0 ①	0 ①	0 ①	25 [7.62]	46 [14.02]	38 [11.58]	30 [9.14]	22 [6.71]	15 [4.57]
		1/2 [12.57]	0 ①	0 ①	0 ①	0 ①	0 ①	0 ①	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 ①	0 ①	0 ①	0 ①	0 ①	0 ①	25 [7.62]	50 [15.24]	56 [17.07]	44 [13.41]	32 [9.75]	20 [6.10]
		1/2 [12.57]	0 ①	0 ①	0 ①	0 ①	0 ①	0 ①	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.
 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-410A)									
Unit Size	1 1/2 Ton	2 Ton	2 1/2 Ton		3 Ton	3 1/2 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. Optional 3/4" [19.05 mm] O.D. Standard*		5/8" [15.88 mm] O.D. Optional 3/4" [19.05 mm] O.D. Standard* 7/8" [22.23 mm] O.D. Optional		3/4" [19.05 mm] O.D. Optional 7/8" [22.23 mm] O.D. Standard*		7/8" [22.23 mm] O.D. Optional 1 1/8" [28.58 mm] O.D. Standard*		
25' [7.62]	Optional Standard Optional	1.00 1.00 —	1.00 1.00 —	1.00 1.00 1.00	1.00 1.00 —	1.00 1.00 —	1.00 1.00 —	1.00 1.00 —	1.00 1.00 —
50' [15.24]	Optional Standard Optional	.98 .99 —	.98 .99 —	.96 .98 .99	.98 .99 —	.99 .99 —	.99 .99 —	.99 .99 —	.99 .99 —
100' [3.48]	Optional Standard Optional	.95 .96 —	.95 .96 —	.94 .96 .97	.96 .97 —	.96 .98 —	.96 .98 —	.96 .98 —	.97 .98 —
150' [45.72]	Optional Standard Optional	.92 .93 —	.92 .94 —	.91 .93 .95	.94 .95 —	.94 .96 —	.95 .96 —	.95 .96 —	.94 .97 —

NOTES: *Standard line size
 Using suction line larger than shown in chart will result in poor oil return and is not recommended.

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

GENERAL TERMS OF LIMITED WARRANTY

Thermal Zone® 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.

Condenser Coil leaks caused by
 factory defects Five (5) Years
 Compressor Seven (7) Years
 Any Other Part..... Five (5) Years

For Complete Details of the Limited Warranty, Including Applicable Terms and Conditions, See the Thermal Zone® Warranty Card.

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.

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