

Featuring
Earth-Friendly
R-410A Refrigerant



14 SEER VALUE SERIES 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
- 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

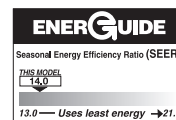
TZAL-4

14 SEER Models
Efficiencies up to 15.5 SEER/14 EER
Nominal Sizes 1 1/2 to 5 Tons
[5.28 kW] to [17.6 kW]

Seven Models

Cooling Capacities
18,500 to 60,500 BTU/HR
[5.42 to 17.73 kW]

Manufactured for
Thermal Zone®
Philadelphia, PA



Model Number Identification

TZ	A	L -	4	18	2	A
THERMAL ZONE®	A = AIR CONDITIONER	DESIGN SERIES R-410A	4 = 14 SEER	NOMINAL COOLING CAPACITY	VOLTAGE	CABINET
				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]	2 = 208-230 SINGLE PHASE	A = FULL METAL CABINET

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 TZAL	Indoor Coil and/or Air Handler	Total Capacity BTU/H [kW]	Net Sensible BTU/H [kW]	Net Latent BTU/H [kW]	EER	SEER		
18	TCFL-H*2417A* ①	19,400 [5.7]	14,100 [4.1]	5,300 [1.6]	12.50	14.00	74	600 [283]
	TCFL-A*2414B*	19,400 [5.7]	14,100 [4.1]	5,300 [1.6]	12.50	14.00	74	600 [283]
	TCFL-A*2417B*	19,400 [5.7]	14,100 [4.1]	5,300 [1.6]	12.50	14.00	74	600 [283]
	TCFL-H*2414A*	19,400 [5.7]	14,100 [4.1]	5,300 [1.6]	12.50	14.00	74	600 [283]
	TZHLL-2417 (TCSL-H*2417A*)	19,800 [5.8]	14,400 [4.2]	5,400 [1.6]	14.00	15.50	74	600 [283]
	TZHSL-1817 (TCSL-H*2417A*)	19,500 [5.7]	14,150 [4.1]	5,350 [1.6]	13.05	14.50	74	600 [283]
	TZHKL-2417 (TCSL-H*2417A*)	19,800 [5.8]	14,500 [4.2]	5,300 [1.6]	14.00	15.50	74	650 [307]
24	TCFL-H*2417A* ①	24,200 [7.1]	17,850 [5.2]	6,350 [1.9]	12.05	14.00	74	800 [378]
	TCFL-A*2414B*	24,200 [7.1]	17,850 [5.2]	6,350 [1.9]	12.05	14.00	74	800 [378]
	TCFL-A*2417B*	24,200 [7.1]	17,850 [5.2]	6,350 [1.9]	12.05	14.00	74	800 [378]
	TCFL-H*2414A*	24,200 [7.1]	17,850 [5.2]	6,350 [1.9]	12.05	14.00	74	800 [378]
	TZHLL-2417 (TCSL-H*2417A*)	24,800 [7.3]	18,300 [5.4]	6,500 [1.9]	13.70	15.50	74	775 [366]
	TZHSL-2417 (TCSL-H*2417A*)	24,200 [7.1]	17,850 [5.2]	6,350 [1.9]	12.45	14.00	74	800 [378]
	TZHKL-2417 (TCSL-H*2417A*)	24,800 [7.3]	18,500 [5.4]	6,300 [1.8]	13.30	15.00	74	850 [401]
30	TCFL-H*3617A* ①	29,800 [8.7]	21,000 [6.2]	8,800 [2.6]	12.05	14.00	76	1,000 [472]
	TCFL-A*3617B*	29,800 [8.7]	21,000 [6.2]	8,800 [2.6]	12.05	14.00	76	1,000 [472]
	TCFL-A*3621B*	29,800 [8.7]	21,000 [6.2]	8,800 [2.6]	12.05	14.00	76	1,000 [472]
	TCFL-H*3617A*	29,800 [8.7]	21,000 [6.2]	8,800 [2.6]	12.05	14.00	76	1,000 [472]
	TZHLL-3617 (TCSL-H*3617A*)	30,400 [8.9]	21,450 [6.3]	8,950 [2.6]	13.30	15.50	76	1,000 [472]
	TZHSL-3017 (TCSL-H*3617A*)	29,600 [8.7]	20,600 [6.0]	9,000 [2.6]	12.35	14.00	76	950 [448]
	TZHKL-3617 (TCSL-H*3617A*)	30,200 [8.8]	21,250 [6.2]	8,950 [2.6]	13.15	15.00	76	1,025 [484]
36	TCFL-H*3617A* ①	35,800 [10.5]	24,400 [7.1]	11,400 [3.3]	12.00	14.00	77	1,050 [495]
	TCFL-A*3617B*	35,800 [10.5]	24,400 [7.1]	11,400 [3.3]	12.00	14.00	77	1,050 [495]
	TCFL-A*3621B*	35,800 [10.5]	24,400 [7.1]	11,400 [3.3]	12.00	14.00	77	1,050 [495]
	TCFL-H*3617A*	35,800 [10.5]	24,400 [7.1]	11,400 [3.3]	12.00	14.00	77	1,050 [495]
	TZHLL-3617 (TCSL-H*3617A*)	37,200 [10.9]	26,300 [7.7]	10,900 [3.2]	12.90	14.50	77	1,200 [566]
	TZHSL-3617 (TCSL-H*3617A*)	36,000 [10.5]	24,850 [7.3]	11,150 [3.3]	12.00	13.50	77	1,100 [519]
	TZHKL-3617 (TCSL-H*3617A*)	36,400 [10.7]	24,800 [7.3]	11,600 [3.4]	13.00	14.50	77	1,025 [484]
42	TCFL-H*4821A* ①	40,500 [11.9]	30,250 [8.9]	10,250 [3.0]	12.00	14.00	77	1,400 [661]
	TCFL-A*4821B*	40,500 [11.9]	30,550 [9.0]	9,950 [2.9]	12.00	14.00	77	1,400 [661]
	TCFL-A*4824B*	40,500 [11.9]	30,550 [9.0]	9,950 [2.9]	12.00	14.00	77	1,400 [661]
	TCFL-H*4824A*	40,500 [11.9]	30,550 [9.0]	9,950 [2.9]	12.00	14.00	77	1,400 [661]
	TZHLL-4821 (TCSL-H*4821A*)	41,000 [12.0]	30,900 [9.1]	10,100 [3.0]	12.85	15.00	77	1,400 [661]
	TZHSL-4221 (TCSL-H*4821A*)	40,000 [11.7]	29,800 [8.7]	10,200 [3.0]	12.00	14.00	77	1,350 [637]
	TZHKL-4821 (TCSL-H*4821A*)	41,000 [12.0]	30,550 [9.0]	10,450 [3.1]	12.80	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 (con't.)

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 TZAL	Indoor Coil and/or Air Handler	Total Capacity BTU/H [kW]	Net Sensible BTU/H [kW]	Net Latent BTU/H [kW]	EER	SEER		
48	TCFL-H*4821A* ①	47,000 [13.8]	34,050 [10.0]	12,950 [3.8]	12.00	14.00	77	1,500 [708]
	TCFL-A*4821B*	47,000 [13.8]	34,050 [10.0]	12,950 [3.8]	12.00	14.00	77	1,500 [708]
	TCFL-A*4824B*	47,000 [13.8]	34,050 [10.0]	12,950 [3.8]	12.00	14.00	77	1,500 [708]
	TCFL-H*4824A*	47,000 [13.8]	34,050 [10.0]	12,950 [3.8]	12.00	14.00	77	1,500 [708]
	TZHL-4821 (TCSL-H*4821A*)	48,000 [14.1]	35,550 [10.4]	12,450 [3.6]	12.50	14.50	77	1,600 [755]
	TZHL-4821 (TCSL-H*4821A*)	47,000 [13.8]	34,000 [10.0]	13,000 [3.8]	12.00	13.50	77	1,525 [720]
	TZHL-4821 (TCSL-H*4821A*)	48,000 [14.1]	35,400 [10.4]	12,600 [3.7]	12.35	14.50	77	1,575 [743]
	TZHL-4824 (TCSL-H*4824A*)	48,500 [14.2]	36,150 [10.6]	12,350 [3.6]	12.85	15.00	77	1,625 [767]
TZHL-4824 (TCSL-H*4824A*)	47,000 [13.8]	34,000 [10.0]	13,000 [3.8]	12.00	13.50	77	1,525 [720]	
60	TCFL-H*6024A* ①	59,000 [17.3]	41,750 [12.2]	17,250 [5.1]	12.00	14.00	77	1,675 [790]
	TCFL-A*6024B*	59,000 [17.3]	41,750 [12.2]	17,250 [5.1]	12.00	14.00	77	1,675 [790]
	TZHL-6024 (TCSL-H*6024A*)	60,500 [17.7]	44,100 [12.9]	16,400 [4.8]	12.65	14.50	77	1,800 [849]
	TZHL-6024 (TCSL-H*6024A*)	60,500 [17.7]	44,100 [12.9]	16,400 [4.8]	12.60	14.50	77	1,800 [849]

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

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Electrical and Physical Data

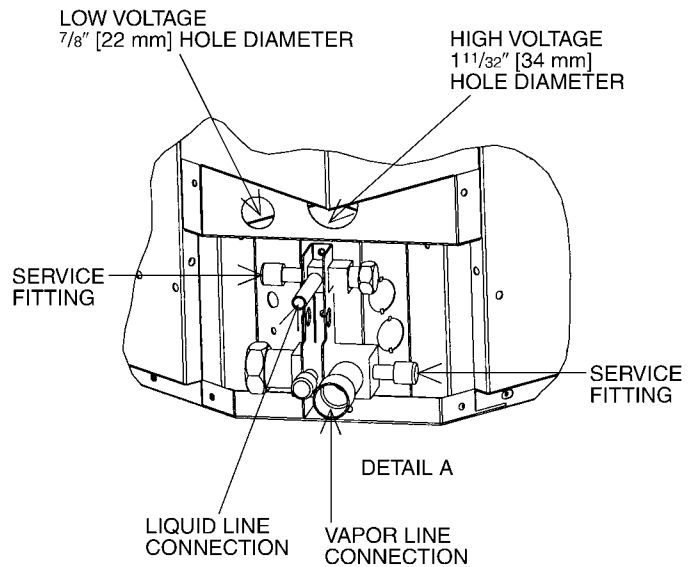
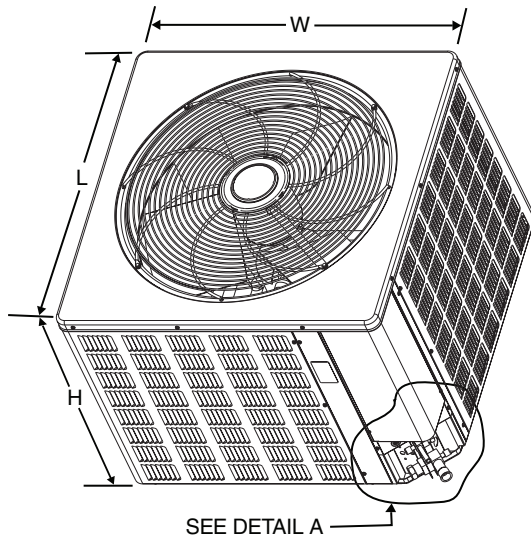
Model No. TZAL	ELECTRICAL							PHYSICAL						
	Phase Frequency [HZ] Voltage [Volts]	Compressor		Fan Motor Full Load Amperes (FLA)	Minimum Circuit Ampacity Amperes	Fuse or HACR Circuit Breaker		Outdoor Coil			Refrigerant Per Circuit Oz. [g]	Weight		
		Rated Load Amperes (RLA)	Locked Rotor Amperes (LRA)			Minimum Amperes	Maximum Amperes	Face Area Sq. Ft. [m ²]	No. Rows	CFM [L/s]		Net Lbs. [kg]	Shipping Lbs. [kg]	
18	1-60-208/230	9/9	48	0.8	13/13	15/15	20/20	13.72 [1.27]	1	2370 [1118]	99.73 [2827]	138.4 [62.8]	154 [69.9]	
24	1-60-208/230	13.5/13.5	58.3	0.8	18/18	25/25	30/30	13.72 [1.27]	1	2370 [1118]	99.09 [2809]	160.1 [72.6]	176 [79.8]	
30	1-60-208/230	14.1/14.1	73	0.8	19/19	25/25	30/30	16.39 [1.52]	1	2805 [1324]	112.53 [3190]	175.4 [79.6]	193 [87.5]	
36	1-60-208/230	17/17	96.7	1.2	23/23	30/30	35/35	21.85 [2.03]	1	3570 [1685]	134.93 [3825]	181.6 [82.4]	202 [91.6]	
42	1-60-208/230	17.9/17.9	112	1.2	24/24	30/30	40/40	21.85 [2.03]	1	3570 [1685]	150.4 [4264]	199.5 [90.5]	221 [100.2]	
48	1-60-208/230	21.8/21.8	117	1.2	29/29	35/35	50/50	21.85 [2.03]	2	3360 [1586]	241.6 [6849]	250.9 [113.8]	274 [124.3]	
60	1-60-208/230	26.4/26.4	134	1.2	35/35	45/45	60/60	21.85 [2.03]	2	3360 [1586]	262.4 [7439]	243.5 [110.5]	272 [123.4]	

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

Unit Dimensions

Model No. TZAL	Unit Dimensions		
	Width "W" Inches [mm]	Length "L" Inches [mm]	Height "H" Inches [mm]
18, 24	27 ⁵ / ₈ [702]	27 ⁵ / ₈ [702]	24 ¹ / ₄ [616]
30	31 ⁵ / ₈ [803]	31 ⁵ / ₈ [803]	27 ³ / ₈ [695]
36, 42, 48, 60	31 ⁵ / ₈ [803]	31 ⁵ / ₈ [803]	35 ³ / ₈ [899]

[] Designates Metric Conversions



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]					
1 1/2 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]
2 1/2 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]
3 1/2 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		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	1.00	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	1.00	
	Optional	—	—	1.00	—	—	—	—	—	
50' [15.24]	Optional	.98	.98	.96	.98	.99	.99	.99	.99	
	Standard	.99	.99	.98	.99	.99	.99	.99	.99	
	Optional	—	—	.99	—	—	—	—	—	
100' [30.48]	Optional	.95	.95	.94	.96	.96	.96	.96	.97	
	Standard	.96	.96	.96	.97	.98	.98	.98	.98	
	Optional	—	—	.97	—	—	—	—	—	
150' [45.72]	Optional	.92	.92	.91	.94	.94	.95	.95	.94	
	Standard	.93	.94	.93	.95	.96	.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

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 defectsFive (5) Years
CompressorSeven (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."