



iC Air Conditioners



TZA14AZ

Cooling Efficiency up to: 15.2 SEER2/12 EER2

Nominal Sizes: 1½ to 5 Ton [5.28 to 17.6 kW]

Cooling Capacities: 17.1 to 55.5 kBTU [5.0 to 16.3 kW]

Manufactured for
Thermal Zone™
Philadelphia, PA



† A.F.U.E. (Annual Fuel Utilization Efficiency) calculated in accordance with Department of Energy test procedures.

****Proper sizing and installation of equipment is critical to achieve optimal performance. Split system air conditioners and heat pumps must be matched with appropriate coil components to meet Energy Star. Ask your Contractor for details or visit www.energystar.gov.***

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Features and Benefits

- **Fully Louvered Steel Cabinet:** Features durable construction to add protection from yard hazards, weather corrosion
- **Optimized 7 mm Coil Design:** Allows for improved airflow, heat transfer and energy consumption
- **Easily Accessible Control Box:** Ease of installation and serviceability

Air Conditioners

<u>TZ</u>	<u>A</u>	<u>14</u>	<u>A</u>	<u>Z</u>	<u>18</u>	<u>A</u>	<u>J</u>	<u>1</u>	<u>N</u>	<u>A</u>
Brand	Product Category	SEER2	Region	Refrigerant	Capacity BTU/HR	Major Series	Voltage	Type	Controls	Minor Series
TZ - Thermal Zone	A - Air Conditioners	14 - 13.8/14.3 SEER2	A - All	Z - R-410A	18 - 18,000 [5.28 kW] 24 - 24,000 [7.03 kW] 30 - 30,000 [8.79 kW] 36 - 36,000 [10.55 kW] 42 - 42,000 [12.31 kW] 48 - 48,000 [14.07 kW] 60 - 60,000 [17.58 kW]	A - 1st Design	J - 208/230/1/60	1 - 1-Stage 2 - 2-Stage	N - Non-Communicating	A - 1st Design

[] Designates Metric Conversions

AVAILABLE MODELS
TZA14AZ18AJ1NA
TZA14AZ24AJ1NA
TZA14AZ30AJ1NA
TZA14AZ36AJ1NA
TZA14AZ42AJ1NA
TZA14AZ48AJ1NA
TZA14AZ60AJ1NA

STANDARD EQUIPMENT
R410-A Refrigerant
Scroll Compressor
Field Installed Filter Drier
Front Seating Service Valves
Internal Pressure Relief Valve
Internal Thermal Overload
Long Line Capability
Low Ambient Cabability with Kit
Optimized Venturi Airflow
Rust Resistant Screws
QR Code
External Gauge Ports

General Data							
GENERAL DATA							
Model No.	TZA14AZ18	TZA14AZ24	TZA14AZ30	TZA14AZ36	TZA14AZ42	TZA14AZ48	TZA14AZ60
Nominal Tonnage	1.5	2.0	2.5	3.0	3.5	4.0	5.0
Valve Connections							
Liquid Line O.D. – in.	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Suction Line O.D. – in.	3/4	3/4	3/4	3/4	7/8	7/8	7/8
Refrigerant (R410A) furnished oz. ¹	94	115	120	124	149	153	203
Compressor Type	Scroll						
Outdoor Coil							
Net face area – Outer Coil	10.9	13.3	14.3	16.4	19.5	19.5	32.5
Net face area – Inner Coil	10.5	12.9	13.9	15.9	18.8	18.8	—
Tube diameter – in.	0.276	0.276	0.276	0.276	0.276	0.276	3/8
Number of rows	2	2	2	2	2	2	1
Fins per inch	24	24	24	24	24	24	22
Outdoor Fan							
Diameter – in.	20	24	24	24	24	24	26
Number of blades	2	2	2	2	3	3	3
Motor hp	1/7	1/6	1/6	1/6	1/5	1/5	1/3
CFM	2156	2723	2830	2991	3655	3655	5178
RPM	1075	825	825	825	850	850	910
watts	152	161	165	145	214	214	271
Shipping weight – lbs.	151	185	171	185	236	228	294
Operating weight – lbs.	144	178	164	178	229	221	287
Electrical Data							
Line Voltage Data (Volts-Phase-Hz)	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60
Maximum overcurrent protection (amps) ²	20	25	30	30	40	40	60
Minimum circuit ampacity ³	14	18	19	20	24	24	40
Compressor							
Rated load amps	9	12	14	13	18	18	26
Locked rotor amps	43	60	68	83	110	102	150
Condenser Fan Motor							
Full load amps	0.8	0.8	0.8	0.8	1.0	1.0	2.8
Locked rotor amps	1.5	1.5	1.7	1.7	2.6	2.6	—

¹Refrigerant charge sufficient for 15 ft. length of refrigerant lines. For longer line set requirements see the installation instructions for information about set length and additional refrigerant charge required.

²HACR type circuit breaker or fuse.

³Refer to National Electrical Code manual to determine wire, fuse and disconnect size requirements.

Accessories

Model No.		TZA14AZ18	TZA14AZ24	TZA14AZ30	TZA14AZ36	TZA14AZ42	TZA14AZ48	TZA14AZ60
Compressor crankcase heater*		44-17402-44	44-17402-44	44-17402-44	44-17402-44	44-17402-45	44-17402-45	44-17402-45
Low ambient control		RXAD-A08	RXAD-A08	RXAD-A08	RXAD-A08	RXAD-A08	RXAD-A08	RXAD-A08
Compressor sound cover		68-23427-26	68-23427-26	68-23427-26	68-23427-26	68-23427-25	68-23427-25	68-23427-25
Compressor hard start kit		SK-A1	SK-A1	SK-A1	SK-A1	SK-A1	SK-A1	SK-A1
Compressor time delay		RXMD-B01	RXMD-B01	RXMD-B01	RXMD-B01	RXMD-B01	RXMD-B01	RXMD-B01
Low pressure control		RXAC-A07	RXAC-A07	RXAC-A07	RXAC-A07	RXAC-A07	RXAC-A07	RXAC-A07
High pressure control		RXAB-A07	RXAB-A07	RXAB-A07	RXAB-A07	RXAB-A07	RXAB-A07	RXAB-A07
Liquid Line Solenoid (24 VAC, 50/60 Hz)	Solenoid Valve	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC
	Solenoid Coil	61-AMG24V	61-AMG24V	61-AMG24V	61-AMG24V	61-AMG24V	61-AMG24V	61-AMG24V
Liquid Line Solenoid (120/240 VAC, 50/60 Hz)	Solenoid Valve	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC
	Solenoid Coil	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V

*Crankcase Heater recommended with Low Ambient Kit.

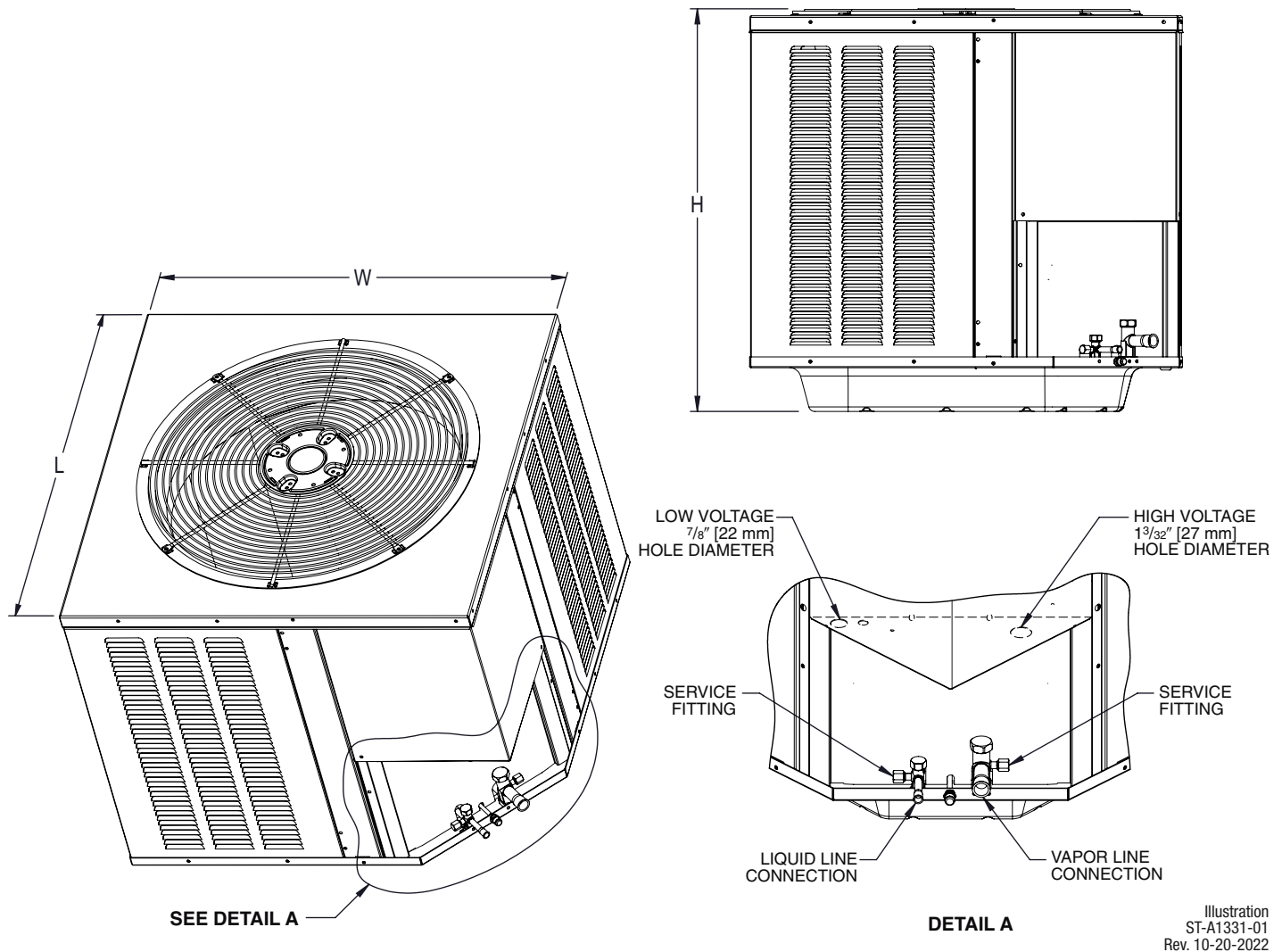
Weighted Sound Power Level (dBA)

Unit Size - Voltage, Series	Standard Rating (dBA)	TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment)						
		125	250	500	1000	2000	4000	8000
TZA14AZ18	70.7	48.2	56.0	61.9	61.0	56.5	53.5	45.7
TZA14AZ24	75.7	46.5	62.0	68.1	64.5	60.8	55.2	48.4
TZA14AZ30	76.8	48.2	62.5	68.8	65.8	62.0	57.2	49.6
TZA14AZ36	76.1	48.4	58.7	67.3	65.5	62.6	58.8	52.1
TZA14AZ42	72.5	46.6	55.3	63.9	62.1	59.4	55.2	48.2
TZA14AZ48	74.0	45.4	55.7	64.2	62.9	60.8	56.7	51.2
TZA14AZ60	75.8	43.4	59.8	67.2	65.5	62.7	59.2	53.1

NOTE: Tested in accordance with AHRI Standard 270-08 (not listed in AHRI)

Unit Dimensions

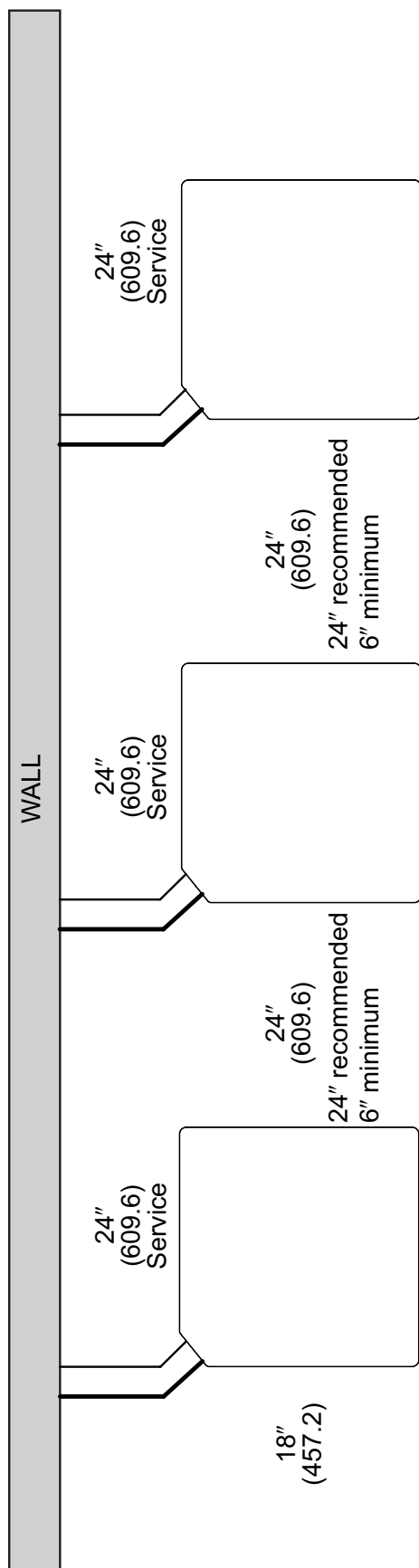
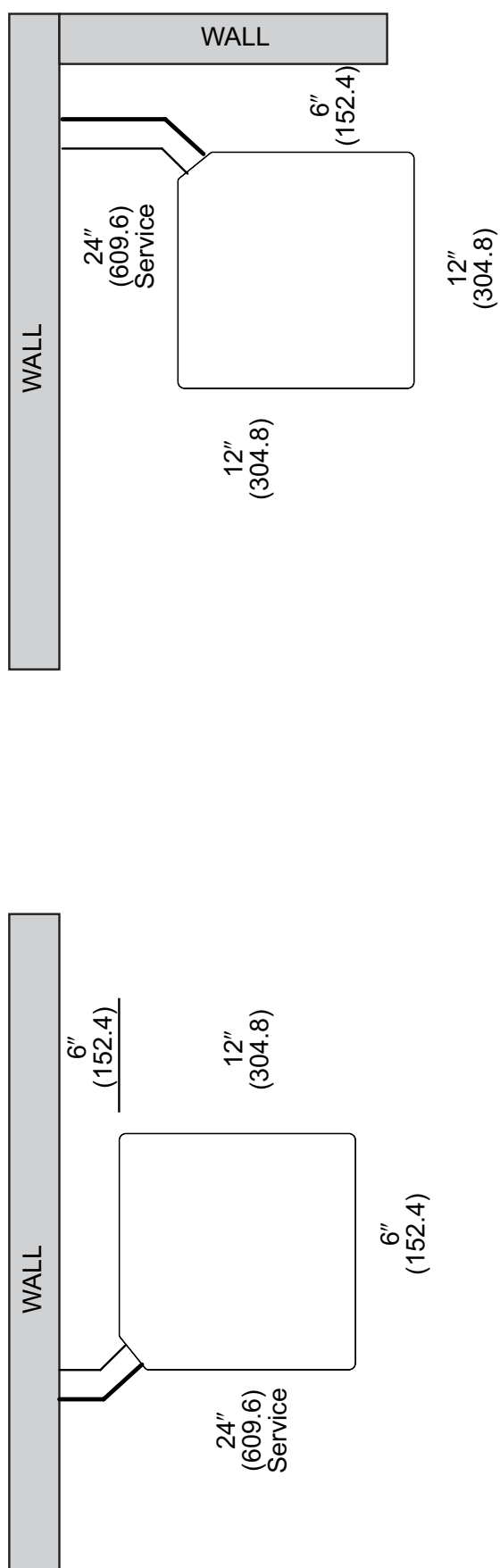
MODEL NO.	OPERATING						SHIPPING							
	H (Height)		L (Length)		W (Width)		H (Height)		L (Length)		W (Width)		OP. WEIGHT LBS.	SHIPPING WEIGHT LBS.
	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm		
TZA14AZ18AJ1NA	25.65	651.51	29.54	750	29.54	750	27.0625	687.3875	32.625	828.675	32.625	828.675	122	143
TZA14AZ24AJ1NA	25.65	651.51	33.66	855	33.66	855	27.0625	687.3875	36.625	930.275	36.625	930.275	141	148
TZA14AZ30AJ1NA	27.65	702.31	33.66	855	33.66	855	29.0625	738.1875	36.625	930.275	36.625	930.275	151	158
TZA14AZ36AJ1NA	31.65	803.91	33.66	855	33.66	855	33.0625	839.7875	36.625	930.275	36.625	930.275	171	178
TZA14AZ42AJ1NA	35.65	905.51	33.66	855	33.66	855	37.0625	941.3875	36.625	930.275	36.625	930.275	200	207
TZA14AZ48AJ1NA	35.65	905.51	33.66	855	33.66	855	37.0625	941.3875	36.625	930.275	36.625	930.275	221	232
TZA14AZ60AJ1NA	51.65	1311.91	35.54	903	35.54	903	53.0625	1347.7875	38.625	981.075	38.625	981.075	261	268



NOTE: Illustrations show the deep drawn basepan.

[] Designates Metric Conversions

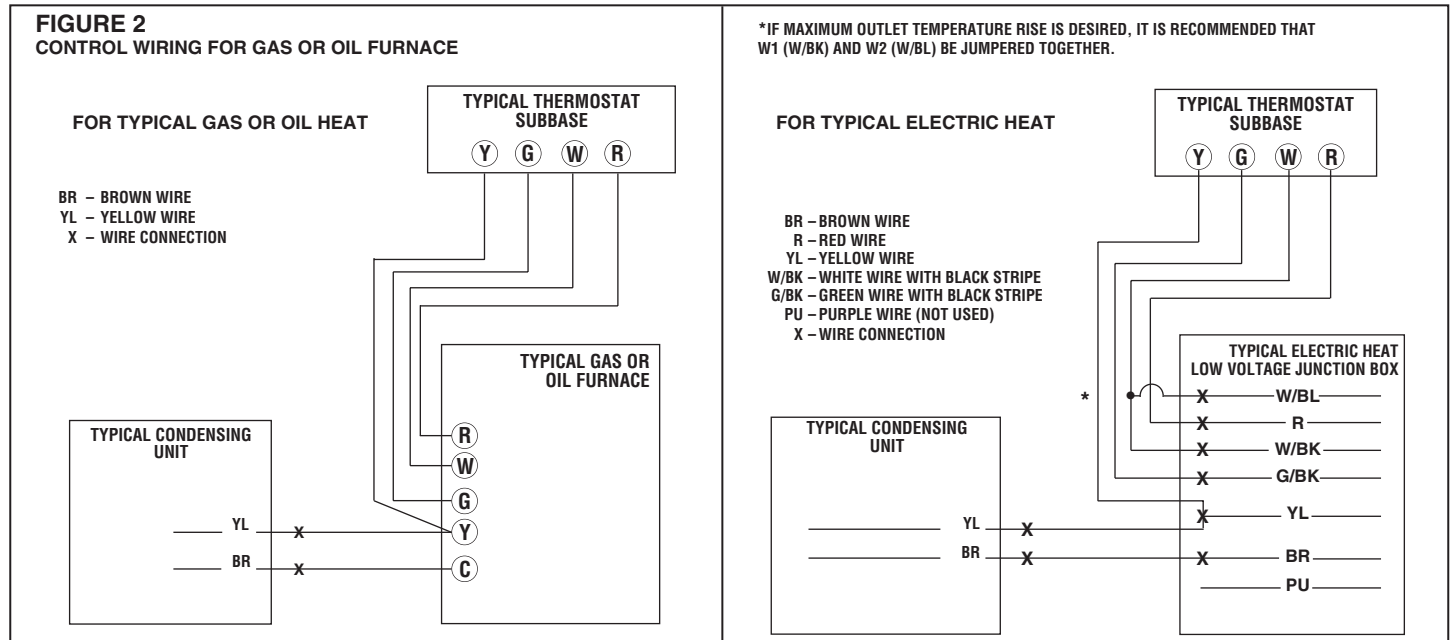
CLEARANCES



NOTE: NUMBERS IN () = mm

IMPORTANT: When installing multiple units in an alcove, roof well or partially enclosed area, ensure there is adequate ventilation to prevent re-circulation of discharge air.

Control Wiring



Application Guidelines

1. Intended for outdoor installation with free air inlet and outlet. Outdoor fan external static pressure available is less than 0.01 -in. wc.
2. Minimum outdoor operation air temperature for cooling mode without low-ambient operation accessory is 55°F (12.8°C).
3. Maximum outdoor operating air temperature is 125°F (51.7°C).
4. For reliable operation, unit should be level in all horizontal planes.
5. Use only copper wire for electric connections at unit. Aluminum and clad aluminum are not acceptable for the type of connector provided.
6. Do not apply capillary tube indoor coils to these units.
7. Factory-supplied filter drier must be installed.

Refrigerant Line Size Information

14.3 SEER2 Single-Stage Air-Conditioners													
Unit Size	Allowable Liquid Line Size	Allowable Suction Line Size	Apply Long Line Guidelines if Linear Line Length Exceeds Those Shown Below (Feet)	Equivalent Length (Feet)									
				< 25	26-50	51-75	76-100	101-125	126-150	151-175	176-200	201-225	226-250
			(-)A14AZ	Maximum Vertical Rise (Outdoor Unit Below Indoor Unit) * / Capacity Multiplier									
1.5 Ton **SEE NOTE 3	1/4"	5/8"	N/A	25 / 1.00	50 / 0.99	62 / 0.98	43 / 0.98	24 / 0.97	5 / 0.97	NR	NR	NR	NR
	5/16"	5/8"	223	25 / 1.00	50 / 0.99	75 / 0.98	98 / 0.98	93 / 0.97	88 / 0.97	83 / 0.96	78 / 0.96	73 / 0.95	68 / 0.94
	3/8"	5/8"	148	25 / 1.00	50 / 0.99	75 / 0.98	100 / 0.98	100 / 0.97	100 / 0.97	100 / 0.96	100 / 0.96	100 / 0.95	100 / 0.94
	1/4"	3/4**	N/A	25 / 1.00	50 / 1.00	62 / 0.99	43 / 0.99	24 / 0.99	5 / 0.99	NR	NR	NR	NR
	5/16"	3/4**	223	25 / 1.00	50 / 1.00	75 / 0.99	98 / 0.99	93 / 0.99	88 / 0.99	83 / 0.99	78 / 0.98	73 / 0.98	68 / 0.98
	3/8"	3/4**	148	25 / 1.00	50 / 1.00	75 / 1.00	100 / 0.99	100 / 0.99	100 / 0.99	100 / 0.99	100 / 0.98	100 / 0.98	100 / 0.98
2 Ton	1/4"	5/8"	N/A	25 / 0.99	50 / 0.98	21 / 0.97	NR	NR	NR	NR	NR	NR	NR
	5/16"	5/8"	213	25 / 0.99	50 / 0.98	75 / 0.97	87 / 0.96	77 / 0.95	69 / 0.94	61 / 0.93	53 / 0.92	45 / 0.91	37 / 0.90
	3/8"	5/8"	142	25 / 0.99	50 / 0.98	75 / 0.97	100 / 0.96	100 / 0.95	100 / 0.94	98 / 0.93	95 / 0.92	92 / 0.91	89 / 0.90
	1/4"	3/4"	N/A	25 / 1.00	50 / 1.00	21 / 0.99	NR	NR	NR	NR	NR	NR	NR
	5/16"	3/4"	213	25 / 1.00	50 / 1.00	75 / 0.99	87 / 0.99	77 / 0.98	69 / 0.98	61 / 0.98	53 / 0.97	45 / 0.97	37 / 0.96
	3/8"	3/4"	142	25 / 1.00	50 / 1.00	75 / 0.99	100 / 0.99	100 / 0.98	100 / 0.98	98 / 0.98	95 / 0.97	93 / 0.97	90 / 0.96
2.5 Ton	5/16"	5/8"	N/A	25 / 0.99	50 / 0.98	75 / 0.96	70 / 0.94	59 / 0.93	48 / 0.91	36 / 0.90	NR	NR	NR
	3/8"	5/8"	117	25 / 0.99	50 / 0.98	75 / 0.96	100 / 0.94	98 / 0.93	94 / 0.91	90 / 0.90	NR	NR	NR
	5/16"	3/4"	175	25 / 1.00	50 / 0.99	75 / 0.99	70 / 0.98	59 / 0.98	48 / 0.97	36 / 0.96	25 / 0.96	13 / 0.95	NR
	3/8"	3/4"	117	25 / 1.00	50 / 0.99	75 / 0.99	100 / 0.98	98 / 0.98	94 / 0.97	90 / 0.96	86 / 0.96	82 / 0.95	78 / 0.95
	5/16"	5/8"	N/A	25 / 0.99	50 / 0.97	66 / 0.94	49 / 0.92	32 / 0.90	NR	NR	NR	NR	NR
	3/8"	5/8"	85	25 / 0.99	50 / 0.97	75 / 0.94	95 / 0.92	89 / 0.90	NR	NR	NR	NR	NR
3 Ton	5/16"	3/4"	128	25 / 1.00	50 / 0.99	66 / 0.98	49 / 0.98	32 / 0.97	15 / 0.96	NR	NR	NR	NR
	3/8"	3/4"	85	25 / 1.00	50 / 0.99	75 / 0.98	95 / 0.98	89 / 0.97	84 / 0.96	78 / 0.95	72 / 0.94	67 / 0.93	61 / 0.93
	1/2"	3/4"	43	25 / 1.00	50 / 0.99	75 / 0.98	100 / 0.98	100 / 0.97	100 / 0.96	100 / 0.95	100 / 0.94	100 / 0.93	100 / 0.93
	5/16"	7/8"	128	25 / 1.00	50 / 1.00	66 / 1.00	49 / 0.99	32 / 0.99	15 / 0.99	NR	NR	NR	NR
	3/8"	7/8"	85	25 / 1.00	50 / 1.00	75 / 1.00	95 / 0.99	89 / 0.99	84 / 0.99	78 / 0.98	72 / 0.98	67 / 0.98	61 / 0.97
	1/2"	7/8"	43	25 / 1.00	50 / 1.00	75 / 1.00	100 / 0.99	100 / 0.99	100 / 0.99	100 / 0.98	100 / 0.98	100 / 0.98	100 / 0.97
3.5 Ton	3/8"	3/4"	102	25 / 0.99	50 / 0.98	75 / 0.97	88 / 0.96	80 / 0.95	72 / 0.94	65 / 0.92	57 / 0.91	49 / 0.90	NR
	1/2"	3/4"	51	25 / 0.99	50 / 0.98	75 / 0.97	100 / 0.96	100 / 0.95	100 / 0.94	100 / 0.92	100 / 0.91	100 / 0.90	NR
	3/8"	7/8"	102	25 / 1.00	50 / 1.00	75 / 0.99	88 / 0.99	80 / 0.99	72 / 0.98	65 / 0.97	57 / 0.97	49 / 0.96	42 / 0.96
	1/2"	7/8"	51	25 / 1.00	50 / 1.00	75 / 0.99	100 / 0.99	100 / 0.99	100 / 0.98	100 / 0.97	100 / 0.97	100 / 0.96	100 / 0.96

NOTES:

- 1) Do not exceed 200 ft linear line length.
- 2) *Do not exceed 100 ft vertical separation if outdoor unit is above indoor unit.
- 3) **3/4" suction line should only be used for 1.5 ton systems if outdoor unit is below or at same level as indoor to assure proper oil return.
- 4) Always use the smallest liquid line allowable to minimize refrigerant charge.
- 5) Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.
- 6) Applications shaded in dark gray are not recommended due to excessive liquid or suction pressure drop.

Refrigerant Line Size Information (Con't.)

14.3 SEER2 Single-Stage Air-Conditioners													
Unit Size	Allowable Liquid Line Size	Allowable Suction Line Size	Apply Long Line Guidelines if Linear Line Length Exceeds Those Shown Below (Feet)	Equivalent Length (Feet)									
				< 25	26-50	51-75	76-100	101-125	126-150	151-175	176-200	201-225	226-250
				Maximum Vertical Rise (Outdoor Unit Below Indoor Unit) * / Capacity Multiplier									
4 Ton	3/8"	3/4"	110	25 / 0.99	50 / 0.98	75 / 0.96	77 / 0.95	67 / 0.93	57 / 0.92	46 / 0.91	NR	NR	NR
	1/2"	3/4"	55	25 / 0.99	50 / 0.98	75 / 0.96	100 / 0.95	100 / 0.93	100 / 0.92	100 / 0.91	NR	NR	NR
	3/8"	7/8"	110	25 / 1.00	50 / 0.99	75 / 0.99	77 / 0.98	67 / 0.97	57 / 0.97	46 / 0.96	36 / 0.96	26 / 0.95	15 / 0.95
	1/2"	7/8"	55	25 / 1.00	50 / 0.99	75 / 0.99	100 / 0.98	100 / 0.97	100 / 0.97	100 / 0.96	100 / 0.96	99 / 0.95	97 / 0.95
5 Ton	3/8"	3/4"	0	25 / 0.99	50 / 0.97	75 / 0.94	61 / 0.92	46 / 0.90	NR	NR	NR	NR	NR
	1/2"	3/4"	0	25 / 0.99	50 / 0.97	75 / 0.94	100 / 0.92	100 / 0.90	NR	NR	NR	NR	NR
	3/8"	7/8"	0	25 / 1.00	50 / 0.99	75 / 0.98	61 / 0.97	46 / 0.96	32 / 0.95	18 / 0.94	NR	NR	NR
	1/2"	7/8"	0	25 / 1.00	50 / 0.99	75 / 0.98	100 / 0.97	100 / 0.96	100 / 0.95	97 / 0.94	95 / 0.94	92 / 0.93	89 / 0.92
	3/8"	1-1/8"	0	25 / 1.01	50 / 1.01	75 / 1.00	61 / 1.00	46 / 0.99	32 / 0.99	18 / 0.99	NR	NR	NR
	1/2"	1-1/8"	0	25 / 1.01	50 / 1.01	75 / 1.00	100 / 1.00	100 / 0.99	100 / 0.99	97 / 0.99	95 / 0.99	92 / 0.99	89 / 0.98

NOTES:

- 1) Do not exceed 200 ft linear line length.
- 2) *Do not exceed 100 ft vertical separation if outdoor unit is above indoor unit.
- 3) **3/4" suction line should only be used for 1.5 ton systems if outdoor unit is below or at same level as indoor to assure proper oil return.
- 4) Always use the smallest liquid line allowable to minimize refrigerant charge.
- 5) Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.
- 6) Applications shaded in dark gray are not recommended due to excessive liquid or suction pressure drop.

Refrigerant Line Size Information (Con't.)

14.3 SEER2 Single-Stage Air-Conditioners													
Unit Size	Allowable Liquid Line Size mm [in.]	Allowable Suction Line Size mm [in.]	Apply Long Line Guidelines if Linear Line Length Exceeds Those Shown Below (Feet)	Equivalent Length (Meters)									
				< 8	8-15	16-23	24-30	31-38	39-46	47-53	54-61	62-69	70-76
			(-)A14AZ	Maximum Vertical Rise (Outdoor Unit Below Indoor Unit) * / Capacity Multiplier									
5.3 KW [1.5 Ton] **SEE NOTE 3	6.35 [1/4]	15.88 [5/8]	N/A	8 / 1.00	15 / 0.99	19 / 0.98	13 / 0.98	7 / 0.97	2 / 0.97	NR	NR	NR	NR
	7.94 [5/16]	15.88 [5/8]	68	8 / 1.00	15 / 0.99	23 / 0.98	30 / 0.98	28 / 0.97	27 / 0.97	25 / 0.96	24 / 0.96	22 / 0.95	21 / 0.94
	9.53 [3/8]	15.88 [5/8]	45	8 / 1.00	15 / 0.99	23 / 0.98	30 / 0.98	30 / 0.97	30 / 0.97	30 / 0.96	30 / 0.96	30 / 0.95	30 / 0.94
	6.35 [1/4]	19.05 [3/4]**	N/A	8 / 1.00	15 / 1.00	19 / 0.99	13 / 0.99	7 / 0.99	2 / 0.99	NR	NR	NR	NR
	7.94 [5/16]	19.05 [3/4]**	68	8 / 1.00	15 / 1.00	23 / 0.99	30 / 0.99	28 / 0.99	27 / 0.99	25 / 0.99	24 / 0.98	22 / 0.98	21 / 0.98
7.0 KW [2 Ton]	9.53 [3/8]	19.05 [3/4]**	Metric	8 / 1.00	15 / 1.00	23 / 0.99	30 / 0.99	30 / 0.99	30 / 0.99	30 / 0.99	30 / 0.99	30 / 0.98	30 / 0.98
	6.35 [1/4]	15.88 [5/8]	N/A	8 / 0.99	15 / 0.98	6 / 0.97	NR	NR	NR	NR	NR	NR	NR
	7.94 [5/16]	15.88 [5/8]	59	8 / 0.99	15 / 0.98	23 / 0.97	27 / 0.96	23 / 0.95	21 / 0.94	19 / 0.93	16 / 0.92	14 / 0.91	11 / 0.90
	9.53 [3/8]	15.88 [5/8]	39	8 / 0.99	15 / 0.98	23 / 0.97	30 / 0.96	30 / 0.95	30 / 0.94	30 / 0.93	29 / 0.92	28 / 0.91	27 / 0.90
	6.35 [1/4]	19.05 [3/4]	N/A	8 / 1.00	15 / 1.00	6 / 0.99	NR	NR	NR	NR	NR	NR	NR
8.8 KW [2.5 Ton]	7.94 [5/16]	19.05 [3/4]	59	8 / 1.00	15 / 1.00	23 / 0.99	27 / 0.99	23 / 0.98	21 / 0.98	19 / 0.98	16 / 0.97	14 / 0.97	11 / 0.96
	9.53 [3/8]	19.05 [3/4]	39	8 / 1.00	15 / 1.00	23 / 0.99	30 / 0.99	30 / 0.98	30 / 0.98	30 / 0.98	29 / 0.97	28 / 0.97	27 / 0.96
	7.94 [5/16]	15.88 [5/8]	N/A	8 / 0.99	15 / 0.98	23 / 0.96	21 / 0.94	18 / 0.93	15 / 0.91	11 / 0.90	NR	NR	NR
	9.53 [3/8]	15.88 [5/8]	36	8 / 0.99	15 / 0.98	23 / 0.96	30 / 0.94	30 / 0.93	29 / 0.91	27 / 0.90	NR	NR	NR
	7.94 [5/16]	19.05 [3/4]	53	8 / 1.00	15 / 0.99	23 / 0.99	21 / 0.98	18 / 0.98	15 / 0.97	11 / 0.96	8 / 0.96	4 / 0.95	NR
10.6 KW [3 Ton]	9.53 [3/8]	19.05 [3/4]	36	8 / 1.00	15 / 0.99	23 / 0.99	30 / 0.98	30 / 0.98	29 / 0.97	27 / 0.96	26 / 0.96	25 / 0.95	24 / 0.95
	7.94 [5/16]	15.88 [5/8]	N/A	8 / 0.99	15 / 0.97	20 / 0.94	15 / 0.92	10 / 0.90	NR	NR	NR	NR	NR
	9.53 [3/8]	15.88 [5/8]	26	8 / 0.99	15 / 0.97	23 / 0.94	29 / 0.92	27 / 0.90	NR	NR	NR	NR	NR
	7.94 [5/16]	19.05 [3/4]	39	8 / 1.00	15 / 0.99	20 / 0.98	15 / 0.98	10 / 0.97	5 / 0.96	NR	NR	NR	NR
	9.53 [3/8]	19.05 [3/4]	26	8 / 1.00	15 / 0.99	23 / 0.98	29 / 0.98	27 / 0.97	26 / 0.96	24 / 0.95	22 / 0.94	20 / 0.93	19 / 0.93
12.3 KW [3.5 Ton]	12.70 [1/2]	19.05 [3/4]	13	8 / 1.00	15 / 0.99	23 / 0.98	30 / 0.98	30 / 0.97	30 / 0.96	30 / 0.95	30 / 0.94	30 / 0.93	30 / 0.93
	7.94 [5/16]	22.23 [7/8]	39	8 / 1.00	15 / 1.00	20 / 1.00	15 / 0.99	10 / 0.99	5 / 0.99	NR	NR	NR	NR
	9.53 [3/8]	22.23 [7/8]	26	8 / 1.00	15 / 1.00	23 / 1.00	29 / 0.99	27 / 0.99	26 / 0.99	24 / 0.98	22 / 0.98	20 / 0.98	19 / 0.97
	12.70 [1/2]	22.23 [7/8]	13	8 / 1.00	15 / 1.00	23 / 1.00	30 / 0.99	30 / 0.99	30 / 0.99	30 / 0.98	30 / 0.98	30 / 0.98	30 / 0.97
	9.53 [3/8]	19.05 [3/4]	31	8 / 0.99	15 / 0.98	23 / 0.97	27 / 0.96	24 / 0.95	22 / 0.94	20 / 0.92	17 / 0.91	15 / 0.90	NR
12.3 KW [3.5 Ton]	12.70 [1/2]	19.05 [3/4]	15	8 / 0.99	15 / 0.98	23 / 0.97	30 / 0.96	30 / 0.95	30 / 0.94	30 / 0.92	30 / 0.91	30 / 0.90	NR
	9.53 [3/8]	22.23 [7/8]	31	8 / 1.00	15 / 1.00	23 / 0.99	27 / 0.99	24 / 0.99	22 / 0.98	20 / 0.97	17 / 0.97	15 / 0.96	13 / 0.96
	12.70 [1/2]	22.23 [7/8]	15	8 / 1.00	15 / 1.00	23 / 0.99	30 / 0.99	30 / 0.99	30 / 0.98	30 / 0.97	30 / 0.97	30 / 0.96	30 / 0.96

NOTES:

1) Do not exceed 200 ft linear line length.

2) *Do not exceed 100 ft vertical separation if outdoor unit is above indoor unit.

3) **3/4" suction line should only be used for 1.5 ton systems if outdoor unit is below or at same level as indoor to assure proper oil return.

4) Always use the smallest liquid line allowable to minimize refrigerant charge.

5) Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.

6) Applications shaded in dark gray are not recommended due to excessive liquid or suction pressure drop.

Refrigerant Line Size Information (Con't.)

14.3 SEER2 Single-Stage Air-Conditioners													
Unit Size	Allowable Liquid Line Size mm [in.]	Allowable Suction Line Size mm [in.]	Apply Long Line Guidelines if Linear Line Length Exceeds Those Shown Below (Feet)	Equivalent Length (Meters)									
				< 8	8-15	16-23	24-30	31-38	39-46	47-53	54-61	62-69	70-76
				Maximum Vertical Rise (Outdoor Unit Below Indoor Unit) * / Capacity Multiplier									
14.1 KW [4 Ton]	9.53 [3/8]	19.05 [3/4]	34	8 / 0.99	15 / 0.98	23 / 0.96	24 / 0.95	20 / 0.93	17 / 0.92	14 / 0.91	NR	NR	NR
	12.7 [1/2]	19.05 [3/4]	17	8 / 0.99	15 / 0.98	23 / 0.96	30 / 0.95	30 / 0.93	30 / 0.92	30 / 0.91	NR	NR	NR
	9.53 [3/8]	22.23 [7/8]	34	8 / 1.00	15 / 0.99	23 / 0.99	24 / 0.98	20 / 0.97	17 / 0.97	14 / 0.96	11 / 0.96	8 / 0.95	5 / 0.95
	12.7 [1/2]	22.23 [7/8]	17	8 / 1.00	15 / 0.99	23 / 0.99	30 / 0.98	30 / 0.97	30 / 0.97	30 / 0.96	30 / 0.96	30 / 0.95	30 / 0.95
17.6 KW [5 Ton]	9.53 [3/8]	19.05 [3/4]	0	8 / 0.99	15 / 0.97	23 / 0.94	19 / 0.92	14 / 0.90	NR	NR	NR	NR	NR
	12.7 [1/2]	19.05 [3/4]	0	8 / 0.99	15 / 0.97	23 / 0.94	30 / 0.92	30 / 0.90	NR	NR	NR	NR	NR
	9.53 [3/8]	22.23 [7/8]	0	8 / 1.00	15 / 0.99	23 / 0.98	19 / 0.97	14 / 0.96	10 / 0.95	5 / 0.94	NR	NR	NR
	12.7 [1/2]	22.23 [7/8]	0	8 / 1.00	15 / 0.99	23 / 0.98	30 / 0.97	30 / 0.96	30 / 0.95	30 / 0.94	29 / 0.94	28 / 0.93	27 / 0.92
	9.53 [3/8]	28.58 [1-1/8]	0	8 / 1.01	15 / 1.01	23 / 1.00	19 / 1.00	14 / 0.99	10 / 0.99	5 / 0.99	NR	NR	NR
	12.7 [1/2]	28.58 [1-1/8]	0	8 / 1.01	15 / 1.01	23 / 1.00	30 / 1.00	30 / 0.99	30 / 0.99	30 / 0.99	29 / 0.99	28 / 0.99	27 / 0.98

NOTES:

- 1) Do not exceed 200 ft linear line length.
- 2) *Do not exceed 100 ft vertical separation if outdoor unit is above indoor unit.
- 3) **3/4" suction line should only be used for 1.5 ton systems if outdoor unit is below or at same level as indoor to assure proper oil return.
- 4) Always use the smallest liquid line allowable to minimize refrigerant charge.
- 5) Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.
- 6) Applications shaded in dark gray are not recommended due to excessive liquid or suction pressure drop.

Performance Data @ AHRI Standard Conditions – Cooling

Designated Tested Combination (DTC)							
Outdoor Unit	Indoor Coil	Total Capacity BTU/H [kW]	Net Sensible BTU/H [kW]	Net Latent BTU/H [kW]	SEER2	EER2	Indoor CFM [L/s]
TZA14AZ18AJ1	TCFZ2417STAN	17600 [5.2]	13500 [4.0]	4100 [1.2]	14.3	11.7	600 [283.2]
TZA14AZ24AJ1	TCFZ2417STAN	22800 [6.7]	17500 [5.1]	5300 [1.6]	14.3	11.7	725 [342.2]
TZA14AZ30AJ1	TCFZ3617STAN	28800 [8.4]	22100 [6.5]	6700 [2.0]	14.3	11.7	900 [424.8]
TZA14AZ36AJ1	TCFZ3617STAN	34200 [10.0]	26200 [7.7]	8000 [2.3]	14.3	11.7	1025 [483.7]
TZA14AZ42AJ1	TCFZ4821STAN	38500 [11.3]	29500 [8.6]	9000 [2.6]	14.3	11.7	1300 [613.5]
TZA14AZ48AJ1	TCFZ4821STAN	45000 [13.2]	34500 [10.1]	10500 [3.1]	13.8	11.2	1425 [672.5]
TZA14AZ60AJ1	TCFZ6024STAN	56000 [16.4]	42900 [12.6]	13100 [3.8]	13.8	11.2	1600 [755.1]

NOTE: This data includes DTC (Designated Test Combination) ratings and is for reference purposes only. A full listing of official ratings and system match-ups, along with downloadable certificates, can be accessed from the AHRI website: www.ahridirectory.org.

[] Designates Metric Conversions



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.

PartsFive (5) 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.

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, Thermal Zone reserves the right to make changes without notice."