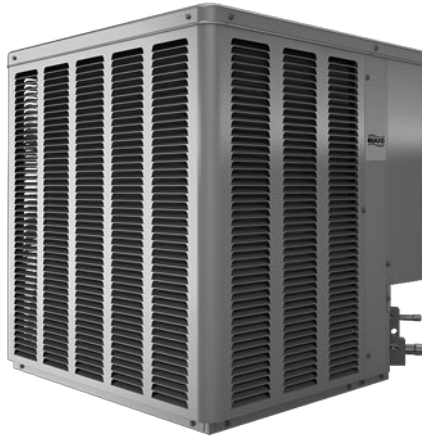




Ruud Choice™ Series Air Conditioners



WA14**W SERIES

Efficiency up to 16 SEER/13 EER

Nominal Sizes 1.5 to 3 Ton

[5.28 to 10.6 kW]



"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."

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

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Air Conditioners*

<u>W</u>	<u>A</u>	<u>14</u>	<u>24</u>	<u>W</u>	<u>J</u>	<u>1</u>	<u>N</u>	<u>A</u>
Brand	Product Category	SEER	Capacity BTU/HR	Major Series*	Voltage	Type	Controls	Minor Series**
Ruud	A - Air Conditioners	14 - 14 SEER	18 - 18,000 [5.28 kW] 24 - 24,000 [7.03 kW] 30 - 30,000 [8.79 kW] 36 - 36,000 [10.55 kW] 43 - 42,000 [12.31 kW] 48 - 48,000 [14.07 kW] 60 - 60,000 [17.58 kW]	W - Southwest Region X - Southwest 2nd Series	J - 1ph, 208-230/60	1 - Single-stage	N - Non-Communicating	A - 1st Design

[] Designates Metric Conversions

Available SKUs

Available Models
WA1418WJTNA
WA1424WJTNA
WA1430XJTNA
WA1436XJTNA
WA1442XJTNA
WA1448WJTNA
WA1460WJTNA



Electrical and Physical Data

Physical Data							
Model No. #	WA1418W	WA1424W	WA1430X	WA1436X	WA1442X	WA1448W	WA1460W
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	80.9	85	98	120	164	207	228
Compressor Type	Scroll						
Outdoor Coil							
Net face area - Outer Coil	11.8	13.7	16.39	21.85	21.85	21.9	21.9
Tube diameter - in.	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Number of rows	1	1	1	1	1	2	2
Fins per inch	22	22	22	22	22	20	20
Outdoor Fan							
Diameter - in.	22	22	24	24	22	24	24
Number of blades	2	2	2	3	3	3	3
Motor hp	1/10	1/12	1/8	1/5	1/4	1/3	1/3
cfm	2049	2077	3000	3500	3600	3615	3615
rpm	825	841	850	850	1075	1075	1075
watts	122	76	135	228	244	195	311
Shipping weight - lbs.	157	171	175	201	201	269	274
Operating weight - lbs.	150	164	168	194	194	262	267
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	25	35	40	50	60
Minimum circuit ampacity ³	12	15	17	23	25	29	35
Compressor							
Rated load amps	9.0	11.2	14.3	17.1	18.6	21.8	26.4
Locked rotor amps	46	60.8	67.8	83.9	109	117	134
Condenser Fan Motor							
Full load amps	0.5	0.36	0.68	3.5	1	1.7	1.7
Locked rotor amps	1.0	1.0	1.3	2.4	2.5	3.2	3.2

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.

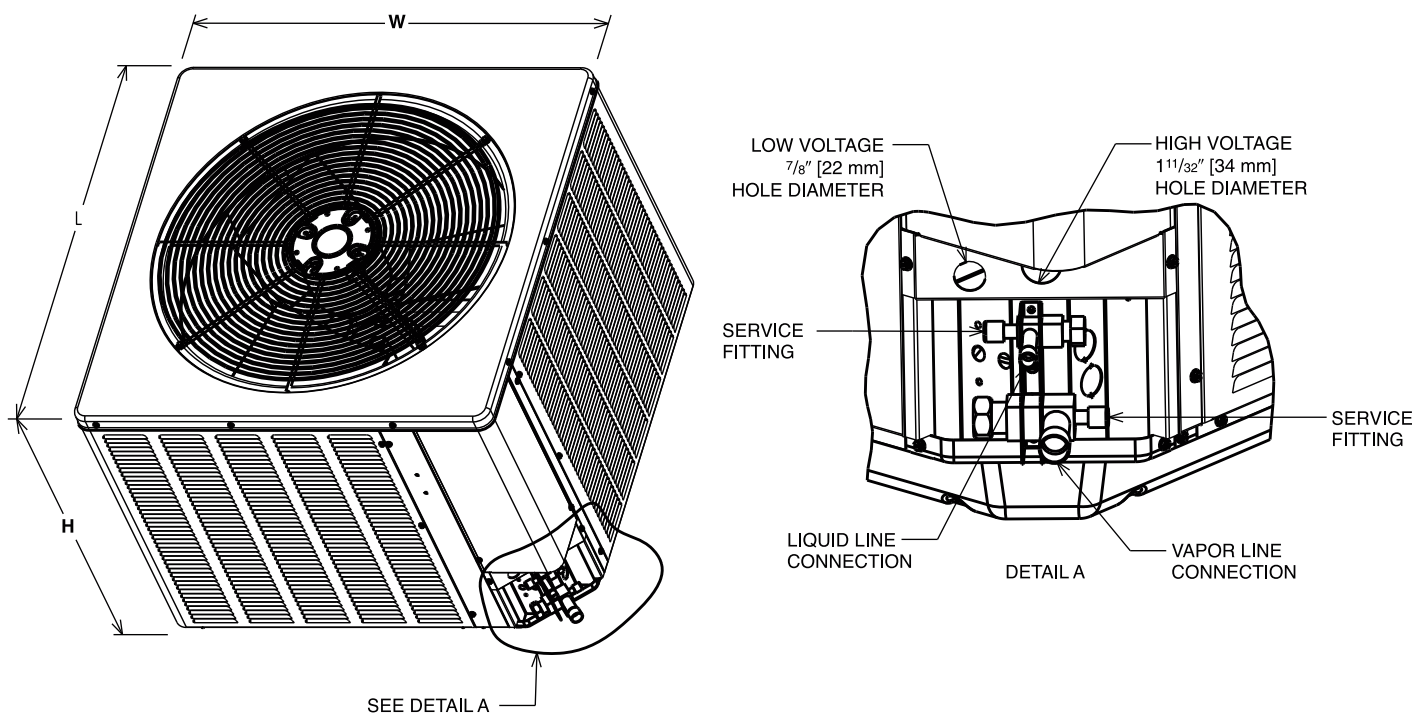
Weighted Sound Power Level (dBA)

Model	Standard Rating (dBA)	TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment)						
		125	250	500	1000	2000	4000	8000
WA1430XJ	71	53.5	56.6	61.1	60.2	58.9	52.9	47.6
WA1436XJ	72	46.6	57.0	59.6	65.4	58.6	55.0	52.7
WA1442XJ	74	47.0	55.5	64.1	64.6	61.2	57.0	54.7

Unit Dimensions

MODEL NUMBER	OPERATING						SHIPPING					
	H (Height)		L (Length)		W (Width)		H (Height)		L (Length)		W (Width)	
	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
WA1418W	24.25	616	27.63	702	27.63	702	24.50	622	28.75	730	28.75	730
WA1424W	24.25	616	27.63	702	27.63	702	24.50	622	28.75	730	28.75	730
WA1430X	27.38	695	31.63	803	31.63	803	27.63	702	32.75	832	32.75	832
WA1436X	35.38	899	31.63	803	31.63	803	35.63	905	32.75	832	32.75	832
WA1442X	35.38	899	31.63	803	31.63	803	35.63	905	32.75	832	32.75	832
WA1448W	35.38	899	31.63	803	31.63	803	35.63	905	32.75	832	32.75	832
WA1460W	35.38	899	31.63	803	31.63	803	35.63	905	32.75	832	32.75	832

[] Designates Metric Conversions



NOTE: Illustrations show the deep drawn basepan.

Air Conditioners Refrigerant Line Size Information

13 - 14 SEER Single-Stage Air-Conditioners																			
Unit Size	Allowable Liquid Line Suction Size	Allowable Suction Line Size	Apply Long Line Guide lines if Linear Line Length Exceeds Those Shown Below			Equivalent Length (Feet)													
			WA13	WA14 A/B/C	WA14 W/X	< 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																
1.5 Ton **SEE NOTE 3	1/4"	5/8"	N/A	N/A	N/A	25 / 1.00	50 / 0.99	62 / 0.98	43 / 0.98	24 / 0.97	5 / 0.97	NR	NR	NR	NR	NR	NR		
	5/16"	5/8"	225	188	190	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	68 / 0.94	68 / 0.94		
	3/8"	5/8"	150	125	127	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	100 / 0.94	100 / 0.94		
	1/4"	3/4***	N/A	N/A	N/A	25 / 1.00	50 / 1.00	62 / 0.99	43 / 0.99	24 / 0.99	5 / 0.99	NR	NR	NR	NR	NR	NR	NR	
	5/16"	3/4***	225	188	190	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	68 / 0.98	68 / 0.98	68 / 0.98	
	3/8"	3/4***	150	125	127	25 / 1.00	50 / 1.00	75 / 1.00	100 / 0.99	100 / 0.99	100 / 0.99	100 / 0.99	100 / 0.99	100 / 0.98	100 / 0.98	100 / 0.98	100 / 0.98	100 / 0.98	
2 Ton	1/4"	5/8"	N/A	N/A	N/A	25 / 0.99	50 / 0.98	21 / 0.97	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
	5/16"	5/8"	223	180	180	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	37 / 0.90	37 / 0.90	37 / 0.90	
	3/8"	5/8"	148	120	120	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	89 / 0.90	89 / 0.90	89 / 0.90	
	1/4"	3/4"	N/A	N/A	N/A	25 / 1.00	50 / 1.00	21 / 0.99	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	5/16"	3/4"	223	180	180	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	37 / 0.96	37 / 0.96	37 / 0.96	37 / 0.96
	3/8"	3/4"	148	120	120	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	90 / 0.96	90 / 0.96	90 / 0.96	90 / 0.96
2.5 Ton	5/16"	5/8"	148	148	113	25 / 0.99	50 / 0.98	75 / 0.96	70 / 0.94	59 / 0.93	48 / 0.91	36 / 0.90	NR	NR	NR	NR	NR	NR	
	3/8"	5/8"	98	98	75	25 / 0.99	50 / 0.98	75 / 0.96	100 / 0.94	98 / 0.93	94 / 0.91	90 / 0.90	NR	NR	NR	NR	NR	NR	
	5/16"	3/4"	148	148	113	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	NR	NR	NR	
	3/8"	3/4"	98	98	75	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	78 / 0.95	78 / 0.95	78 / 0.95	
	5/16"	5/8"	N/A	73	73	25 / 0.99	50 / 0.97	66 / 0.94	49 / 0.92	32 / 0.90	NR	NR	NR	NR	NR	NR	NR	NR	
	3/8"	5/8"	110	48	48	25 / 0.99	50 / 0.97	75 / 0.94	95 / 0.92	89 / 0.90	NR	NR	NR	NR	NR	NR	NR	NR	
3 Ton	5/16"	3/4"	N/A	73	73	25 / 1.00	50 / 0.99	66 / 0.98	49 / 0.98	32 / 0.97	15 / 0.96	NR	NR	NR	NR	NR	NR	NR	
	3/8"	3/4"	110	48	48	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	61 / 0.93	61 / 0.93	61 / 0.93	
	1/2"	3/4"	55	24	24	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	100 / 0.93	100 / 0.93	100 / 0.93	
	5/16"	7/8"	N/A	73	73	25 / 1.00	50 / 1.00	66 / 1.00	49 / 0.99	32 / 0.99	15 / 0.99	NR	NR	NR	NR	NR	NR	NR	
	3/8"	7/8"	110	48	48	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	61 / 0.97	61 / 0.97	61 / 0.97	
	1/2"	7/8"	55	24	24	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 / 0.98	100 / 0.98	100 / 0.98	100 / 0.98	
3.5 Ton	3/8"	3/4"	148	100	100	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	NR	NR	NR	
	1/2"	3/4"	74	50	50	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	NR	NR	NR	
	3/8"	7/8"	148	100	100	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	42 / 0.96	42 / 0.96	42 / 0.96	
	1/2"	7/8"	74	50	50	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 / 0.97	100 / 0.96	100 / 0.96	100 / 0.96	100 / 0.96	
	3/8"	3/4"	148	100	100	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	NR	NR	NR	
	1/2"	3/4"	74	50	50	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 / 0.97	100 / 0.96	100 / 0.96	100 / 0.96	100 / 0.96	

NOTES:

- Do not exceed 200 ft linear line length.
- Do not exceed 100 ft vertical separation if outdoor unit is above indoor unit.
- **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.
- Always use the smallest liquid line allowable to minimize refrigerant charge.
- Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.
- Applications shaded in dark gray are not recommended due to excessive liquid or suction pressure drop.

Air Conditioners Refrigerant Line Size Information

13 - 14 SEER 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)									
			WA13	WA14 A/B/C	WA14 W/X	< 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"	82	82	0	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"	41	41	0	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"	82	82	0	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"	41	41	0	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	0	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	0	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	0	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	0	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	0	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	0	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.

Air Conditioners Refrigerant Line Size Information

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 (Meters)			Equivalent Length (Meters)												
			WA13	WA14 A/B/C	WA14 W/X	< 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		
5.3 kW [1.5 Ton] **SEE NOTE 3	6.35 [1/4]	15.88 [5/8]	N/A	N/A	N/A	8 / 1.00	15 / 0.99	19 / 0.98	13 / 0.98	7 / 0.97	2 / 0.97	NR	NR	NR	NR	NR	NR	
	7.94 [5/16]	15.88 [5/8]	69	57	58	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	21 / 0.94	21 / 0.94	
	9.53 [3/8]	15.88 [5/8]	46	38	39	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 / 0.95	30 / 0.94	30 / 0.94	
	6.35 [1/4]	19.05 [3/4]**	N/A	N/A	N/A	8 / 1.00	15 / 1.00	19 / 0.99	13 / 0.99	7 / 0.99	2 / 0.99	NR	NR	NR	NR	NR	NR	NR
	7.94 [5/16]	19.05 [3/4]**	69	57	58	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	21 / 0.98	21 / 0.98	21 / 0.98
	9.53 [3/8]	19.05 [3/4]**	46	38	39	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	30 / 0.98	30 / 0.98	30 / 0.98
7.0 kW [2 Ton]	6.35 [1/4]	15.88 [5/8]	N/A	N/A	N/A	8 / 0.99	15 / 0.98	6 / 0.97	NR	NR	NR	NR	NR	NR	NR	NR	NR	
	7.94 [5/16]	15.88 [5/8]	68	55	55	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	11 / 0.90	11 / 0.90	
	9.53 [3/8]	15.88 [5/8]	45	37	37	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	27 / 0.90	27 / 0.90	
	6.35 [1/4]	19.05 [3/4]	N/A	N/A	N/A	8 / 1.00	15 / 1.00	6 / 0.99	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	7.94 [5/16]	19.05 [3/4]	68	55	55	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	11 / 0.96	11 / 0.96	
	9.53 [3/8]	19.05 [3/4]	45	37	37	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	27 / 0.96	27 / 0.96	
8.8 kW [2.5 Ton]	7.94 [5/16]	15.88 [5/8]	45	45	34	8 / 0.99	15 / 0.98	23 / 0.96	21 / 0.94	18 / 0.93	15 / 0.91	11 / 0.90	NR	NR	NR	NR	NR	
	9.53 [3/8]	15.88 [5/8]	30	30	23	8 / 0.99	15 / 0.98	23 / 0.96	30 / 0.94	30 / 0.93	29 / 0.91	27 / 0.90	NR	NR	NR	NR	NR	
	7.94 [5/16]	19.05 [3/4]	45	45	34	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	NR	NR	
	9.53 [3/8]	19.05 [3/4]	30	30	23	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	24 / 0.95	24 / 0.95	
	7.94 [5/16]	15.88 [5/8]	N/A	22	22	8 / 0.99	15 / 0.97	20 / 0.94	15 / 0.92	10 / 0.90	NR	NR	NR	NR	NR	NR	NR	
	9.53 [3/8]	15.88 [5/8]	34	15	15	8 / 0.99	15 / 0.97	23 / 0.94	29 / 0.92	27 / 0.90	NR	NR	NR	NR	NR	NR	NR	
10.6 kW [3 Ton]	7.94 [5/16]	19.05 [3/4]	34	15	15	8 / 1.00	15 / 0.99	20 / 0.98	15 / 0.98	10 / 0.97	5 / 0.96	NR	NR	NR	NR	NR	NR	
	9.53 [3/8]	19.05 [3/4]	34	15	15	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	19 / 0.93	19 / 0.93	
	12.7 [1/2]	19.05 [3/4]	17	7	7	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	30 / 0.93	30 / 0.93	
	7.94 [5/16]	22.23 [7/8]	N/A	22	22	8 / 1.00	15 / 1.00	20 / 1.00	15 / 0.99	10 / 0.99	5 / 0.99	NR	NR	NR	NR	NR	NR	
	9.53 [3/8]	22.23 [7/8]	34	15	15	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	19 / 0.97	19 / 0.97	
	12.7 [1/2]	22.23 [7/8]	17	7	7	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	30 / 0.97	30 / 0.97	
12.3 kW [3.5 Ton]	9.53 [3/8]	19.05 [3/4]	45	30	30	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	NR	NR	
	12.7 [1/2]	19.05 [3/4]	23	15	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	NR	NR	
	9.53 [3/8]	22.23 [7/8]	45	30	30	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	13 / 0.96	13 / 0.96	
	12.7 [1/2]	22.23 [7/8]	23	15	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 / 0.97	30 / 0.96	30 / 0.96	30 / 0.96	

NOTES:

- Do not exceed 61 meters linear line length.
- * Do not exceed 30 meters vertical separation if outdoor unit is above indoor unit.
- ** 19.05 mm [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.
- Always use the smallest liquid line allowable to minimize refrigerant charge.
- Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.
- Applications shaded in dark gray are not recommended due to excessive liquid or suction pressure drop.

[] Designates Metric Conversions

Air Conditioners Refrigerant Line Size Information

13 - 14 SEER Single-Stage Air-Conditioners																
Unit Size	Allowable Liquid Line Size mm [in.]	Allowable Suction Line Size mm [in.]	Apply Long Line Guide lines if Linear Line Length Exceeds Those Shown Below (Meters)			Equivalent Length (Meters)										
			WA13	WA14 A/B/C	WA14 W/X	< 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]	25	25	0	8 / 0.99	15 / 0.98	23 / 0.96	24 / 0.95	20 / 0.93	17 / 0.92	14 / 0.91	NR	NR	NR	NR
	12.7 [1/2]	19.05 [3/4]	12	12	0	8 / 0.99	15 / 0.98	23 / 0.96	30 / 0.95	30 / 0.93	30 / 0.92	30 / 0.91	NR	NR	NR	NR
	9.53 [3/8]	22.23 [7/8]	25	25	0	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	30 / 0.95
	12.7 [1/2]	22.23 [7/8]	12	12	0	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 / 0.96	30 / 0.95	30 / 0.95
17.6 kW [5 Ton]	9.53 [3/8]	19.05 [3/4]	0	0	0	8 / 0.99	15 / 0.97	23 / 0.94	19 / 0.92	14 / 0.90	NR	NR	NR	NR	NR	NR
	12.7 [1/2]	19.05 [3/4]	0	0	0	8 / 0.99	15 / 0.97	23 / 0.94	30 / 0.92	30 / 0.90	NR	NR	NR	NR	NR	NR
	9.53 [3/8]	22.23 [7/8]	0	0	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	NR
	12.7 [1/2]	22.23 [7/8]	0	0	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	NR
	9.53 [3/8]	28.58 [1-1/8]	0	0	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	NR
	12.7 [1/2]	28.58 [1-1/8]	0	0	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	27 / 0.98

NOTES:

- Do not exceed 61 meters linear line length.
- *Do not exceed 30 meters vertical separation if outdoor unit is above indoor unit.
- **19.05 mm [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.
- Always use the smallest liquid line allowable to minimize refrigerant charge.
- Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.
- Applications shaded in dark gray are not recommended due to excessive liquid or suction pressure drop.

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Performance Data @ AHRI Standard Conditions—Cooling

Designated Tested Combination (DTC)							
Outdoor Unit	Indoor Coil or Air Handler	Total Capacity BTU/H [kW]	Net Sensible BTU/H [kW]	Net Latent BTU/H [kW]	SEER	EER	Indoor CFM [L/s]
WA1418WJ1	TCFL-H*2417	18000 [5.3]	13300 [3.9]	4700 [1.4]	14	12.2	600 [283.2]
WA1424WJ1	TCFL-H*2617	24000 [7.0]	17500 [5.1]	6500 [1.9]	14	12.2	800 [377.6]
WA1430XJ1	TCF3617STA	29000 [8.5]	21300 [6.3]	7700 [2.3]	14	12.2	1000 [471.9]
WA1436XJ1	TCF3617STA	36000 [10.6]	25700 [7.6]	10300 [3.1]	14	12.2	1125 [530.9]
WA1442XJ1	TCF4821MTA	41500 [12.2]	32100 [9.5]	9400 [2.8]	14	12.2	1350 [637.1]
WA1448WJ1	TCF4821STA	46500 [13.6]	34100 [10.0]	12400 [3.6]	14	11.7	1375 [648.9]
WA1460WJ1	TCFL-H*6024	59500 [17.4]	41000 [12.0]	18500 [5.4]	14	11.7	1600 [755.1]

Note: Additional ratings and system match ups and downloadable ratings certificates can be accessed from the AHRI website: www.ahridirectory.org

[] Designates Metric Conversions

GENERAL TERMS OF LIMITED WARRANTY*

Ruud 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 and Conditional Warranties, including applicable terms and conditions, contact your local contractor or the Manufacturer for a copy of the product warranty certificate.**



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

Ruud Heating, Cooling & Water Heating • 5600 Old Greenwood Road
Fort Smith, Arkansas 72908 • www.ruud.com

Ruud Canada • 125 Edgeware Road, Unit 1
Brampton, Ontario • L6Y 0P5

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