

Endeavor[™] Line *Select*[®] Series iC Heat Pumps



WP15AZ

Cooling Efficiencies up to: 16 SEER2/11.7 EER2

Heating Efficiencies up to: 8.1 HSPF2

Nominal Sizes: 11/2 to 5 Ton [5.28 to 17.6 kW]

Cooling Capacities: 17.1 to 55.5 kBTU [5.0 to 16.3 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.

Table of Contents

Features & Benefits	3
Model Number Identification	4
General Data/Electrical Data	5
Accessories	6
Weighted Sound Power	6
Unit Dimensions	7
Clearances	8
Refrigerant Line Size Information	9-10
Performance Data	11
Limited Warranty	12

Features and Benefits

- Fully Louvered Steel Cabinet: Features durable construction to add protection from yard hazards, weather corrosion
- Two-Stage Scroll Compressor: Features two speeds (high and low) of cooling and heating, providing more precise temperature control, lower humidity and greater efficiency when compared to single stage compressors
- 7 mm Condenser Copper Coil1: Requires less refrigerant allowing for a smaller and lighter footprint while enhancing reliability
- Inverted Reversing Valve: Allows for faster heat transfer with gravity assist shifting and reduced joint stress for increased reliability
- Easily Accessible Control Box: Ease of installation and serviceability

¹Does not apply to the 5 Ton Model

Heat I	Heat Pumps												
<u>w</u>	<u>P</u>	<u>15</u>	<u>A</u>	<u>z</u>	<u>18</u>	<u>A</u>	Ī	<u>2</u>	<u>N</u>	<u>A</u>			
Brand	Product Category	SEER2	Region	Refrigerant	Capacity	Major Series	Voltage	Туре	Controls	Minor Series			
W - Rheem Select	P - Heat Pump	15 - 15.2 SEER2	A - All Regions	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	2 - 2-Stage	N - Non-Communicating	A - 1st Design			

[] Designates Metric Conversions

AVAILABLE MODELS
AVAILABLE WIUDELS
WP15AZ18AJ2N
WP15AZ24AJ2N
WP15AZ30AJ2N
WP15AZ36AJ2N
WP15AZ42AJ2N
WP15AZ48AJ2N
WP15AZ60AJ2N

STANDARD EQUIPMENT
R-410A Refrigerant
Scroll Compressor
Field Installed Filter Drier
Front Seating Service Valves
Internal Pressure Relief Valve
Internal Thermal Overload
Long Line capability
Low Ambient capability with Kit
3-4-5 Expanded Valve Space
Optimized Venturi Airflow
Single row condenser coil
Rust resistant screws
QR code
External gauge ports

MODEL NO.	(-)P15AZ 18AJ2NA	(-)P15AZ 24AJ2NA	(-)P15AZ 30AJ2NA	(-)P15AZ 36AJ2NA	(-)P15AZ 42AJ2NA	(-)P15AZ 48AJ2NA	(-)P15AZ 60AJ2NA			
Nominal Tonnage										
Valve Connections										
Liquid Line O.D. – in.	0.375	0.375	0.375	0.375	0.375	0.375	0.375			
Suction Line O.D. – in.	0.75	0.75	0.75	0.75	0.875	0.875	0.875			
Refrigerant (R410A) furnished oz. ¹	118	118	120	127	143	146	220			
Compressor Type	2-stage Scroll									
Outdoor Coil										
Net face area – Outer Coil	10.9	10.9	19.5	21.5	21.5	21.5	32.5			
Net face area – Inner Coil	10.5	10.5								
Tube diameter – in.	0.276	0.276	0.276	0.276	0.276	0.276	0.375			
Number of rows	2	2	1	1	1	1	1			
Fins per inch	22	22	22	22	22	22	20			
Outdoor Fan										
Diameter – in.	20	20	24	24	24	24	26			
Number of blades	2	2	3	3	3	3	3			
Motor hp	1/6	1/6	1/5	1/5	1/5	1/5	1/5			
CFM	2582	2582	4077	4206	4206	4206	5106			
RPM	1075	1075	850	850	850	850	850			
watts	145	145	222	246	246	246	294			
Shipping weight – lbs.		1		MINC SO						
Operating weight – lbs.	Τ			MING SO	UN					

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	15	25	30	30	45	45	50
Minimum circuit ampacity³	11	15	18	20	26	28	31
Compressor							
Rated load amps	8	11	14	15	20	21	24
Locked rotor amps	56	61	87	102	151	0	151
Condenser Fan Motor							
Full load amps	0.75	0.75	1.0	1.0	1.0	1.0	1.0
Locked rotor amps	1.5	1.5	2.56	2.56	2.56	2.56	2.56

Refrigerant 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 of fuse.

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

Accessories

MODEL	NO.	WP15AZ18**2	WP15AZ24	WP15AZ30	WP15AZ36	WP15AZ42	WP15AZ48	WP15AZ60
Compressor crankcase	heater*	44-17402-44	44-17402-44	44-17402-44	44-17402-44	44-17402-45	44-17402-45	Factory Standard
Low ambient control		RXAD-A08						
Compressor sound cov	er	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						
Low pressure control		Factory Standard						
High pressure control		Factory Standard						
Liquid Line Solenoid	Solenoid Valve	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD3T3TVLC	200RD3T3TVLC
(24 VAC, 50/60 Hz)	Solenoid Coil	61-AMG24V						
Liquid Line Solenoid	Solenoid Valve	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD3T3TVLC	200RD3T3TVLC
(120/240 VAC, 50/60 Hz)	Solenoid Coil	61-AMG120/240V						
Classic Top Cap w/Labe	el	91-101123-21	91-101123-21	91-101123-21	91-101123-21	91-101123-21	91-101123-21	91-101123-21

^{*}Bi-flow kits are required when installing a liquid line solenoid on a heat pump.

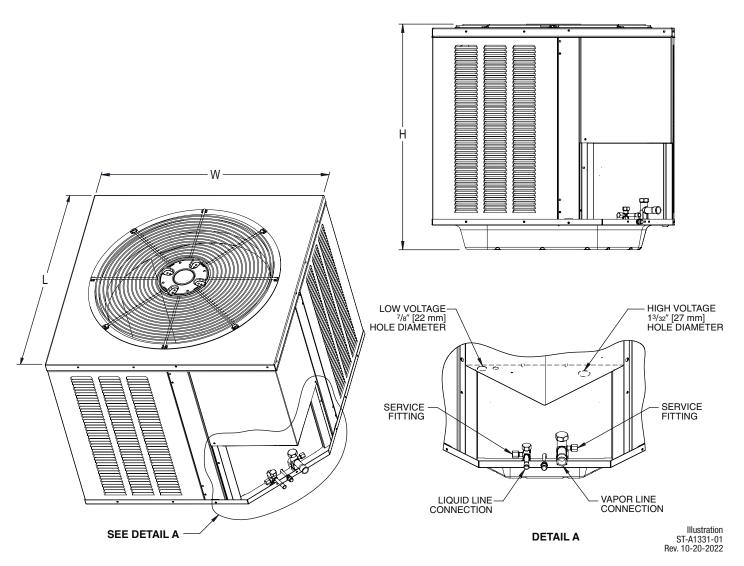
Weighted Sound Power Level (dBA)

UNIT SIZE -	STANDARD	TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment)									
VOLTAGE, SERIES	RATING (DBA)	125	250	500	1000	2000	4000	8000			
WP15AZ18A	73	58.0	58.8	62.0	62.3	59.2	56.6	50.5			
WP15AZ24A	73	56.6	59.6	62.2	62.1	58.8	55.4	50.8			
WP15AZ30A	72	48.9	55.3	63.6	61.0	59.1	56.5	48.7			
WP15AZ36A	74	51.2	56.4	63.1	63.8	60.8	57.4	56.5			
WP15AZ42A	74	56.8	58.7	65.9	66.2	62.9	59.4	54.2			
WP15AZ48A	74	57.3	56.6	64.1	64.0	61.1	58.0	56.5			
WP15AZ60A	74	43.9	55.2	63.4	65.8	61.7	57.9	52.9			

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

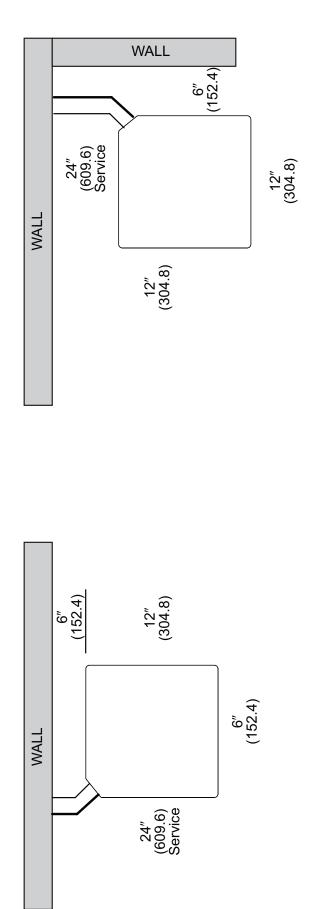
Unit Dimensions

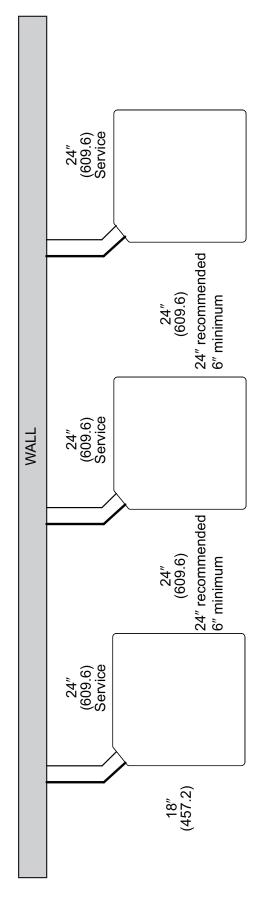
			OPER/	TING		SHIPPING							
MODEL No.	H (Height)		L (Length)		W (Width)		H (Height)		L (Length)		W (Width)		
	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	
(-)P15AZ18AJ2NA	25.170	639.32	29.543	750.39	29.543	750.39	27.063	687.39	32.625	828.68	32.625	828.68	
(-)P15AZ24AJ2NA	25.170	639.32	29.543	750.39	29.543	750.39	27.063	687.39	32.625	828.68	32.625	828.68	
(-)P15AZ30AJ2NA	35.170	893.32	33.655	854.84	33.655	854.84	37.063	941.39	36.625	930.28	36.625	930.28	
(-)P15AZ36AJ2NA	39.170	994.92	33.655	854.84	33.655	854.84	41.063	1042.99	36.625	930.28	36.625	930.28	
(-)P15AZ42AJ2NA	39.170	994.92	33.655	854.84	33.655	854.84	41.063	1042.99	36.625	930.28	36.625	930.28	
(-)P15AZ48AJ2NA	39.170	994.92	33.655	854.84	33.655	854.84	41.063	1042.99	36.625	930.28	36.625	930.28	
(-)P15AZ60AJ2NA	51.170	1299.72	35.543	902.79	35.543	902.79	53.063	1347.79	38.625	981.08	38.625	981.08	



[] 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 ventillation to prevent re-circulation of discharge air.

Refrigerant Line Size Information

	SINGLE- AND TWO-STAGE HEAT PUMPS												
					OUTDOOR UNIT	ABOVE OR BELO	W INDOOR UNIT						
UNIT	MAX. Liquid	SUCTION			EQUIV	VALENT LENGTH (FEET)						
SIZE	LINE SIZE	LINE SIZE	0-15	16-25	26-50	51-80	81-100	101-125	126-150				
				MA	XIMUM VERTICAL	L SEPARATION/CA	PACITY MULTIPL	IER					
		1/2"	15 / 1	25 / 1	50 / 0.99	80 / 0.97	100 / 0.97	115 / 0.96	115 / 0.95				
1.5 Ton	3/8"	5/8"	15 / 1	25 / 1	50 / 1	80 / 0.99	100 / 0.99	115 / 0.99	115 / 0.98				
		3/4"	15 / 1	25 / 1	50 / 1	80 / 0.99	100 / 0.99	115 / 0.99	115 / 0.98				
0 Top	2/0"	5/8"	15 / 1	25 / 1	50 / 0.99	80 / 0.98	100 / 0.97	100 / 0.96	95 / 0.95				
2 1011	2 Ton 3/8"	3/4"	15 / 1	25 / 1	50 / 1	80 / 0.99	100 / 0.99	100 / 0.99	95 / 0.98				
0 E Ton	2.5 Ton 3/8"	5/8"	15 / 1	25 / 0.99	50 / 0.98	80 / 0.97	95 / 0.96	90 / 0.94	85 / 0.93				
2.3 1011		3/4"	15 / 1	25 / 1	50 / 0.99	80 / 0.99	95 / 0.98	90 / 0.98	85 / 0.97				
		5/8"	15 / 1	25 / 0.99	50 / 0.97	80 / 0.95	85 / 0.94	80 / 0.92	75 / 0.9				
3 Ton	3/8"	3/4"	15 / 1	25 / 1	50 / 0.99	80 / 0.98	85 / 0.98	80 / 0.97	75 / 0.96				
		7/8"	15 / 1	25 / 1	50 / 1	80 / 0.99	85 / 0.99	80 / 0.99	75 / 0.98				
2 F Ton	3/8"	3/4"	15 / 1	25 / 0.99	50 / 0.98	80 / 0.97	80 / 0.97	70 / 0.96	65 / 0.95				
3.5 Ton	3/0	7/8"	15 / 1	25 / 1	50 / 0.99	80 / 0.99	80 / 0.99	70 / 0.98	65 / 0.98				
4 Ton	3/8"	3/4"	15 / 1	25 / 0.99	50 / 0.98	75 / 0.97	70 / 0.96	60 / 0.95	50 / 0.94				
4 1011	3/0	7/8"	15 / 1	25 / 1	50 / 0.99	75 / 0.99	70 / 0.98	60 / 0.98	50 / 0.97				
5 Ton	3/8"	3/4"	15 / 1	25 / 0.99	50 / 0.97	65 / 0.95	45 / 0.94	30 / 0.92	15 / 0.9				
5 1011	ა/8	7/8"	15 / 1	25 / 0.99	50 / 0.99	65 / 0.98	45 / 0.97	30 / 0.96	15 / 0.96				

NOTES:

¹⁾ Maximum Equivelent Line Length may not exceed 250'

²⁾ Maximum Actual Line Length may not exceed 200'

³⁾ Light Grey shaded areas are considered long line and may require accessories as recommended in Long Line Set Guide
4) Refer to supplemental Long Line Set Guide for applications that require liquid line size other than 3/8"
5) DO NOT use suction line traps in the suction riser as this adds additional unwanted pressure drop in the system

Refrigerant Line Size Information (Con't.)

	SINGLE- AND TWO-STAGE HEAT PUMPS												
			OUTDOOR UNIT ABOVE OR BELOW INDOOR UNIT										
UNIT	MAX. Liquid	SUCTION			EQUIVA	LENT LENGTH (M	ETERS)						
SIZE	LINE SIZE	LINE SIZE	0-5	5.5-8	8.5-15	15.5-24	24.5-30	30.5-38	38.5-46				
				MA	XIMUM VERTICAL	SEPARATION/CA	PACITY MULTIPL	IER					
		1/2"	5/1	8/1	15 / 0.99	24 / 0.97	30 / 0.97	35 / 0.96	35 / 0.95				
1.5 Ton	3/8"	5/8"	5/1	8 / 1	15 / 1	24 / 0.99	30 / 0.99	35 / 0.99	35 / 0.98				
		3/4"	5/1	8/1	15 / 1	24 / 0.99	30 / 0.99	35 / 0.99	35 / 0.98				
0 Ton	2/0"	5/8"	5/1	8/1	15 / 0.99	24 / 0.98	30 / 0.97	30 / 0.96	29 / 0.95				
2 1011	2 Ton 3/8"	3/4"	5/1	8 / 1	15 / 1	24 / 0.99	30 / 0.99	30 / 0.99	29 / 0.98				
2.5 Ton	2.5 Ton 3/8"	5/8"	5/1	8 / 0.99	15 / 0.98	24 / 0.97	29 / 0.96	27 / 0.94	26 / 0.93				
2.5 1011	3/0	3/4"	5/1	8/1	15 / 0.99	24 / 0.99	29 / 0.98	27 / 0.98	26 / 0.97				
		5/8"	5/1	8 / 0.99	15 / 0.97	24 / 0.95	26 / 0.94	24 / 0.92	23 / 0.9				
3 Ton	3/8"	3/4"	5/1	8 / 1	15 / 0.99	24 / 0.98	26 / 0.98	24 / 0.97	23 / 0.96				
		7/8"	5/1	8 / 1	15 / 1	24 / 0.99	26 / 0.99	24 / 0.99	23 / 0.98				
3.5 Ton	3/8"	3/4"	5/1	8 / 0.99	15 / 0.98	24 / 0.97	24 / 0.97	21 / 0.96	20 / 0.95				
3.3 1011	3/0	7/8"	5/1	8 / 1	15 / 0.99	24 / 0.99	24 / 0.99	21 / 0.98	20 / 0.98				
4 Ton	3/8"	3/4"	5/1	8 / 0.99	15 / 0.98	23 / 0.97	21 / 0.96	18 / 0.95	15 / 0.94				
4 1011	3/0	7/8"	5/1	8/1	15 / 0.99	23 / 0.99	21 / 0.98	18 / 0.98	15 / 0.97				
5 Ton	3/8"	3/4"	5/1	8 / 0.99	15 / 0.97	20 / 0.95	14 / 0.94	9 / 0.92	5 / 0.9				
5 1011	J 3/0	7/8"	5/1	8 / 0.99	15 / 0.99	20 / 0.98	14 / 0.97	9 / 0.96	5 / 0.96				

NOTES:

- 1) Maximum Equivelent Line Length may not exceed 76 meters
- 2) Maximum Actual Line Length may not exceed 61 meters

- 3) Light Grey shaded areas are considered long line and may require accessories as recommended in Long Line Set Guide
 4) Refer to supplemental Long Line Set Guide for applications that require liquid line size other than 9.5mm
 5) DO NOT use suction line traps in the suction riser as this adds additional unwanted pressure drop in the system

Performance Data @ AHRI Standard Conditions - Cooling

DESIGNATED	DESIGNATED TESTED COMBINATION (DTC)												
OUTDOOR UNIT	AIR HANDLER	TOTAL Capacity BTU/H [kw]	NET SENSIBLE BTU/H [kW]	NET LATENT BTU/H [kW]	SEER2	EER2	INDOOR CFM [L/S]	47 DEGREE HEATING CAPACITY BTU/H [KW]	47 DEGREE COP	17 DEGREE HEATING CAPACITY BTU/H [KW]	17 DEGREE COP	REGION IV HSPF2	
WP15AZ18AJ2N	RH2TZ2417STANN	17,100 [5.0]	13,100 [3.8]	4,000 [1.2]	15.2	11.7	625 [295.0]	17,100 [5.0]	3.87	11,600 [3.4]	2.60	7.8	
WP15AZ24AJ2N	RH2TZ2417STANN	22,800 [6.7]	17,400 [5.1]	5,400 [1.6]	15.2	11.7	775 [365.8]	22,600 [6.6]	3.88	15,600 [4.6]	2.80	7.8	
WP15AZ30AJ2N	RH2TZ3617STANN	28,400 [8.3]	21,800 [6.4]	6,600 [1.9]	15.2	11.7	900 [424.8]	28,400 [8.3]	3.62	19,700 [5.8]	2.60	7.8	
WP15AZ36AJ2N	RH2TZ3617STANN	34,200 [10.0]	26,200 [7.7]	8,000 [2.3]	15.2	11.7	1,050 [495.5]	34,200 [10.0]	3.62	24,400 [7.2]	2.70	7.8	
WP15AZ42AJ2N	RH2TZ4821STANN	40,000 [11.7]	30,500 [8.9]	9,500 [2.8]	15.2	11.7	1,325 [625.3]	39,500 [11.6]	3.95	28,200 [8.3]	2.90	7.8	
WP15AZ48AJ2N	RH2TZ4821STANN	45,500 [13.3]	35,000 [10.3]	10,500 [3.1]	15.2	11.7	1,450 [684.3]	45,000 [13.2]	3.92	33,200 [9.7]	2.90	7.8	
WP15AZ60AJ2N	RH2TZ6024STANN	57,000 [16.7]	43,500 [12.7]	13,500 [4.0]	15.2	11.7	1,800 [849.5]	57,000 [16.7]	4.04	42,500 [12.5]	3.00	7.8	

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*

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

PartsFive	(5)	Years

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.

© 2023 Rheem Manufacturing Company. Rheem trademarks owned by Rheem Manufacturing Company.

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

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

Rheem Canada Ltd./Ltée • 125 Edgeware Road, Unit 1 Brampton, Ontario • L6Y 0P5 • rheem.ca