

# ENDEAVOR™



[Rheem.com/Endeavor](http://Rheem.com/Endeavor)

## High Performance and Sustainability Have Never Felt So Good

Keep consistently comfortable year-round with the Rheem® Endeavor™ Line of Heat Pumps and Air Conditioners. The Rheem Endeavor Line offers an excellent range of choices designed for lasting energy-efficient comfort that saves you money while delivering peace of mind.



# Relax with Consistently Hot... or Cold Temperatures



## PEACE-OF-MIND PERFORMANCE

Relax, you're covered by one of the best warranties in the industry<sup>1</sup>—up to 10 Year Limited Parts + 10 Year Conditional Unit Replacement<sup>2</sup>.



## QUIET OPERATION

Efficient home comfort shouldn't be noisy. That's why our air conditioners and heat pumps are designed with acoustics in mind. Integrated sound-dampening features such as refrigerant tubing design, fan blade approach, composite base pan and innovative compressor and drive technologies let you enjoy more efficiency—and less noise<sup>3</sup>.



## REDUCED EMISSIONS

Households generate 72%<sup>4</sup> of greenhouse gas emissions, so switching to a heat pump can make a big difference for the environment—today.



## HIGH COMFORT

Inverter-driven, variable speed compressor<sup>5</sup> (between 40% and 100% of capacity), variable speed twin rotary compressor<sup>6</sup> (between 40% and 70% of capacity, ramping up to 100% when required), two-stage<sup>7</sup> (high, low) or single-stage<sup>8</sup> technology work to continuously meet your ever-changing cooling needs. You'll enjoy steady temperature and advanced humidity control that combine to exceed your optimal comfort expectations.



# EcoNet<sup>®</sup>



Several of the Rheem Endeavor Line Heat Pumps and Air Conditioners operate with the easy-to-use EcoNet Smart Thermostat, which optimizes system performance and provides a new level of protection and precision comfort **with features like:**

- Communication with latest sensor technology
- Control of your thermostat from anywhere via the EcoNet App<sup>9</sup>
- Alerts sent directly to your phone or email



## Helping You Live Both **Comfortably** and **Sustainably**

Several of the Rheem Endeavor Line Heat Pumps and Air Conditioners have earned our Sustainability Standout Seal, indicating they're among the best of the best. We created the Seal to help you more easily find the products that save energy, save money and save the planet.



## Among Heat Pumps and Air Conditioners, **These Are Stars**

Earning ENERGY STAR<sup>®</sup> recognition means products meet strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and several of the Rheem Endeavor Heat Pumps and Air Conditioners are ENERGY STAR<sup>®</sup> certified, offering annual energy cost savings<sup>10</sup>.



## Simplified Install & Service with Bluetooth Technology

Built-in Bluetooth<sup>®</sup> connectivity<sup>11</sup> on many of the Heat Pump and Air Conditioner models make it faster and easier for your contractor to install and service your new system. This can help lower your costs and help make your home comfortable again—fast.



## TESTED. TRUSTED. TOUGH.

From the smallest part to complete comfort systems, we build quality into everything we make so we can be sure it's tough enough to deliver the ultimate performance you can count on day after day, year after year. That reliability is what makes Rheem different—and better.



## We Thought of Everything... & Then Some

We evaluate every detail of a product from top to bottom, inside and out and every angle in between. That's 360+<sup>1</sup>. And that's why you can count on these heat pumps and air conditioners to bring you and your family years of efficient and dependable comfort.



# Rheem® Endeavor™ Line Heat Pump Series\*

\*ENERGY STAR® certified  
RP15AZ will launch in 2023



Welcome year-round comfort into your home with the Rheem® Endeavor™ Line of Heat Pumps. Each model is designed to provide super-efficient and consistent heating and cooling technology to keep your utility bills dependably low, season after season.

	<b>Prestige®</b>	<b>Classic Plus®</b>	<b>Classic®</b>	<b>Select™</b>
	<b>RP18AZ</b>	<b>RP16AZ</b>	<b>RP14AZ</b>	<b>WP14AZ</b>
<b>Cooling &amp; Heating Efficiency<sup>12</sup></b>	19 SEER2 / 12.5 EER2 / 8.5 HSPF2	17 SEER2 / 10.4 EER2 / 8.1 HSPF2	14.3 SEER2 / 9 EER2 / 7.5 HSPF2	14.3 SEER2 / 9 EER2 / 7.5 HSPF2
<b>Nominal Sizes</b>	2 to 5 tons	2 to 5 tons	1.5 to 5 tons	1.5 to 5 tons
<b>Cabinet Type Designator</b>	iM	iM	iM	iC
<b>Cooling &amp; Heating Capacities</b>	22.8 to 54 kBTU	22.8 to 56 kBTU	17.1 to 55.5 kBTU	17.1 to 55.5 kBTU
<b>EcoNet® Enabled</b>	Yes	Yes	No	No
<b>Sound Rating<sup>3</sup> (as low as)</b>	58 dB	60 dB	72 dB	72 dB
<b>Compressor Type</b>	Inverter Driven, Variable Speed	Inverter Driven, Variable Speed Twin Rotary	Two-Stage	Two-Stage
<b>Condenser Coil Type</b>	3/8 in.	7mm <sup>13</sup>	7mm <sup>13</sup>	7mm <sup>13</sup>
<b>ENERGY STAR® Certified<sup>10</sup></b>	Yes	No	No	No
<b>Bluetooth Connectivity<sup>11</sup></b>	Yes	Yes	No	No
<b>PlusOne® Features &amp; More (PlusOnes indicated in bold)</b>	<b>Expanded Valve Space and Triple Service Access</b> Rheem Contractor and EcoNet Apps®, built-in EcoNet and Bluetooth technology allows for easy install and diagnostics	<b>Expanded Valve Space and Triple Service Access</b> Rheem Contractor and EcoNet Apps®, built-in EcoNet and Bluetooth technology allows for easy install and diagnostics	<b>Expanded Valve Space and Triple Service Access</b>	n/a
<b>Compatible Thermostat</b>	EcoNet Smart Thermostat — Two-Stage 24V (Emergency Only)	EcoNet Smart Thermostat — Two-Stage 24V (Three-Speed Operation Only)	Two-Stage 24V	Two-Stage 24V
<b>Sustainability Standout</b>	Yes	Yes	No	No
<b>Limited Warranty<sup>1</sup></b>	Parts – 10 years — Unit Replacement – 10 years (registration required)	Parts – 10 years — Unit Replacement – 10 years (registration required)	Conditional Parts – 10 years (registration required)	Parts – 5 years

# Rheem® Endeavor™ Line Air Conditioner Series



Keep cool, even when the utility bill arrives, with the Rheem® Endeavor™ Line of Air Conditioners. Each model is designed to provide super high efficiency, keeping your home dependably comfortable.

	<b>Prestige®</b>	<b>Classic Plus®</b>		<b>Classic®</b>		<b>Select™</b>		
	<b>RA18AZ</b>	<b>RA16AZ</b>	<b>RA15AZ</b>	<b>RA14AZ</b>	<b>RA13NZ</b>	<b>WA15AZ</b>	<b>WA14AZ</b>	<b>WA13NZ</b>
<b>Cooling Efficiency<sup>12</sup></b>	19 SEER2 / 12 EER2	17 SEER2 / 10.5 EER2	15.2 SEER2 / 9.8 EER2	15.2 SEER2 / 12 EER2	15.2 SEER2 / 12 EER2	15.2 SEER2 / 9.8 EER2	15.2 SEER2 / 12 EER2	15.2 SEER2 / 12 EER2
<b>Nominal Sizes</b>	2 to 5 tons	2 to 5 tons	2 to 5 tons	1.5 to 5 tons	1.5 to 5 tons	2 to 5 tons	1.5 to 5 tons	1.5 to 5 tons
<b>Cabinet Type Designator</b>	iM	iM	iM	iM	iM	iC	iC	iC
<b>Cooling Capacities</b>	22.8 to 54 kBTU	22.8 to 56 kBTU	22.8 to 56 kBTU	17.1 to 55.5 kBTU	17.1 to 55.5 kBTU	22.8 to 56 kBTU	17.1 to 55.5 kBTU	17.1 to 55.5 kBTU
<b>EcoNet® Enabled</b>	Yes	Yes	Yes	No	No	No	No	No
<b>Sound Rating<sup>3</sup> (as low as)</b>	54 dB	72 dB	72 dB	69 dB	68 dB	60 dB	69 dB	68 dB
<b>Compressor Type</b>	Inverter Driven, Variable Speed	Inverter Driven, Variable Speed Twin Rotary	Inverter Driven, Variable Speed Twin Rotary	Single-Stage	Single-Stage	Inverter Driven, Variable Speed Twin Rotary	Single-Stage	Single-Stage
<b>Condenser Coil Type</b>	3/8 in.	7mm <sup>13</sup>	7mm <sup>13</sup>	7mm <sup>13</sup>	7mm <sup>13</sup>	7mm <sup>13</sup>	7mm <sup>13</sup>	7mm <sup>13</sup>
<b>ENERGY STAR® Certified<sup>10</sup></b>	Yes	No	No	Yes	Yes	No	Yes	Yes
<b>Bluetooth Connectivity<sup>11</sup></b>	Yes	Yes	Yes	No	No	Yes	No	No
<b>PlusOne® Features &amp; More (PlusOnes indicated in bold)</b>	<b>Expanded Valve Space and Triple Service Access</b> Rheem Contractor and EcoNet Apps®, built-in EcoNet and Bluetooth technology allows for easy install and diagnostics	<b>Expanded Valve Space and Triple Service Access</b> Rheem Contractor and EcoNet Apps®, built-in EcoNet and Bluetooth technology allows for easy install and diagnostics	<b>Expanded Valve Space and Triple Service Access</b> Rheem Contractor and EcoNet Apps®, built-in EcoNet and Bluetooth technology allows for easy install and diagnostics	<b>Expanded Valve Space and Triple Service Access</b>	<b>Expanded Valve Space and Triple Service Access</b>	n/a	n/a	n/a
<b>Compatible Thermostat</b>	EcoNet Smart Thermostat — Two-Stage 24V (Emergency Only)	EcoNet Smart Thermostat — Two-Stage 24V (Three-speed Operation Only)	EcoNet Smart Thermostat — Two-Stage 24V (Three-speed Operation Only)	Single-Stage 24V	Single-Stage 24V	Two-Stage 24V	Single-Stage 24V	Single-Stage 24V
<b>Sustainability Standout</b>	Yes	Yes	Yes	No	No	No	No	No
<b>Limited Warranty<sup>1</sup></b>	Parts – 10 years — Unit Replacement – 10 years (registration required)	Parts – 10 years — Unit Replacement – 10 years (registration required)	Parts – 10 years	Conditional Parts – 10 years (registration required)	Conditional Parts – 10 years (registration required)	Parts – 5 years	Parts – 5 years	Parts – 5 years





Rheem.com

## Nearly 100 Years of Innovation

As the only brand bringing innovative air and water solutions to homes and businesses around the world, Rheem continues to deliver advanced comfort, savings and experiences to our customers—just as we’ve done for nearly 100 years.



### Rheem USA

5600 Old Greenwood Road  
Fort Smith, Arkansas 72908



### Rheem Canada Ltd. / Ltée

125 Edgeware Road, Unit 1  
Brampton, Ontario L6Y 0P5

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

<sup>1</sup>Registration is required for the conditional parts and unit replacement warranty (if applicable). For complete details of the limited and conditional warranties, including applicable terms and conditions, contact your local Contractor or go to Rheem.com for a copy of the product warranty certificate. <sup>2</sup>Refer to the chart for specific warranty terms by product. <sup>3</sup>Based on Internal R&D Testing, May 2022. Sound levels are also dependent on proper installation and location of outdoor product. <sup>4</sup>Residential Building Electrification in CA: Consumer economics, greenhouse gases and grid impacts, April 2019. <sup>5</sup>Applies to RP18AZ and RA18AZ models. <sup>6</sup>Applies to the RP16AZ, RA16AZ, RA15AZ and WA15AZ models. <sup>7</sup>Applies to the RP14AZ model and WP14AZ. <sup>8</sup>Applies to RP14AZ, RA14AZ, RA13NZ, WP14AZ, WA14AZ and WA13NZ models. <sup>9</sup>WiFi broadband internet connection required. Download the EcoNet® App from the App Store® or Google Play™ to set up your EcoNet Smart Thermostat. Receipt of notifications depend on home WiFi set up. Amazon, Alexa and all related logos are trademarks of Amazon.com, Inc. or its affiliates. <sup>10</sup>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® criteria. Ask your contractor for details or visit EnergyStar.gov. <sup>11</sup>Applies to RP18AZ, RP16AZ, RA18AZ, RA16AZ, RA15AZ and WA15AZ models. <sup>12</sup>SEER (Seasonal Energy Efficiency Rating) / EER (Energy Efficiency Ratio) / HSPF (Heating Seasonal Performance Factor): The higher the SEER / EER / HSPF rating, the more efficient the unit. <sup>13</sup>5-ton models feature a 3/8 in. condenser coil.



System option with heat pumps only

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Printed in the USA | 10/22 | QG | Form No. M11-1100



The new degree of comfort.®

## Endeavor™ Line Select® Series iC Heat Pumps



### WP14AZ

Cooling Efficiencies up to: 14.3 SEER2/10.4 EER2

Heating Efficiencies up to: 7.6 HSPF2

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]



9001:2015



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## Features and Benefits

- **Fully Louvered Steel Cabinet:** Features durable construction to add protection from yard hazards, weather corrosion
- **Two-Stage Scroll Compressor<sup>1</sup>:** 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
- **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

<sup>1</sup>Does not apply to the 1.5 ton 1-stage model

# Heat Pumps

<u>W</u>	<u>P</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	Major Series	Voltage	Type	Controls	Minor Series
W - Rheem Select	P - Heat Pump	14 - 14.3 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	1 - Single-Stage 2 - 2-Stage	N - Non-Communicating	A - 1st Design

[ ] Designates Metric Conversions

AVAILABLE MODELS
WP14AZ18AJ1NA
WP14AZ18AJ2NA
WP14AZ24AJ2NA
WP14AZ30AJ2NA
WP14AZ36AJ2NA
WP14AZ42AJ2NA
WP14AZ48AJ2NA
WP14AZ60AJ2NA

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
Composite Basepan
2 Screw Control Box Access
15" Access to Internal Components
Quick release louver panel design
No fasteners to remove along bottom
Optimized Venturi Airflow
Single row condenser coil
Powder coated paint
Rust resistant screws
QR code
External gauge ports
Service trays



<b>General Data</b>								
<b>MODEL NO.</b>	<b>WP14AZ18**1</b>	<b>WP14AZ18**2</b>	<b>WP14AZ24</b>	<b>WP14AZ30</b>	<b>WP14AZ36</b>	<b>WP14AZ42</b>	<b>WP14AZ48</b>	<b>WP14AZ60</b>
<b>Nominal Tonnage</b>	1.5	1.5	2.0	2.5	3.0	3.5	4.0	5.0
<b>Valve Connections</b>								
Liquid Line O.D. – in.	3/8	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	3/4	7/8	7/8	7/8
<b>Refrigerant (R410A) furnished oz.<sup>1</sup></b>	84	88	88	108	118	148	148	247
<b>Compressor Type</b>	Scroll							
<b>Outdoor Coil</b>								
Net face area – Outer Coil	10.9	10.9	10.9	14.4	19.5	19.5	19.5	28.4
Net face area – Inner Coil								
Tube diameter – in.	0.276	0.276	0.276	0.276	0.276	0.276	0.276	0.375
Number of rows	1	1	1	1	1	1	1	1
Fins per inch	22	22	22	22	22	22	24	20
<b>Outdoor Fan</b>								
Diameter – in.	20	20	20	24	24	24	24	26
Number of blades	3	3	3	3	3	3	3	3
Motor hp	1/7	1/7	1/6	1/5	1/5	1/5	1/5	1/5
CFM	2401	2401	2620	3391	4077	4077	4096	4686
RPM	1075	1075	1075	850	850	850	850	850
watts	146	141	145	175	234	222	236	239
<b>Shipping weight – lbs.</b>	<b>COMING SOON</b>							
<b>Operating weight – lbs.</b>								

<b>Electrical Data</b>								
<b>Line Voltage Data (Volts-Phase-Hz)</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>
<b>Maximum overcurrent protection (amps)<sup>2</sup></b>	20	15	20	25	25	35	35	40
<b>Minimum circuit ampacity<sup>3</sup></b>	11	11	15	18	21	26	29	31
<b>Compressor</b>								
Rated load amps	10	8	11	13	15	20	22	24
Locked rotor amps	46	56	66	71	78	151	0	118
<b>Condenser Fan Motor</b>								
Full load amps	0.75	0.75	0.75	1.0	1.0	1.0	1.0	1.0
Locked rotor amps	1.4	1.4	1.5	2.6	2.56	2.56	2.56	2.6

<sup>1</sup>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.

<sup>2</sup>HACR type circuit breaker or fuse.

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

## Accessories

MODEL NO.	WP14AZ18**1	WP14AZ18**2	WP14AZ24	WP14AZ30	WP14AZ36	WP14AZ42	WP14AZ48	WP14AZ60	
Compressor crankcase heater*	44-17402-44	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	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	68-23427-26	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	SK-A1	
Low pressure control	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	
High pressure control	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	
Liquid Line Solenoid (24 VAC, 50/60 Hz)	Solenoid Valve	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD3T3TVLC	200RD3T3TVLC
	Solenoid Coil	61-AMG24V	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	200RD3T3TVLC	200RD3T3TVLC
	Solenoid Coil	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V
Classic Top Cap w/Label	91-101123-21	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.

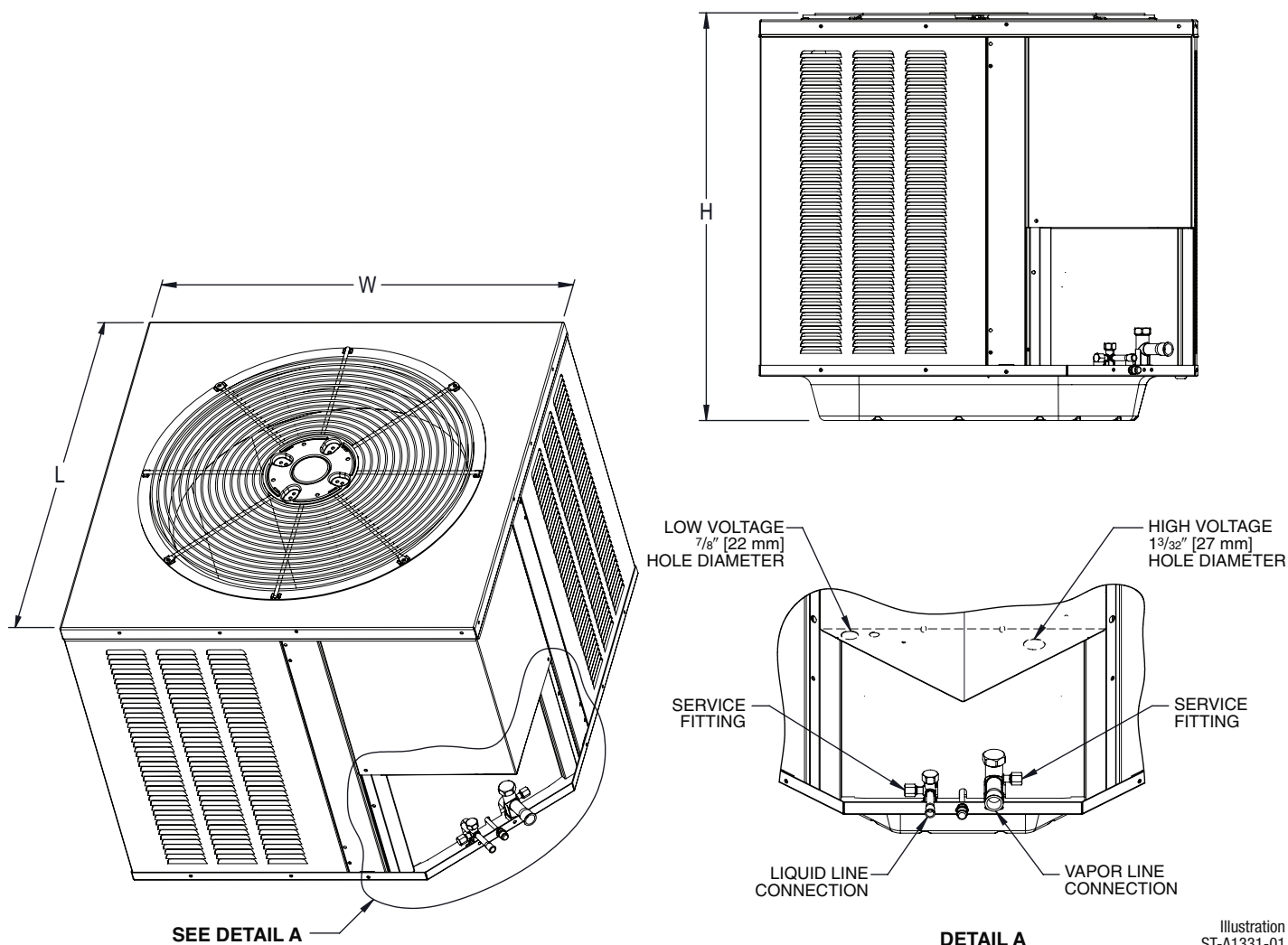
## Weighted Sound Power Level (dBA)

UNIT SIZE - VOLTAGE, SERIES	STANDARD RATING (DBA)	TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment)						
		125	250	500	1000	2000	4000	8000
WP14AZ18A	73	39.8	55	62.1	67.0	60.0	57.4	51.2
WP14AZ24A	73	40.4	55.4	62.5	65.9	58.7	56.4	48.9
WP14AZ30A	72	48.9	55.3	63.6	61.0	59.1	56.5	48.7
WP14AZ36A	72	50.1	55.8	64.4	61.5	58.7	55.1	50.9
WP14AZ42A	72	48.6	56.2	63.1	61.7	60.0	56	50.0
WP14AZ48A	74	49.3	56	64.5	64.5	60.1	54.9	47.7
WP14AZ60A	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

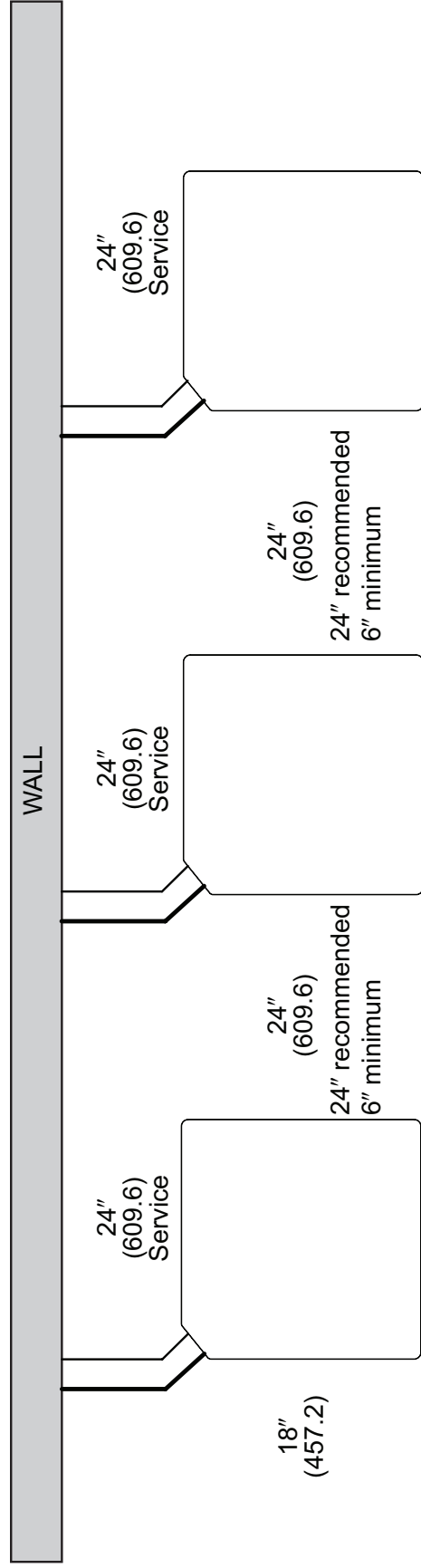
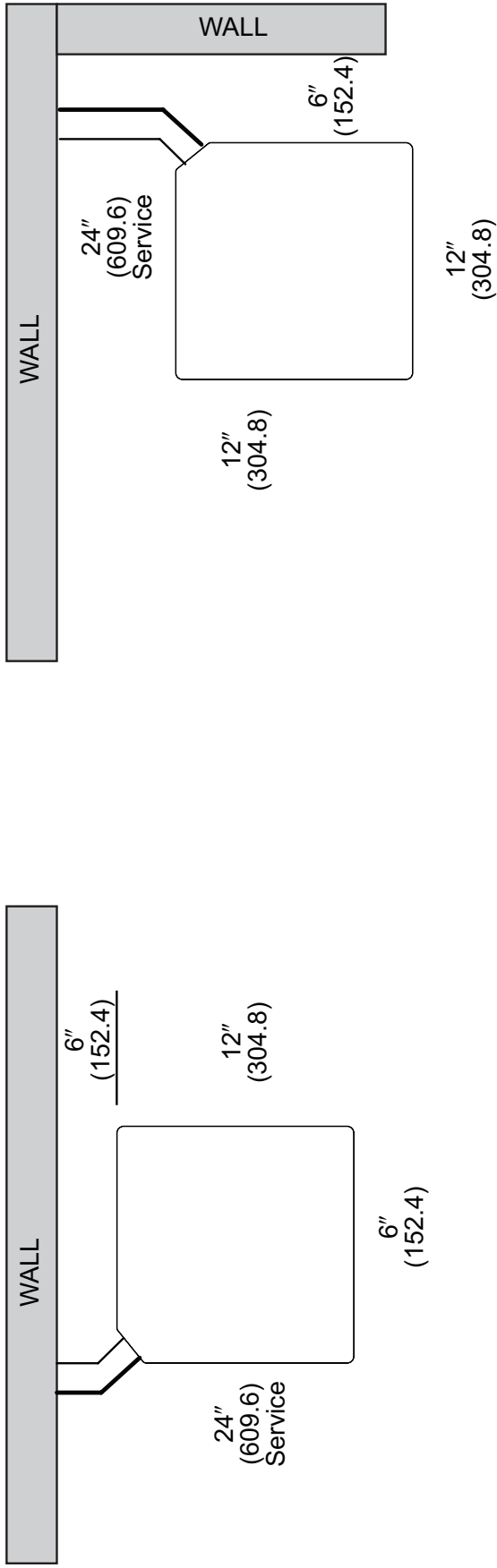
MODEL NO.	OPERATING						SHIPPING					
	H (Height)		L (Length)		W (Width)		H (Height)		L (Length)		W (Width)	
	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
WP14AZ18**1	25.17	639	29.543	750	29.543	750	27.0625	687	32.625	829	32.625	829
WP14AZ18**2	25.17	639	29.543	750	29.543	750	27.0625	687	32.625	829	32.625	829
WP14AZ24	25.17	639	29.543	750	29.543	750	27.0625	687	32.625	829	32.625	829
WP14AZ30	27.17	690	33.655	855	33.655	855	29.0625	738	36.625	930	36.625	930
WP14AZ36	35.17	893	33.655	855	33.655	855	37.0625	941	36.625	930	36.625	930
WP14AZ42	35.17	893	33.655	855	33.655	855	37.0625	941	36.625	930	36.625	930
WP14AZ48	35.17	893	33.655	855	33.655	855	37.0625	941	36.625	930	36.625	930
WP14AZ60	45.17	1147	35.543	903	35.543	903	47.0625	1195	38.625	981	38.625	981



[ ] Designates Metric Conversions

Illustration  
ST-A1331-01  
Rev. 10-20-2022

# CLEARANCES



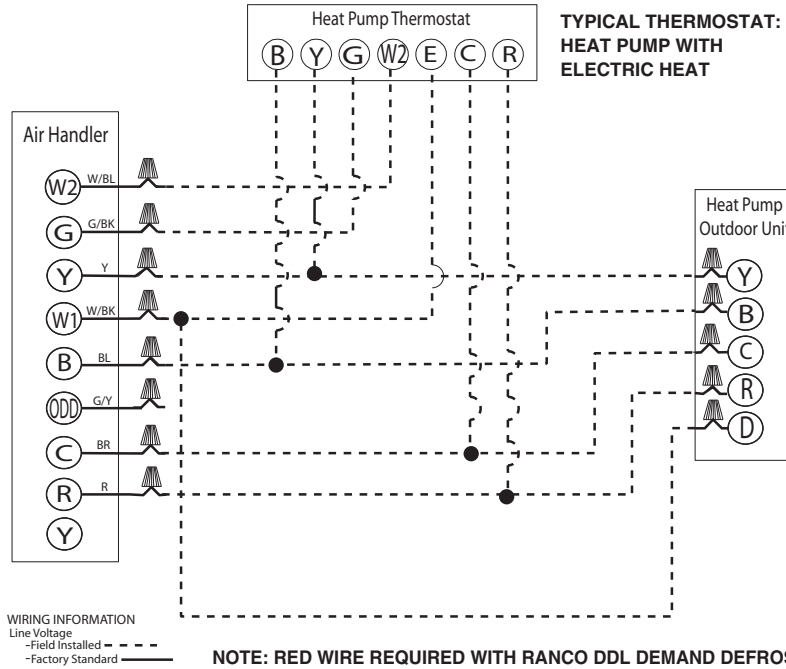
**NOTE: NUMBERS IN ( ) = mm**

**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

**FIGURE 4**  
**CONTROL WIRING FOR AIR HANDLER**



**TYPICAL THERMOSTAT:  
 HEAT PUMP WITH  
 ELECTRIC HEAT**

**NOTES:**

1. Jumper "E" to "W2" to transfer control of supplemental heat to 1st stage when the emergency heat switch is on.
2. This wire turns on heat for defrost, omit for most economical operation.
3. Wire with colored tracing stripe.

## 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 HEAT PUMPS									
UNIT SIZE	MAX. LIQUID LINE SIZE	SUCTION LINE SIZE	EQUIVALENT LENGTH (FEET)						
			<15	16-25	26-50	51-80	81-100	101-125	126-150
			MAXIMUM VERTICAL SEPARATION/CAPACITY MULTIPLIER						
1.5 Ton Single-Stage	1/4"	5/8"	15 / 1.00	25 / 1.00	50 / 0.99	60 / 0.97	45 / 0.96	10 / 0.95	N/A
	5/16"	5/8"	15 / 1.00	25 / 1.00	50 / 0.99	75 / 0.97	90 / 0.96	45 / 0.95	N/A
	3/8"	5/8"	15 / 1.00	25 / 1.00	50 / 0.99	75 / 0.97	95 / 0.96	80 / 0.95	N/A
1.5 Ton Two-Stage	1/4"	1/2"	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	50 / 0.95	N/A	N/A
	5/16"	1/2"	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	50 / 0.95	N/A	N/A
	3/8"	1/2"	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	50 / 0.95	N/A	N/A
	1/4"	5/8"	15 / 0.99	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.96	50 / 0.95	50 / 0.94
	5/16"	5/8"	15 / 0.99	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.96	50 / 0.95	50 / 0.94
	3/8"	5/8"	15 / 0.99	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.96	50 / 0.95	50 / 0.94
2 Ton Two-Stage	1/4"	5/8"	15 / 0.99	25 / 0.99	50 / 0.99	31 / 0.97	3 / 0.97	N/A	N/A
	5/16"	5/8"	15 / 0.99	25 / 0.99	50 / 0.99	50 / 0.97	50 / 0.97	50 / 0.96	50 / 0.95
	3/8"	5/8"	15 / 0.99	25 / 0.99	50 / 0.99	50 / 0.97	50 / 0.97	50 / 0.96	50 / 0.95
2.5 Ton Two-Stage	1/4"	5/8"	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	46 / 0.95	50 / 0.94	N/A
	5/16"	5/8"	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	50 / 0.95	50 / 0.94	N/A
	3/8"	5/8"	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	50 / 0.95	50 / 0.94	N/A
	1/4"	3/4"	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.96	50 / 0.95
	5/16"	3/4"	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.96	50 / 0.95
	3/8"	3/4"	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.96	50 / 0.95
3 Ton Two-Stage	5/16"	5/8"	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.95	50 / 0.93	50 / 0.91	N/A
	3/8"	5/8"	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.95	50 / 0.93	50 / 0.91	N/A
	5/16"	3/4"	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.97	50 / 0.96
	3/8"	3/4"	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.97	50 / 0.96
	1/2"	3/4"	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.97	50 / 0.96
3.5 Ton Two-Stage	3/8"	3/4"	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.97	50 / 0.96	50 / 0.96
	1/2"	3/4"	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.97	50 / 0.96	50 / 0.96
	3/8"	7/8"	15 / 1.00	25 / 0.99	15 / 1.00	50 / 0.98	50 / 0.98	50 / 0.97	50 / 0.97
	1/2"	7/8"	15 / 1.00	25 / 0.99	15 / 1.00	50 / 0.98	50 / 0.98	50 / 0.97	50 / 0.97
4 Ton Two-Stage	3/8"	3/4"	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.95	50 / 0.94	50 / 0.93
	1/2"	3/4"	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.95	50 / 0.94	50 / 0.93
	3/8"	7/8"	15 / 1.00	25 / 0.99	50 / 1.00	50 / 0.97	50 / 0.98	50 / 0.98	50 / 0.97
	1/2"	7/8"	15 / 1.00	25 / 0.99	50 / 1.00	50 / 0.97	50 / 0.98	50 / 0.98	50 / 0.97
5 Ton Two-Stage	3/8"	3/4"	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.95	50 / 0.93	50 / 0.91	N/A
	1/2"	3/4"	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.95	50 / 0.93	50 / 0.91	N/A
	3/8"	7/8"	15 / 1.00	25 / 0.99	40 / 0.99	15 / 0.99	50 / 0.98	50 / 0.97	50 / 0.96
	1/2"	7/8"	15 / 1.00	25 / 0.99	50 / 1.00	50 / 0.99	50 / 0.98	50 / 0.97	50 / 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) Always use the smallest liquid line allowable to minimize refrigerant charge.
- 4) Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.
- 5) 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 HEAT PUMPS									
UNIT SIZE	MAX. LIQUID LINE SIZE mm [in.]	SUCTION LINE SIZE mm [in.]	EQUIVALENT LENGTH (METERS)						
			0-4.5	5-7.5	8-15	15.5-23	23.5-30	30.5-38	38.5-46
			MAXIMUM VERTICAL SEPARATION/CAPACITY MULTIPLIER						
5.3 KW [1.5 Ton] Single-Stage	6.35 [1/4]	15.88 [5/8]	15 / 1.00	25 / 1.00	50 / 0.99	60 / 0.97	45 / 0.96	10 / 0.95	N/A
	7.94 [5/16]	15.88 [5/8]	15 / 1.00	25 / 1.00	50 / 0.99	75 / 0.97	90 / 0.96	45 / 0.95	N/A
	9.53 [3/8]	15.88 [5/8]	15 / 1.00	25 / 1.00	50 / 0.99	75 / 0.97	95 / 0.96	80 / 0.95	N/A
5.3 KW [1.5 Ton] Two-Stage	6.35 [1/4]	12.70 [1/2]	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	50 / 0.95	N/A	N/A
	7.94 [5/16]	12.70 [1/2]	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	50 / 0.95	N/A	N/A
	9.53 [3/8]	12.70 [1/2]	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	50 / 0.95	N/A	N/A
	6.35 [1/4]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.96	50 / 0.95	50 / 0.94
	7.94 [5/16]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.96	50 / 0.95	50 / 0.94
	9.53 [3/8]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.96	50 / 0.95	50 / 0.94
7.0 KW [2 Ton] Two-Stage	6.35 [1/4]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.99	31 / 0.97	3 / 0.97	N/A	N/A
	7.94 [5/16]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.99	50 / 0.97	50 / 0.97	50 / 0.96	50 / 0.95
	9.53 [3/8]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.99	50 / 0.97	50 / 0.97	50 / 0.96	50 / 0.95
8.8 KW [2.5 Ton] Two-Stage	6.35 [1/4]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	46 / 0.95	50 / 0.94	N/A
	7.94 [5/16]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	50 / 0.95	50 / 0.94	N/A
	9.53 [3/8]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	50 / 0.95	50 / 0.94	N/A
	6.35 [1/4]	19.05 [3/4]	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.96	50 / 0.95
	7.94 [5/16]	19.05 [3/4]	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.96	50 / 0.95
	9.53 [3/8]	19.05 [3/4]	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.96	50 / 0.95
10.6 KW [3 Ton] Two-Stage	7.94 [5/16]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.95	50 / 0.93	50 / 0.91	N/A
	9.53 [3/8]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.95	50 / 0.93	50 / 0.91	N/A
	7.94 [5/16]	19.05 [3/4]	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.97	50 / 0.96
	9.53 [3/8]	19.05 [3/4]	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.97	50 / 0.96
	12.70 [1/2]	19.05 [3/4]	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.97	50 / 0.96
12.3 KW [3.5 Ton] Two-Stage	9.53 [3/8]	19.05 [3/4]	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.97	50 / 0.96	50 / 0.96
	12.70 [1/2]	19.05 [3/4]	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.97	50 / 0.96	50 / 0.96
	9.53 [3/8]	22.23 [7/8]	15 / 1.00	25 / 0.99	15 / 1.00	50 / 0.98	50 / 0.98	50 / 0.97	50 / 0.97
	12.70 [1/2]	22.23 [7/8]	15 / 1.00	25 / 0.99	15 / 1.00	50 / 0.98	50 / 0.98	50 / 0.97	50 / 0.97
14.1 KW [4 Ton] Two-Stage	9.53 [3/8]	19.05 [3/4]	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.95	50 / 0.94	50 / 0.93
	12.70 [1/2]	19.05 [3/4]	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.95	50 / 0.94	50 / 0.93
	9.53 [3/8]	22.23 [7/8]	15 / 1.00	25 / 0.99	50 / 1.00	50 / 0.97	50 / 0.98	50 / 0.98	50 / 0.97
	12.70 [1/2]	22.23 [7/8]	15 / 1.00	25 / 0.99	50 / 1.00	50 / 0.97	50 / 0.98	50 / 0.98	50 / 0.97
17.6 KW [5 Ton] Two-Stage	9.53 [3/8]	19.05 [3/4]	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.95	50 / 0.93	50 / 0.91	N/A
	12.70 [1/2]	19.05 [3/4]	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.95	50 / 0.93	50 / 0.91	N/A
	9.53 [3/8]	22.23 [7/8]	15 / 1.00	25 / 0.99	40 / 0.99	15 / 0.99	50 / 0.98	50 / 0.97	50 / 0.96
	12.70 [1/2]	22.23 [7/8]	15 / 1.00	25 / 0.99	50 / 1.00	50 / 0.99	50 / 0.98	50 / 0.97	50 / 0.96

**NOTES:**

- 1) Do not exceed 61m linear line length.
- 2) \*Do not exceed 30m vertical separation if outdoor unit is above indoor unit.
- 3) Always use the smallest liquid line allowable to minimize refrigerant charge.
- 4) Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.
- 5) 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	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	
WP14AZ18AJ1	RH2TZ2417STANN	17,100 [5.0]	13,100 [3.8]	4,000 [1.2]	14.3	9.0	575 [271.4]	17,100 [5.0]	3.78	11,100 [3.3]	2.56	7.5	
WP14AZ18AJ2	RH2TZ2417STANN	17,100 [5.0]	13,100 [3.8]	4,000 [1.2]	14.3	9.0	550 [259.6]	17,100 [5.0]	3.58	11,000 [3.2]	2.52	7.5	
WP14AZ24AJ2	RH2TZ2417STANN	22,800 [6.7]	17,500 [5.1]	5,300 [1.6]	14.3	9.0	775 [365.8]	22,800 [6.7]	3.51	14,600 [4.3]	2.55	7.5	
WP14AZ30AJ2	RH2TZ3617STANN	28,600 [8.4]	21,900 [6.4]	6,700 [2.0]	14.3	9.0	950 [448.4]	28,600 [8.4]	3.56	18,200 [5.3]	2.57	7.5	
WP14AZ36AJ2	RH2TZ3617STANN	34,200 [10.0]	26,200 [7.7]	8,000 [2.3]	14.3	9.0	1,050 [495.5]	34,200 [10.0]	3.27	23,600 [6.9]	2.49	7.5	
WP14AZ42AJ2	RH2TZ4821STANN	39,500 [11.6]	30,300 [8.9]	9,200 [2.7]	14.3	9.0	1,275 [601.7]	39,500 [11.6]	3.69	25,500 [7.5]	2.67	7.5	
WP14AZ48AJ2	RH2TZ4821STANN	45,500 [13.3]	34,900 [10.2]	10,600 [3.1]	14.3	9.0	1,450 [684.3]	45,500 [13.0]	3.65	27,500 [8.1]	2.54	7.5	
WP14AZ60AJ2	RH2TZ6024STANN	55,500 [16.3]	42,600 [12.5]	12,900 [3.8]	14.3	9.0	1,800 [849.5]	55,500 [16.3]	2.66	34,000 [10.0]	2.56	7.5	

**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](http://www.ahridirectory.org).

[ ] Designates Metric Conversions





The new degree of comfort.®

## Endeavor™ Line *Classic*® Series iM Heat Pumps



### RP14AZ

Cooling Efficiencies up to: 14.3 SEER2/10.4 EER2

Heating Efficiency: 7.6 HSPF

Nominal Sizes: 1.5 to 5 Tons [5.3 to 17.6 kW]

Cooling & Heating Capacities: 17.1 kBTU to 55.5 kBTU



9001:2015



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## Features and Benefits

- **Swept Wing Fan Technology<sup>1</sup>:** Features quieter operation and improved unit acoustics
- **Two-Stage Scroll Compressor<sup>2</sup>:** 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
- **Inverted Reversing Valve:** Allows for faster heat transfer with gravity assist shifting and reduced joint stress for increased reliability
- **PlusOne® Expanded Valve Space:** 3 in. – 4 in. – 5 in. service valve space—provides a minimum working area of 27-square inches for easier access
- **PlusOne® Triple Service Access:** 15 in. wide, industry leading corner service access, two fastener, removeable corner and individual louver panels—makes repairs easier and faster

<sup>1</sup>Does not apply to the 3.5 and 4 Ton

<sup>2</sup>Does not apply to the 1.5 Ton 1-stage model

# Heat Pumps

<u>R</u>	<u>P</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	Major Series	Voltage	Type	Controls	Minor Series
R - Rheem	P - Heat Pump	14 - 14.3 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	1 - 1-Stage 2 - 2-Stage	N - Non-Comm.	A - 1st Design

[ ] Designates Metric Conversions

AVAILABLE MODELS	DESCRIPTION
RP14AZ18AJ1NA	Endeavor™ Line <i>Classic</i> ® Series 1 1/2 ton 14.3 SEER2 1-Stage iM Heat Pump-208/230/1/60
RP14AZ18AJ2NA	Endeavor™ Line <i>Classic</i> ® Series 1 1/2 ton 14.3 SEER2 2-Stage iM Heat Pump-208/230/1/60
RP14AZ24AJ2NA	Endeavor™ Line <i>Classic</i> ® Series 2 ton 14.3 SEER2 2-Stage Heat iM Pump-208/230/1/60
RP14AZ30AJ2NA	Endeavor™ Line <i>Classic</i> ® Series 2 1/2 ton 14.3 SEER2 2-Stage iM Heat Pump-208/230/1/60
RP14AZ36AJ2NA	Endeavor™ Line <i>Classic</i> ® Series 3 ton 14.3 SEER2 2-Stage iM Heat Pump-208/230/1/60
RP14AZ42AJ2NA	Endeavor™ Line <i>Classic</i> ® Series 3 1/2 ton 14.3 SEER2 2-Stage iM Heat Pump-208/230/1/60
RP14AZ48AJ2NA	Endeavor™ Line <i>Classic</i> ® Series 4 ton 14.3 SEER2 2-Stage iM Heat Pump-208/230/1/60
RP14AZ60AJ2NA	Endeavor™ Line <i>Classic</i> ® Series 5 ton 14.3 SEER2 2-Stage iM Heat Pump-208/230/1/60

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
Composite Basepan
2 Screw Control Box Access
15" Access to Internal Components
Quick release louver panel design
No fasteners to remove along bottom
Optimized Venturi Airflow
Single row condenser coil
Powder coated paint
Rust resistant screws
QR code
External gauge ports
Service trays
External gauge ports
Service trays



<b>General Data</b>								
<b>GENERAL DATA</b>								
<b>MODEL NO.</b>	<b>RP14AZ18**1</b>	<b>RP14AZ18**2</b>	<b>RP14AZ24</b>	<b>RP14AZ30</b>	<b>RP14AZ36</b>	<b>RP14AZ42</b>	<b>RP14AZ48</b>	<b>RP14AZ60</b>
<b>Nominal Tonnage</b>	1.5	1.5	2.0	2.5	3.0	3.5	4.0	5.0
<b>Valve Connections</b>								
Liquid Line O.D. – in.	3/8	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	3/4	7/8	7/8	7/8
<b>Refrigerant (R410A) furnished oz.<sup>1</sup></b>	84	88	88	108	118	148	148	247
<b>Compressor Type</b>	Scroll							
<b>Outdoor Coil</b>								
Net face area – Outer Coil	10.9	10.9	10.9	14.4	19.5	19.5	19.5	28.4
Net face area – Inner Coil								
Tube diameter – in.	0.276	0.276	0.276	0.276	0.276	0.276	0.276	0.375
Number of rows	1	1	1	1	1	1	1	1
Fins per inch	22	22	22	22	22	22	24	20
<b>Outdoor Fan</b>								
Diameter – in.	20	20	20	24	24	24	24	26
Number of blades	3	3	3	3	3	3	3	3
Motor hp	1/7	1/7	1/6	1/5	1/5	1/5	1/5	1/5
CFM	2401	2401	2620	3391	4077	4077	4096	4686
RPM	1075	1075	1075	850	850	850	850	850
Watts	146	141	145	175	234	222	236	239
<b>Shipping weight – lbs.</b>	157	157	158	196	209	239	245	285
<b>Operating weight – lbs.</b>	150	150	151	189	202	232	238	278

<b>Electrical Data</b>								
<b>Line Voltage Data (Volts-Phase-Hz)</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>
<b>Maximum overcurrent protection (amps)<sup>2</sup></b>	20	15	20	25	25	35	35	40
<b>Minimum circuit ampacity<sup>3</sup></b>	11	11	15	18	21	26	29	31
<b>Compressor</b>								
Rated load amps	10	8	11	13	15	20	22	24
Locked rotor amps	46	56	66	71	78	151	0	118
<b>Condenser Fan Motor</b>								
Full load amps	0.75	0.75	0.75	1.0	1.0	1.0	1.0	1.0
Locked rotor amps	1.4	1.4	1.5	2.6	2.56	2.56	2.56	2.6

<sup>1</sup>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.

<sup>2</sup>HACR type circuit breaker or fuse.

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

## Accessories

MODEL NO.	RP14AZ18**1	RP14AZ18**2	RP14AZ24	RP14AZ30	RP14AZ36	RP14AZ42	RP14AZ48	RP14AZ60	
Compressor crankcase heater*	44-17402-44	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	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	68-23427-26	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	SK-A1	
Low pressure control	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	
High pressure control	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	
Liquid Line Solenoid (24 VAC, 50/60 Hz)	Solenoid Valve	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD3T3TVLC	200RD3T3TVLC
	Solenoid Coil	61-AMG24V	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	200RD3T3TVLC	200RD3T3TVLC
	Solenoid Coil	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V
Classic Top Cap w/Label	91-101123-21	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.

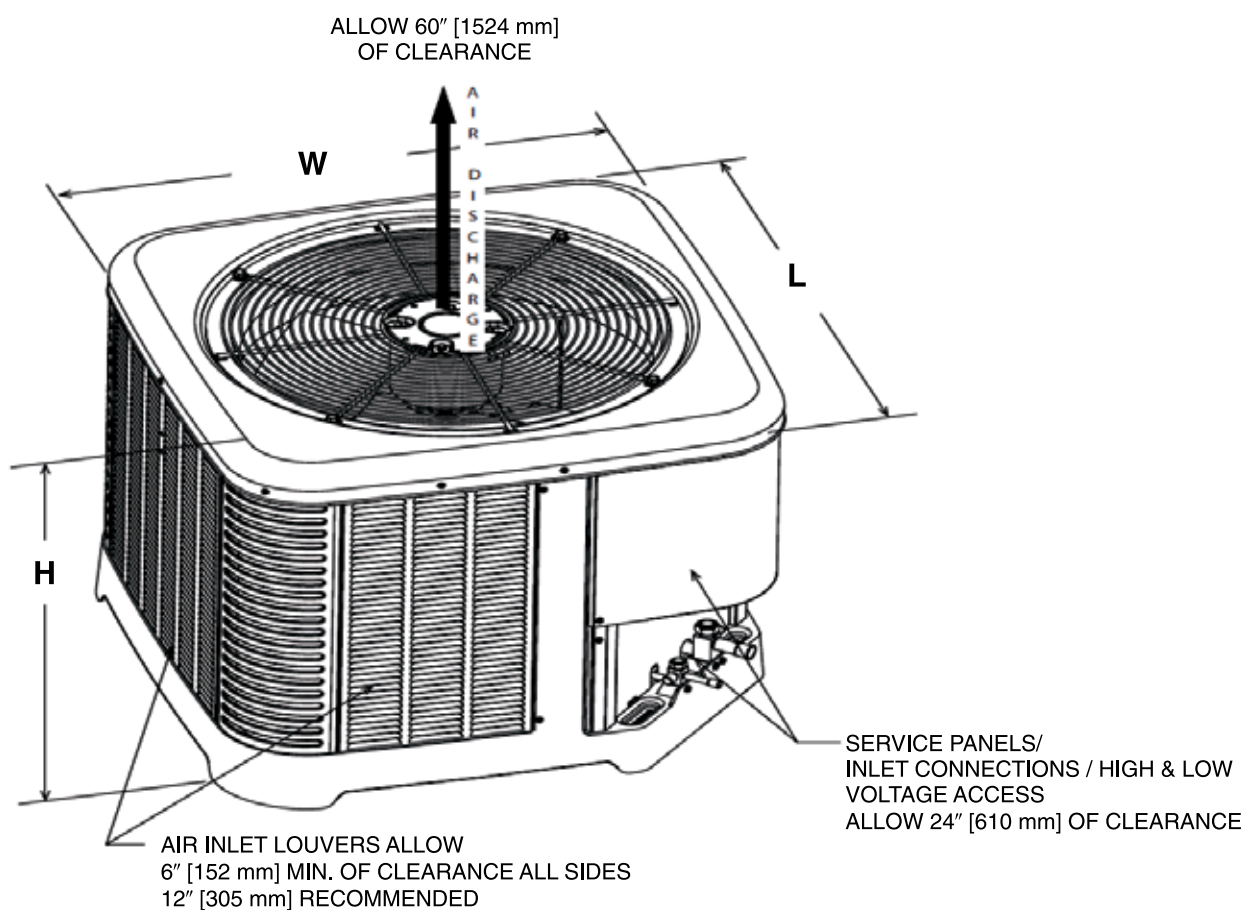
## Weighted Sound Power Level (dBA)

UNIT SIZE - VOLTAGE, SERIES	STANDARD RATING (DBA)	TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment)						
		125	250	500	1000	2000	4000	8000
RP14AZ18A	73	39.8	55	62.1	67.0	60.0	57.4	51.2
RP14AZ24A	73	40.4	55.4	62.5	65.9	58.7	56.4	48.9
RP14AZ30A	72	48.9	55.3	63.6	61.0	59.1	56.5	48.7
RP14AZ36A	72	50.1	55.8	64.4	61.5	58.7	55.1	50.9
RP14AZ42A	72	48.6	56.2	63.1	61.7	60.0	56	50.0
RP14AZ48A	74	49.3	56	64.5	64.5	60.1	54.9	47.7
RP14AZ60A	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

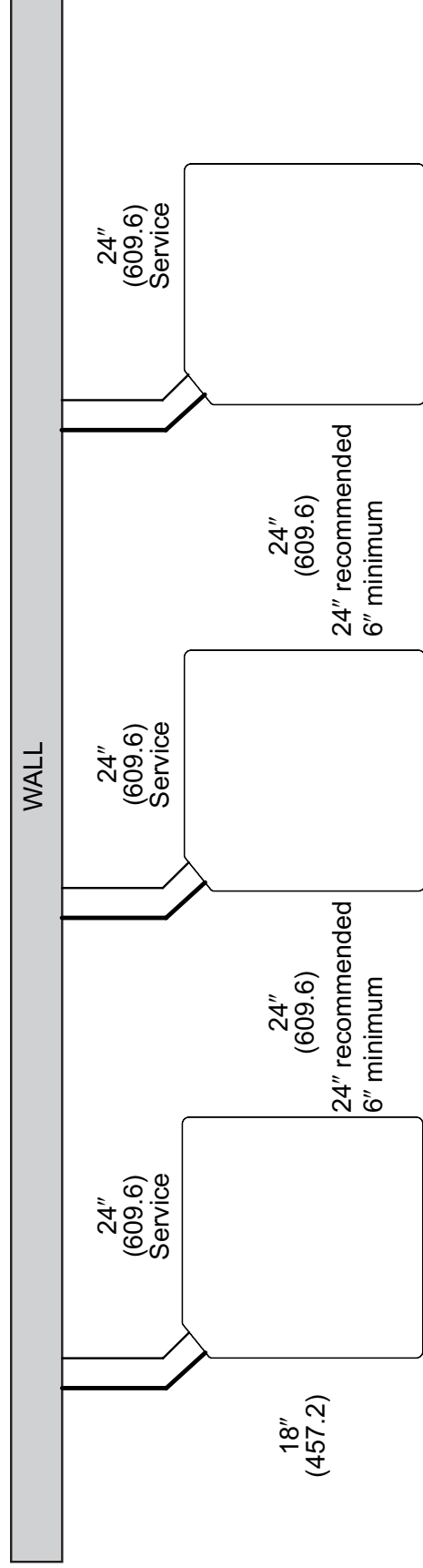
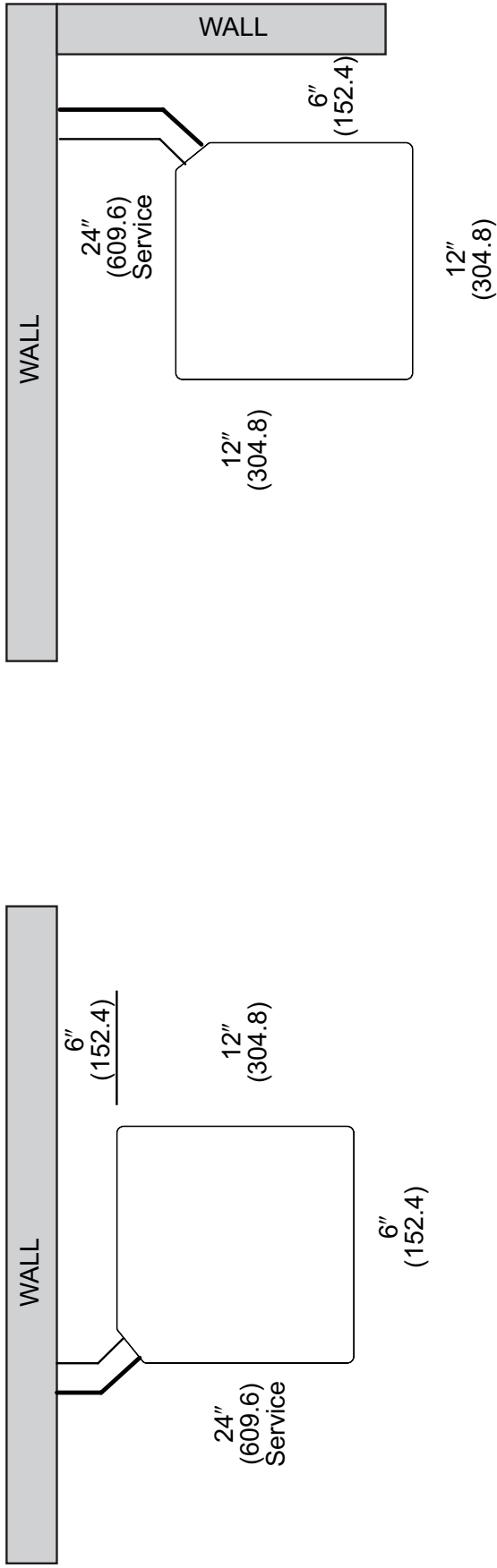
MODEL NO.	OPERATING						SHIPPING					
	H (Height)		L (Length)		W (Width)		H (Height)		L (Length)		W (Width)	
	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
RP14AZ18**1	25.00	635	29.75	756	29.75	756	27.90	709	33.25	845	33.25	845
RP14AZ18**2	25.00	635	29.75	756	29.75	756	27.90	709	33.25	845	33.25	845
RP14AZ24	25.00	635	29.75	756	29.75	756	27.90	709	33.25	845	33.25	845
RP14AZ30	27.00	686	33.75	857	33.75	857	30.08	764	37.64	956	37.64	956
RP14AZ36	35.00	889	33.75	857	33.75	857	38.35	974	37.64	956	37.64	956
RP14AZ42	35.00	889	33.75	857	33.75	857	38.35	974	37.64	956	37.64	956
RP14AZ48	35.00	889	33.75	857	33.75	857	38.35	974	37.64	956	37.64	956
RP14AZ60	45.00	1143	35.75	908	35.75	908	48.50	1232	39.37	1000	39.37	1000



[ ] Designates Metric Conversions

ST-A1226-02-00

# CLEARANCES



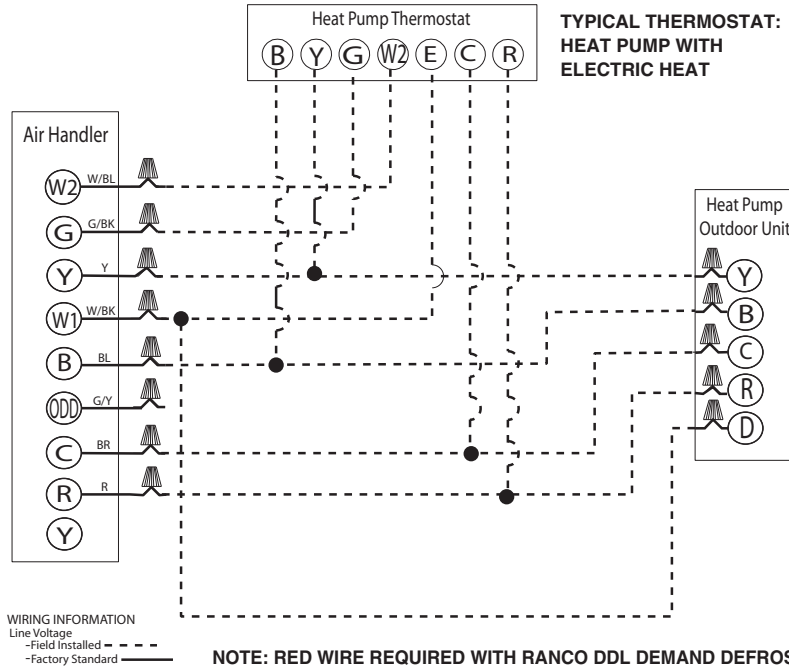
**NOTE: NUMBERS IN ( ) = mm**

**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

**FIGURE 4**  
**CONTROL WIRING FOR AIR HANDLER**



**TYPICAL THERMOSTAT:  
 HEAT PUMP WITH  
 ELECTRIC HEAT**

**NOTES:**

1. Jumper "E" to "W2" to transfer control of supplemental heat to 1st stage when the emergency heat switch is on.
2. This wire turns on heat for defrost, omit for most economical operation.
3. Wire with colored tracing stripe.

## 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 HEAT PUMPS									
UNIT SIZE	ALLOWABLE LIQUID LINE SIZE	ALLOWABLE SUCTION LINE SIZE	EQUIVALENT LENGTH (FEET)						
			< 15	16-25	26-50	51-75	76-100	101-125	126-150
			MAXIMUM VERTICAL RISE (OUTDOOR UNIT BELOW INDOOR UNIT) * / CAPACITY MULTIPLIERER						
1.5 Ton Single Stage	1/4"	5/8"	15 / 1.00	25 / 1.00	50 / 0.99	60 / 0.97	45 / 0.96	10 / 0.95	N/A
	5/16"	5/8"	15 / 1.00	25 / 1.00	50 / 0.99	75 / 0.97	90 / 0.96	45 / 0.95	N/A
	3/8"	5/8"	15 / 1.00	25 / 1.00	50 / 0.99	75 / 0.97	95 / 0.96	80 / 0.95	N/A
1.5 Ton Two Stage	1/4"	1/2"	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	50 / 0.95	N/A	N/A
	5/16"	1/2"	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	50 / 0.95	N/A	N/A
	3/8"	1/2"	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	50 / 0.95	N/A	N/A
	1/4"	5/8"	15 / 0.99	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.96	50 / 0.95	50 / 0.94
	5/16"	5/8"	15 / 0.99	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.96	50 / 0.95	50 / 0.94
	3/8"	5/8"	15 / 0.99	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.96	50 / 0.95	50 / 0.94
2 Ton Two Stage	1/4"	5/8"	15 / 0.99	25 / 0.99	50 / 0.99	31 / 0.97	3 / 0.97	N/A	N/A
	5/16"	5/8"	15 / 0.99	25 / 0.99	50 / 0.99	50 / 0.97	50 / 0.97	50 / 0.96	50 / 0.95
	3/8"	5/8"	15 / 0.99	25 / 0.99	50 / 0.99	50 / 0.97	50 / 0.97	50 / 0.96	50 / 0.95
2.5 Ton Two Stage	1/4"	5/8"	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	46 / 0.95	50 / 0.94	N/A
	5/16"	5/8"	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	50 / 0.95	50 / 0.94	N/A
	3/8"	5/8"	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	50 / 0.95	50 / 0.94	N/A
	1/4"	3/4"	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.96	50 / 0.95
	5/16"	3/4"	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.96	50 / 0.95
	3/8"	3/4"	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.96	50 / 0.95
3 Ton Two Stage	5/16"	5/8"	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.95	50 / 0.93	50 / 0.91	N/A
	3/8"	5/8"	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.95	50 / 0.93	50 / 0.91	N/A
	5/16"	3/4"	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.97	50 / 0.96
	3/8"	3/4"	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.97	50 / 0.96
	1/2"	3/4"	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.97	50 / 0.96
3.5 Ton Two Stage	3/8"	3/4"	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.97	50 / 0.96	50 / 0.96
	1/2"	3/4"	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.97	50 / 0.96	50 / 0.96
	3/8"	7/8"	15 / 1.00	25 / 0.99	15 / 1.00	50 / 0.98	50 / 0.98	50 / 0.97	50 / 0.97
	1/2"	7/8"	15 / 1.00	25 / 0.99	15 / 1.00	50 / 0.98	50 / 0.98	50 / 0.97	50 / 0.97
4 Ton Two Stage	3/8"	3/4"	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.95	50 / 0.94	50 / 0.93
	1/2"	3/4"	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.95	50 / 0.94	50 / 0.93
	3/8"	7/8"	15 / 1.00	25 / 0.99	50 / 1.00	50 / 0.97	50 / 0.98	50 / 0.98	50 / 0.97
	1/2"	7/8"	15 / 1.00	25 / 0.99	50 / 1.00	50 / 0.97	50 / 0.98	50 / 0.98	50 / 0.97
5 Ton Two Stage	3/8"	3/4"	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.95	50 / 0.93	50 / 0.91	N/A
	1/2"	3/4"	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.95	50 / 0.93	50 / 0.91	N/A
	3/8"	7/8"	15 / 1.00	25 / 0.99	40 / 0.99	15 / 0.99	50 / 0.98	50 / 0.97	50 / 0.96
	1/2"	7/8"	15 / 1.00	25 / 0.99	50 / 1.00	50 / 0.99	50 / 0.98	50 / 0.97	50 / 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) Always use the smallest liquid line allowable to minimize refrigerant charge.
- 4) Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.
- 5) 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 HEAT PUMPS									
UNIT SIZE	ALLOWABLE LIQUID LINE SIZE MM [IN.]	ALLOWABLE SUCTION LINE SIZE MM [IN.]	EQUIVALENT LENGTH (METERS)						
			0-4.5	5-7.5	8-15	15.5-23	23.5-30	30.5-38	38.5-46
			MAXIMUM VERTICAL RISE (OUTDOOR UNIT BELOW INDOOR UNIT) * / CAPACITY MULTIPLIER						
5.3 KW [1.5 Ton] Single Stage	6.35 [1/4]	15.88 [5/8]	15 / 1.00	25 / 1.00	50 / 0.99	60 / 0.97	45 / 0.96	10 / 0.95	N/A
	7.94 [5/16]	15.88 [5/8]	15 / 1.00	25 / 1.00	50 / 0.99	75 / 0.97	90 / 0.96	45 / 0.95	N/A
	9.53 [3/8]	15.88 [5/8]	15 / 1.00	25 / 1.00	50 / 0.99	75 / 0.97	95 / 0.96	80 / 0.95	N/A
5.3 KW [1.5 Ton] Two Stage	6.35 [1/4]	12.7 [1/2]	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	50 / 0.95	N/A	N/A
	7.94 [5/16]	12.7 [1/2]	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	50 / 0.95	N/A	N/A
	9.53 [3/8]	12.7 [1/2]	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	50 / 0.95	N/A	N/A
	6.35 [1/4]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.96	50 / 0.95	50 / 0.94
	7.94 [5/16]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.96	50 / 0.95	50 / 0.94
	9.53 [3/8]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.96	50 / 0.95	50 / 0.94
7.0 KW [2 Ton] Two Stage	6.35 [1/4]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.99	31 / 0.97	3 / 0.97	N/A	N/A
	7.94 [5/16]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.99	50 / 0.97	50 / 0.97	50 / 0.96	50 / 0.95
	9.53 [3/8]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.99	50 / 0.97	50 / 0.97	50 / 0.96	50 / 0.95
8.8 KW [2.5 Ton] Two Stage	6.35 [1/4]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	46 / 0.95	50 / 0.94	N/A
	7.94 [5/16]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	50 / 0.95	50 / 0.94	N/A
	9.53 [3/8]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.96	50 / 0.95	50 / 0.94	N/A
	6.35 [1/4]	19.05 [3/4]	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.96	50 / 0.95
	7.94 [5/16]	19.05 [3/4]	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.96	50 / 0.95
	9.53 [3/8]	19.05 [3/4]	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.96	50 / 0.95
10.6 KW [3 Ton] Two Stage	7.94 [5/16]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.95	50 / 0.93	50 / 0.91	N/A
	9.53 [3/8]	15.88 [5/8]	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.95	50 / 0.93	50 / 0.91	N/A
	7.94 [5/16]	19.05 [3/4]	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.97	50 / 0.96
	9.53 [3/8]	19.05 [3/4]	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.97	50 / 0.96
	12.7 [1/2]	19.05 [3/4]	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.98	50 / 0.98	50 / 0.97	50 / 0.96
12.3 KW [3.5 Ton] Two Stage	9.53 [3/8]	19.05 [3/4]	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.97	50 / 0.96	50 / 0.96
	12.7 [1/2]	19.05 [3/4]	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.97	50 / 0.96	50 / 0.96
	9.53 [3/8]	22.23 [7/8]	15 / 1.00	25 / 0.99	15 / 1.00	50 / 0.98	50 / 0.98	50 / 0.97	50 / 0.97
	12.7 [1/2]	22.23 [7/8]	15 / 1.00	25 / 0.99	15 / 1.00	50 / 0.98	50 / 0.98	50 / 0.97	50 / 0.97
14.1 KW [4 Ton] Two Stage	9.53 [3/8]	19.05 [3/4]	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.95	50 / 0.94	50 / 0.93
	12.7 [1/2]	19.05 [3/4]	15 / 1.00	25 / 0.99	50 / 0.98	50 / 0.97	50 / 0.95	50 / 0.94	50 / 0.93
	9.53 [3/8]	22.23 [7/8]	15 / 1.00	25 / 0.99	50 / 1.00	50 / 0.97	50 / 0.98	50 / 0.98	50 / 0.97
	12.7 [1/2]	22.23 [7/8]	15 / 1.00	25 / 0.99	50 / 1.00	50 / 0.97	50 / 0.98	50 / 0.98	50 / 0.97
17.6 KW [5 Ton] Two Stage	9.53 [3/8]	19.05 [3/4]	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.95	50 / 0.93	50 / 0.91	N/A
	12.7 [1/2]	19.05 [3/4]	15 / 0.99	25 / 0.99	50 / 0.97	50 / 0.95	50 / 0.93	50 / 0.91	N/A
	9.53 [3/8]	22.23 [7/8]	15 / 1.00	25 / 0.99	40 / 0.99	15 / 0.99	50 / 0.98	50 / 0.97	50 / 0.96
	12.7 [1/2]	22.23 [7/8]	15 / 1.00	25 / 0.99	50 / 1.00	50 / 0.99	50 / 0.98	50 / 0.97	50 / 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) Always use the smallest liquid line allowable to minimize refrigerant charge.
- 4) Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.
- 5) 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	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	
RP14AZ18AJ1	RH2TZ2417STANN	17,100 [5.0]	13,100 [3.8]	4,000 [1.2]	14.3	9.0	575 [271.4]	17,100 [5.0]	3.78	11,100 [3.3]	2.56	7.5	
RP14AZ18AJ2	RH2TZ2417STANN	17,100 [5.0]	13,100 [3.8]	4,000 [1.2]	14.3	9.0	550 [259.6]	17,100 [5.0]	3.58	11,000 [3.2]	2.52	7.5	
RP14AZ24AJ2	RH2TZ2417STANN	22,800 [6.7]	17,500 [5.1]	5,300 [1.6]	14.3	9.0	775 [365.8]	22,800 [6.7]	3.51	14,600 [4.3]	2.55	7.5	
RP14AZ30AJ2	RH2TZ3617STANN	28,600 [8.4]	21,900 [6.4]	6,700 [2.0]	14.3	9.0	950 [448.4]	28,600 [8.4]	3.56	18,200 [5.3]	2.57	7.5	
RP14AZ36AJ2	RH2TZ3617STANN	34,200 [10.0]	26,200 [7.7]	8,000 [2.3]	14.3	9.0	1,050 [495.5]	34,200 [10.0]	3.27	23,600 [6.9]	2.49	7.5	
RP14AZ42AJ2	RH2TZ4821STANN	39,500 [11.6]	30,300 [8.9]	9,200 [2.7]	14.3	9.0	1,275 [601.7]	39,500 [11.6]	3.69	25,500 [7.5]	2.67	7.5	
RP14AZ48AJ2	RH2TZ4821STANN	45,500 [13.3]	34,900 [10.2]	10,600 [3.1]	14.3	9.0	1,450 [684.3]	45,500 [13.0]	3.65	27,500 [8.1]	2.54	7.5	
RP14AZ60AJ2	RH2TZ6024STANN	55,500 [16.3]	42,600 [12.5]	12,900 [3.8]	14.3	9.0	1,800 [849.5]	55,500 [16.3]	2.66	34,000 [10.0]	2.56	7.5	

**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, will be accessible from the AHRI website: [www.ahridirectory.org](http://www.ahridirectory.org) later this year.

[ ] Designates Metric Conversions



PRELIMINARY

The new degree of comfort.®

## Endeavor™ Line *Classic Plus*® Series iM Heat Pumps



### RP15AZ

Cooling Efficiency: 15.2 SEER2 / 11.7 EER2

Heating Efficiency: 7.8 HSPF

Nominal Sizes: 1.5 to 5 Tons [5.3 to 17.6 kW]

Cooling & Heating Capacities: 13.36 kBTU to 45.6 kBTU



9001:2015



*\*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](http://www.energystar.gov).*



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## Features and Benefits

- **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
- **7mm Condenser Copper Coil<sup>1</sup>:** 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
- **PlusOne® Expanded Valve Space:** 3 in. – 4 in. – 5 in. service valve space — provides a minimum working area of 27-square inches for easier access
- **PlusOne® Triple Service Access:** 15" wide, industry leading corner service access, two fastener, removeable corner and individual louver panels — makes repairs easier and faster

<sup>1</sup>Does not apply to the 5 ton model

# Heat Pumps

<u>R</u>	<u>P</u>	<u>15</u>	<u>A</u>	<u>Z</u>	<u>18</u>	<u>A</u>	<u>J</u>	<u>2</u>	<u>N</u>	<u>A</u>
Brand	Product Category	SEER2	Region	Refrigerant	Capacity	Major Series	Voltage	Type	Controls	Minor Series
R - Rheem	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-Comm.	A - 1st Design

[ ] Designates Metric Conversions

AVAILABLE MODELS	DESCRIPTION
RP15AZ18AJ2NA	Endeavor™ Line <i>Classic® Plus</i> Series 1 1/2 ton 15.2 SEER2 2-Stage iM Heat Pump-208/230/1/60
RP15AZ24AJ2NA	Endeavor™ Line <i>Classic® Plus</i> Series 2 ton 15.2 SEER2 2-Stage iM Heat Pump-208/230/1/60
RP15AZ30AJ2NA	Endeavor™ Line <i>Classic® Plus</i> Series 2 1/2 ton 15.2 SEER2 2-Stage iM Heat Pump-208/230/1/60
RP15AZ36AJ2NA	Endeavor™ Line <i>Classic® Plus</i> Series 3 ton 15.2 SEER2 2-Stage iM Heat Pump-208/230/1/60
RP15AZ42AJ2NA	Endeavor™ Line <i>Classic® Plus</i> Series 3 1/2 ton 15.2 SEER2 2-Stage iM Heat Pump-208/230/1/60
RP15AZ48AJ2NA	Endeavor™ Line <i>Classic® Plus</i> Series 4 ton 15.2 SEER2 2-Stage iM Heat Pump-208/230/1/60
RP15AZ60AJ2NA	Endeavor™ Line <i>Classic® Plus</i> Series 5 ton 15.2 SEER2 2-Stage iM Heat Pump-208/230/1/60

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
Composite Basepan
2 Screw Control Box Access
15" Access to Internal Components
Quick release louver panel design
No fasteners to remove along bottom
Optimized Venturi Airflow
Single row condenser coil
Powder coated paint
Rust resistant screws
QR code
External gauge ports
Service trays

<b>General Data</b>							
<b>MODEL NO.</b>	<b>(-)P15AZ 18AJ2NA</b>	<b>(-)P15AZ 24AJ2NA</b>	<b>(-)P15AZ 30AJ2NA</b>	<b>(-)P15AZ 36AJ2NA</b>	<b>(-)P15AZ 42AJ2NA</b>	<b>(-)P15AZ 48AJ2NA</b>	<b>(-)P15AZ 60AJ2NA</b>
<b>Nominal Tonnage</b>							
<b>Valve Connections</b>							
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
<b>Refrigerant (R410A) furnished oz.<sup>1</sup></b>	118	118	120	127	143	146	220
<b>Compressor Type</b>	2-stage Scroll						
<b>Outdoor Coil</b>							
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
<b>Outdoor Fan</b>							
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
<b>Shipping weight – lbs.</b>	157	157	209	221	247	247	298
<b>Operating weight – lbs.</b>	150	150	202	214	240	240	291

<b>Electrical Data</b>							
<b>Line Voltage Data (Volts-Phase-Hz)</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>
<b>Maximum overcurrent protection (amps)<sup>2</sup></b>	15	25	30	30	45	45	50
<b>Minimum circuit ampacity<sup>3</sup></b>	11	15	18	20	26	28	31
<b>Compressor</b>							
Rated load amps	8	11	14	15	20	21	24
Locked rotor amps	56	61	87	102	151	0	151
<b>Condenser Fan Motor</b>							
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

<sup>1</sup>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.

<sup>2</sup>HACR type circuit breaker or fuse.

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

## Accessories

MODEL NO.		(-)P15AZ18	(-)P15AZ24	(-)P15AZ30	(-)P15AZ36	(-)P15AZ42	(-)P15AZ48	(-)P15AZ60
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	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
Low pressure control		Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard
High pressure control		Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard	Factory Standard
Liquid Line Solenoid (24 VAC, 50/60 Hz)	Solenoid Valve	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD3T3TVLC	200RD3T3TVLC
	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	200RD3T3TVLC	200RD3T3TVLC
	Solenoid Coil	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V
Classic Top Cap w/Label		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.

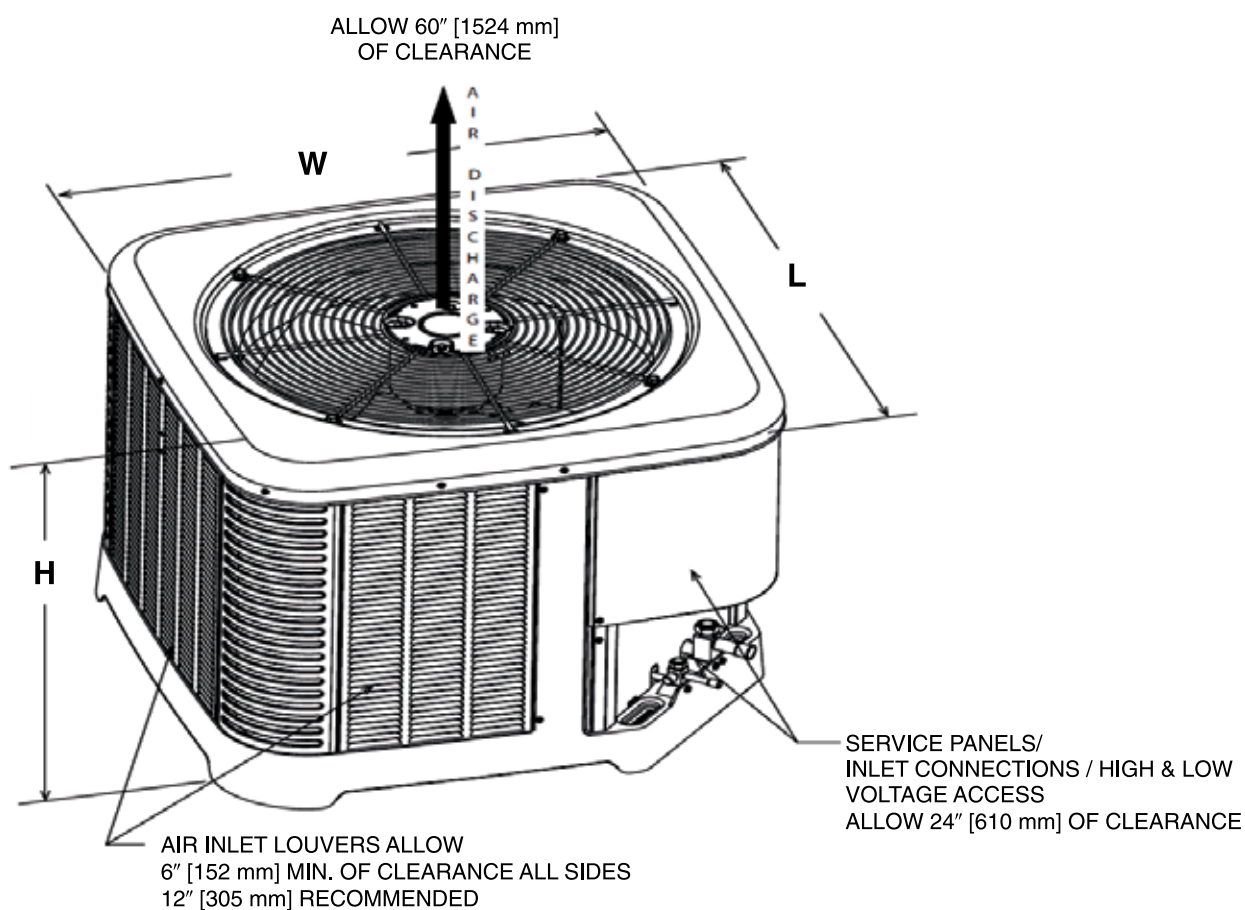
## Weighted Sound Power Level (dBA)

UNIT SIZE - VOLTAGE, SERIES	STANDARD RATING (DBA)	TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment)						
		125	250	500	1000	2000	4000	8000
(-)P15AZ18A	73	39.8	55	62.1	67.0	60.0	57.4	51.2
<b>COMING SOON</b>								
(-)P15AZ48A	74	49.3	56	64.5	64.5	60.1	54.9	47.7
(-)P15AZ60A	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

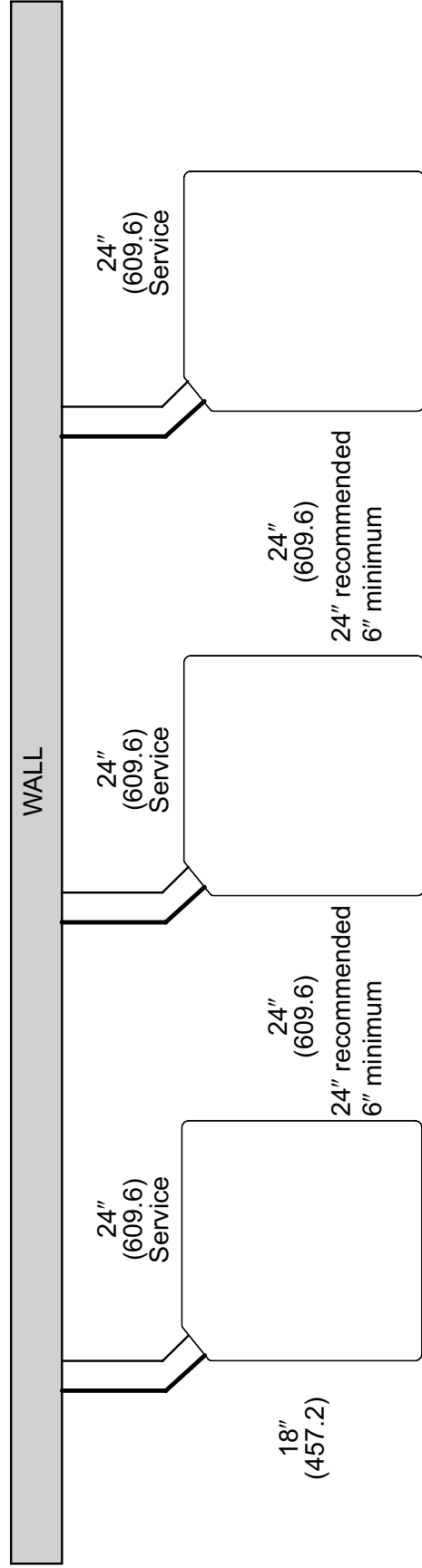
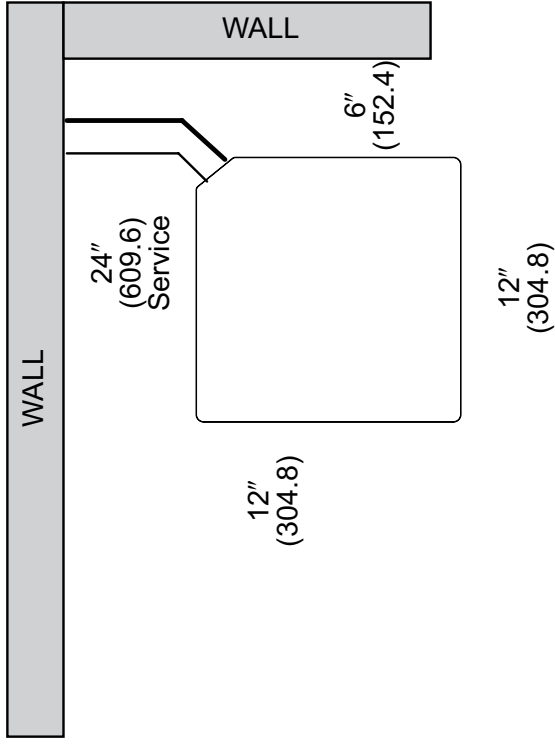
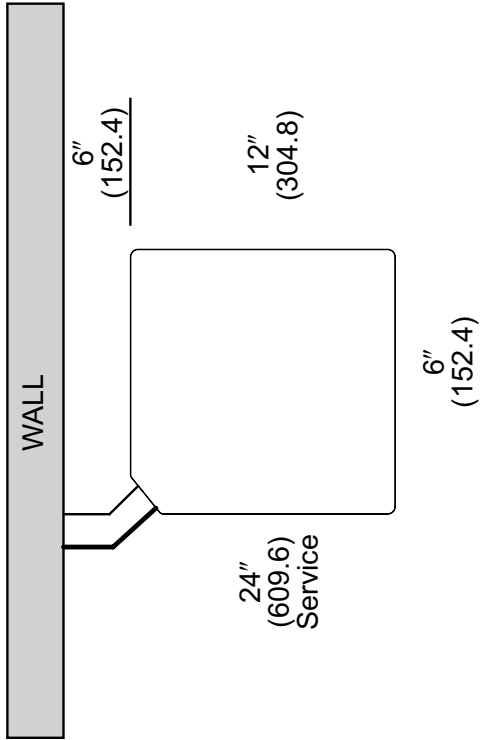
MODEL NO.	OPERATING						SHIPPING					
	H (Height)		L (Length)		W (Width)		H (Height)		L (Length)		W (Width)	
	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
(-)P15AZ18AJ2NA	25.00	635.00	29.75	755.65	29.75	755.65	27.90	708.66	33.25	844.55	33.25	844.55
(-)P15AZ24AJ2NA	25.00	635.00	29.75	755.65	29.75	755.65	27.90	708.66	33.25	844.55	33.25	844.55
(-)P15AZ30AJ2NA	35.00	889.00	33.75	857.25	33.75	857.25	38.35	974.09	37.64	956.06	37.64	956.06
(-)P15AZ36AJ2NA	39.00	990.60	33.75	857.25	33.75	857.25	42.35	1075.69	37.64	956.06	37.64	956.06
(-)P15AZ42AJ2NA	39.00	990.60	33.75	857.25	33.75	857.25	42.35	1075.69	37.64	956.06	37.64	956.06
(-)P15AZ48AJ2NA	39.00	990.60	33.75	857.25	33.75	857.25	42.35	1075.69	37.64	956.06	37.64	956.06
(-)P15AZ60AJ2NA	51.00	1295.40	35.75	908.05	35.75	908.05	54.50	1384.30	39.37	1000.00	39.37	1000.00



[ ] Designates Metric Conversions

ST-A1226-02-00

# CLEARANCES



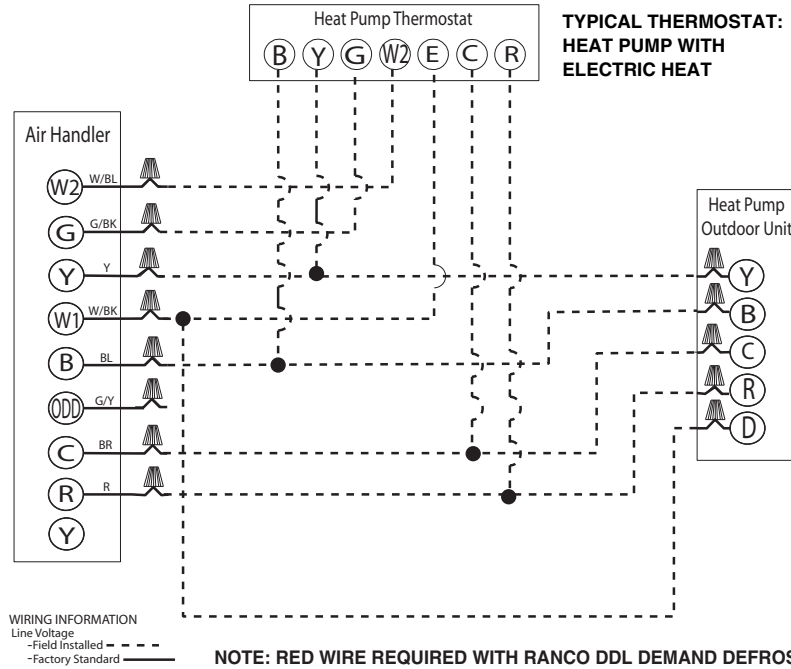
**NOTE: NUMBERS IN ( ) = mm**

**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

**FIGURE 4**  
**CONTROL WIRING FOR AIR HANDLER**



**TYPICAL THERMOSTAT:  
 HEAT PUMP WITH  
 ELECTRIC HEAT**

**NOTES:**

1. Jumper "E" to "W2" to transfer control of supplemental heat to 1st stage when the emergency heat switch is on.
2. This wire turns on heat for defrost, omit for most economical operation.
3. Wire with colored tracing stripe.

## 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

SINGLE AND TWO-STAGE HEAT PUMPS									
UNIT SIZE	MAX. LIQUID LINE SIZE	SUCTION LINE SIZE	OUTDOOR UNIT ABOVE OR BELOW INDOOR UNIT EQUIVALENT LENGTH IN FEET						
			0-15	16-25	26-50	51-80	81-100	101-125	126-150
			MAXIMUM VERTICAL SEPARATION/CAPACITY MULTIPLIER						
1.5 TON	3/8"	1/2"	15 / 1	25 / 1	50 / 0.99	80 / 0.97	100 / 0.97	115 / 0.96	115 / 0.95
		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
2 TON	3/8"	5/8"	15 / 1	25 / 1	50 / 0.99	80 / 0.98	100 / 0.97	100 / 0.96	95 / 0.95
		3/4"	15 / 1	25 / 1	50 / 1	80 / 0.99	100 / 0.99	100 / 0.99	95 / 0.98
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
		3/4"	15 / 1	25 / 1	50 / 0.99	80 / 0.99	95 / 0.98	90 / 0.98	85 / 0.97
3 TON	3/8"	5/8"	15 / 1	25 / 0.99	50 / 0.97	80 / 0.95	85 / 0.94	80 / 0.92	75 / 0.9
		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
3.5 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
		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
		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
		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 Equivalent 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									
UNIT SIZE	MAX. LIQUID LINE SIZE	SUCTION LINE SIZE	OUTDOOR UNIT ABOVE OR BELOW INDOOR UNIT EQUIVALENT LENGTH IN METERS						
			0-5	5.5-8	8.5-15	15.5-24	24.5-30	30.5-38	38.5-46
			MAXIMUM VERTICAL SEPARATION/CAPACITY MULTIPLIER						
1.5 TON	3/8"	1/2"	5 / 1	8 / 1	15 / 0.99	24 / 0.97	30 / 0.97	35 / 0.96	35 / 0.95
		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
2 TON	3/8"	5/8"	5 / 1	8 / 1	15 / 0.99	24 / 0.98	30 / 0.97	30 / 0.96	29 / 0.95
		3/4"	5 / 1	8 / 1	15 / 1	24 / 0.99	30 / 0.99	30 / 0.99	29 / 0.98
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
		3/4"	5 / 1	8 / 1	15 / 0.99	24 / 0.99	29 / 0.98	27 / 0.98	26 / 0.97
3 TON	3/8"	5/8"	5 / 1	8 / 0.99	15 / 0.97	24 / 0.95	26 / 0.94	24 / 0.92	23 / 0.9
		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
		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
		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
		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 Equivalent 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 3/8".
- 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 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		
(-)P15AZ18AJ2N	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]	2.6	7.8		
(-)P15AZ24AJ2N	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]	2.8	7.8		
(-)P15AZ30AJ2N	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]	2.6	7.8		
(-)P15AZ36AJ2N	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]	2.7	7.8		
(-)P15AZ42AJ2N	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]	2.9	7.8		
(-)P15AZ48AJ2N	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]	2.9	7.8		
(-)P15AZ60AJ2N	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]	3.0	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, will be accessible from the AHRI website: [www.ahridirectory.org](http://www.ahridirectory.org) later this year.

[ ] Designates Metric Conversions



The new degree of comfort.®

## Endeavor™ Line *Prestige*® Series Heat Pumps



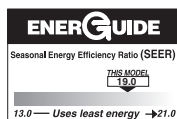
### RP18AZ

Cooling Efficiencies up to: 20.0 SEER2/12.5 EER2

Heating Efficiency: 8.5 HSPF2

Nominal Sizes: 2 to 5 Ton [7.0 to 17.6 kW]

Cooling Capacities 22.8 to 55.0 kBTU [6.7 to 16.1 kW]



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

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***\*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](http://www.energystar.gov).***

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## Features and Benefits

- **EcoNet® Enabled:** Automatic system configuration and optimization
- **PlusOne® Diagnostics & Bluetooth®<sup>1</sup> Connectivity:** With the Rheem Contractor & EcoNet® Apps, built-in technology makes advanced set-up, monitoring, troubleshooting, and repairing the product easier than ever before
- **Variable Speed Scroll Compressor & Inverter Drive:**
  - Features variable speed operation from 40 to 100% capacity with the EcoNet® Smart Thermostat
  - Offers overdrive capability up to 115% to maintain performance in extreme conditions
  - Provides precise temperature control, advanced humidity control and greater efficiency
- **Brushless DC Condenser Motors (BLDC):** Enhances reliability and allows for easier serviceability
- **Swept Wing Fan Technology:** Features quieter operation and improved unit acoustics

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# Heat Pumps

<u>R</u>	<u>P</u>	<u>18</u>	<u>A</u>	<u>Z</u>	<u>24</u>	<u>A</u>	<u>J</u>	<u>V</u>	<u>N</u>	<u>A</u>
Brand	Product Category	SEER2	Region	Refrigerant	Capacity	Major Series	Voltage	Type	Controls	Minor Series
Rheem	P - Heat Pump	18 - 18 SEER2	A - All Regions	Z - R-410A	24 - 24,000 [7.03 kW] 36 - 36,000 [10.55 kW] 48 - 48,000 [14.07 kW] 60 - 60,000 [17.58 kW]	A - 1st Design	J - 208/230/1/60	V - Fully Variable	C - Communicating	A - 1st Design

[ ] Designates Metric Conversions

AVAILABLE MODELS	DESCRIPTION
RP18AZ24AJVCA	Endeavor™ Line <i>Prestige</i> ® Series 2 ton EcoNet® Enabled Inverter Driven Variable Speed iM Heat Pump - 208/230/1/60
RP18AZ36AJVCA	Endeavor™ Line <i>Prestige</i> ® Series 3 ton EcoNet® Enabled Inverter Driven Variable Speed iM Heat Pump - 208/230/1/60
RP18AZ48AJVCA	Endeavor™ Line <i>Prestige</i> ® Series 4 ton EcoNet® Enabled Inverter Driven Variable Speed iM Heat Pump - 208/230/1/60
RP18AZ60AJVCA	Endeavor™ Line <i>Prestige</i> ® Series 5 ton EcoNet® Enabled Inverter Driven Variable Speed iM Heat Pump - 208/230/1/60

STANDARD EQUIPMENT
R-410A Refrigerant
EcoNet® Enabled
Variable Speed Compressor
Compressor Sound Blanket
Variable speed outdoor fan motor
Swept wing fan blade
Field Installed Filter Drier
Front Seating Service Valves
Internal Pressure Relief Valve
Internal Thermal Overload
Low Ambient capability
3–4–5 Expanded Valve Space
Composite Basepan
1" Screw Control Box Access
Quick release louver panel design
No fasteners to remove along bottom
Optimized Venturi Airflow
Single row condenser coil
Powder coated paint
Rust resistant screws
QR code
External gauge ports
Service trays

<b>General Data</b>				
<b>GENERAL DATA</b>				
<b>MODEL NO.</b>	<b>RP18AZ24AJVCA</b>	<b>RP18AZ36AJVCA</b>	<b>RP18AZ48AJVCA</b>	<b>RP18AZ60AJVCA</b>
<b>Nominal Tonnage</b>	2.0	3.0	4.0	5.0
<b>Valve Connections</b>				
Liquid Line O.D. – in.	3/8	3/8	3/8	3/8
Suction Line O.D. – in.	3/4	3/4	7/8	7/8
<b>Refrigerant (R410A) furnished oz.<sup>1</sup></b>	210	212	222	252
<b>Compressor Type</b>	Scroll			
<b>Outdoor Coil</b>				
Net face area – Outer Coil	28.3	32.5	32.5	32.5
Net face area – Inner Coil	—	—	—	—
Tube diameter – in.	0.375	0.375	0.375	0.375
Number of rows	1	1	1	1
Fins per inch	20	20	20	20
<b>Outdoor Fan</b>				
Diameter – in.	26	24	24	26
Number of blades	3	3	3	3
Motor hp	1/2	1/2	1/2	1/2
<b>Shipping weight – lbs.</b>	282	306	306	309
<b>Operating weight – lbs.</b>	278	298	298	301

<b>Electrical Data</b>				
<b>Line Voltage Data (Volts-Phase-Hz)</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>
<b>Maximum overcurrent protection (amps)<sup>2</sup></b>	30	50	60	60
<b>Minimum circuit ampacity<sup>3</sup></b>	22	32	37	42
<b>Compressor</b>				
Rated load amps	15.4	24	28.1	31.7
Locked rotor amps	35	50	50	50

<sup>1</sup>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.

<sup>2</sup>HACR type circuit breaker or fuse.

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

## Accessories

MODEL NO.	RP2024	RP2036	RP2048	RP2060
EcoNet® Smart Thermostat	RETST800SYS	RETST800SYS	RETST800SYS	RETST800SYS
Heat Pump Riser 6 in.	686020	686020	686020	686020
Supply/Return Sensor	RXHT-A02	RXHT-A02	RXHT-A02	RXHT-A02

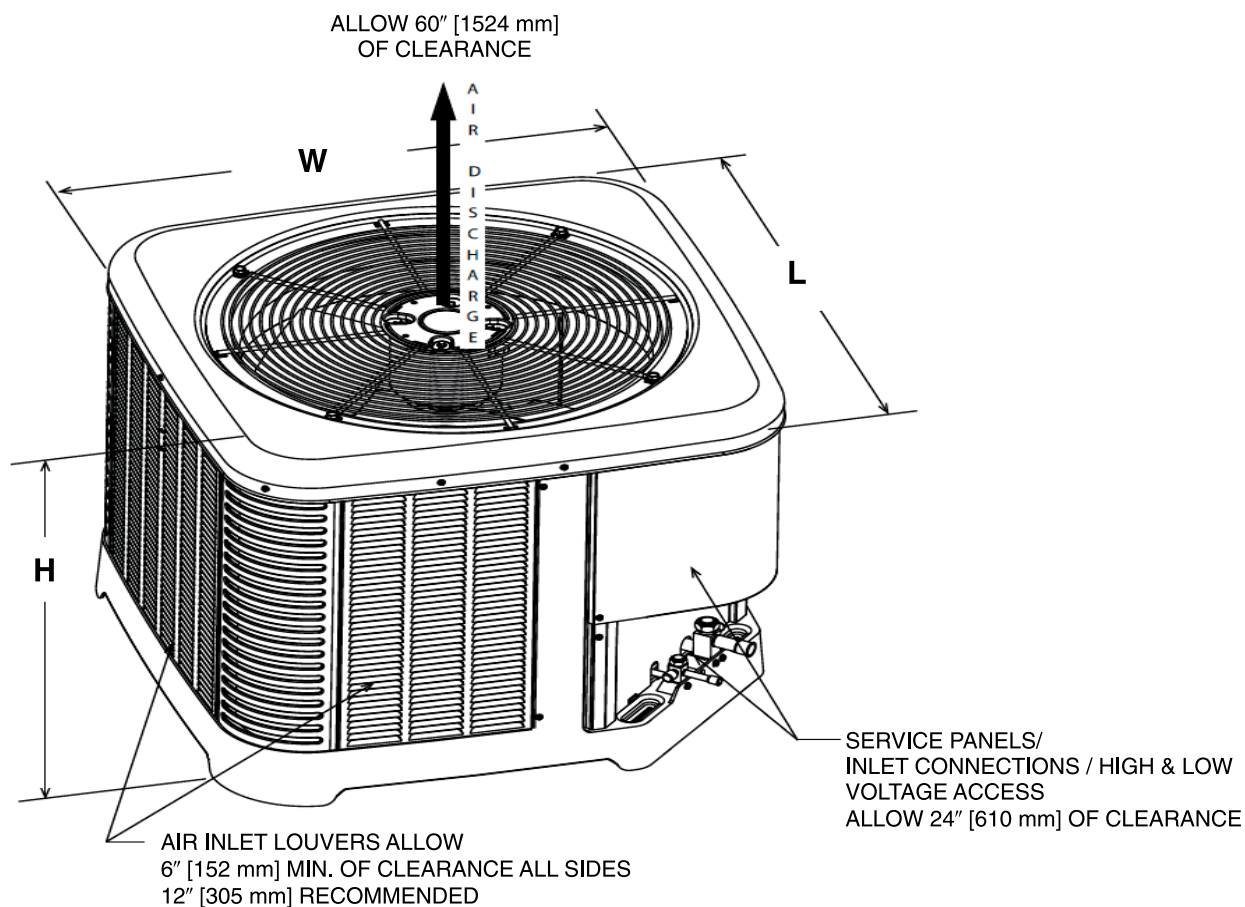
## Weighted Sound Power Level (dBA)

RP18AZ SOUND POWER LEVEL										
MODEL	SOUND POWER LEVEL [DB(A)] LOW SPEED/ HIGH SPEED	FULL OCTAVE LINEAR SOUND POWER LEVEL DB - CENTER FREQUENCY - HZ								SOUND POWER LEVEL [DB(A)] WITH SOUND BLANKET
		125	250	500	1000	2000	4000	6300	8000	
RP18AZ24AJVCA	59	34.8	39.7	50.8	48.4	42.5	40.2	34.6	34.5	Sound Blankets – Standard
	69	45.0	50.6	59.5	57.9	56.6	49.5	45.7	44.8	
RP18AZ36AJVCA	60	33.6	38.3	57.6	48.2	43.6	39.7	43.0	39.3	
	70	44.8	51.1	60.8	60.1	56.2	50.3	49.9	48.3	
RP18AZ48AJVCA	59	34.0	38.9	52.3	48.0	43.5	39.8	42.2	37.3	
	73	48.5	54.4	65.4	63.1	58.0	55.0	53.3	51.6	
RP18AZ60AJVCA	58	36.0	39.3	51.4	46.2	43.8	43.0	41.3	40.2	
	73	49.8	54.0	68.0	59.2	55.9	53.7	50.7	49.3	

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

## Unit Dimensions

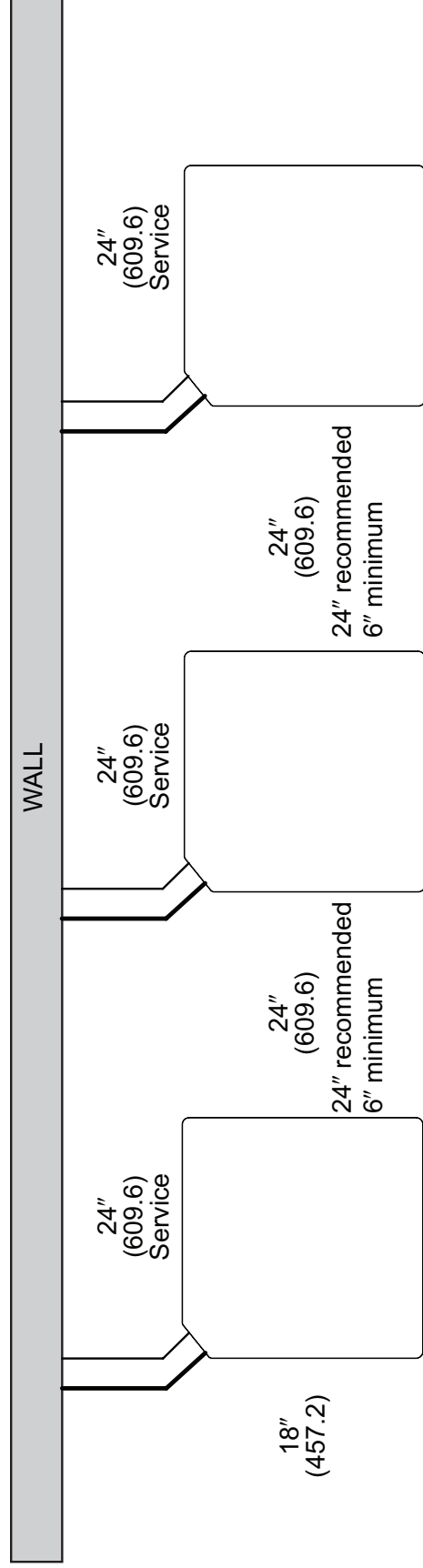
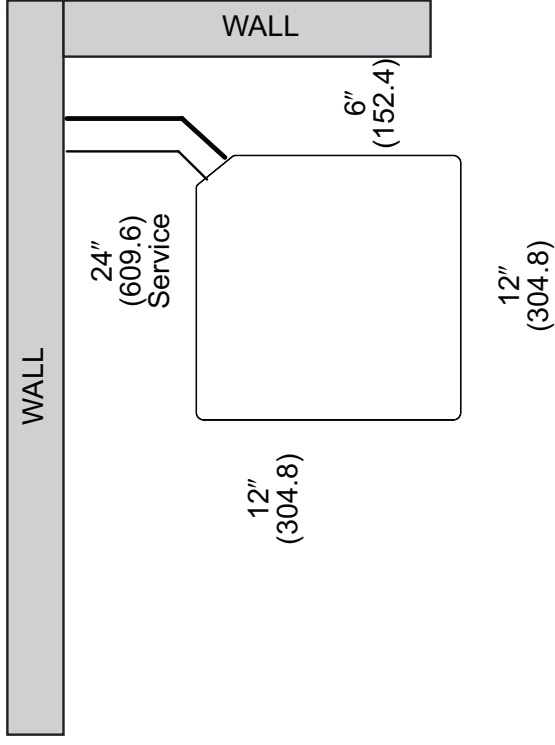
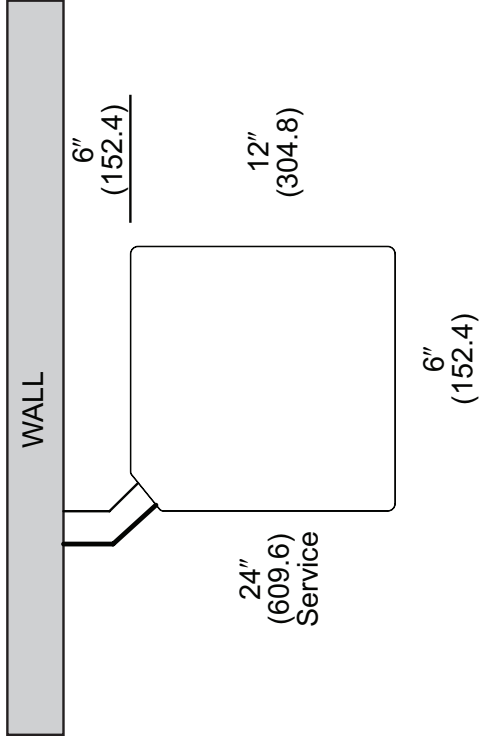
MODEL NO.	OPERATING						SHIPPING					
	H (Height)		L (Length)		W (Width)		H (Height)		L (Length)		W (Width)	
	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
RP18AZ24AJVCA	45.17	1147	36.13	918	36.13	918	48.18	1224	39.37	1000	39.64	1007
RP18AZ36AJVCA	51.17	1300	36.13	918	36.13	918	53.56	1360	39.37	1000	39.64	1007
RP18AZ48AJVCA	51.17	1300	36.13	918	36.13	918	53.56	1360	39.37	1000	39.64	1007
RP18AZ60AJVCA	51.17	1300	36.13	918	36.13	918	53.56	1360	39.37	1000	39.64	1007



[ ] Designates Metric Conversions

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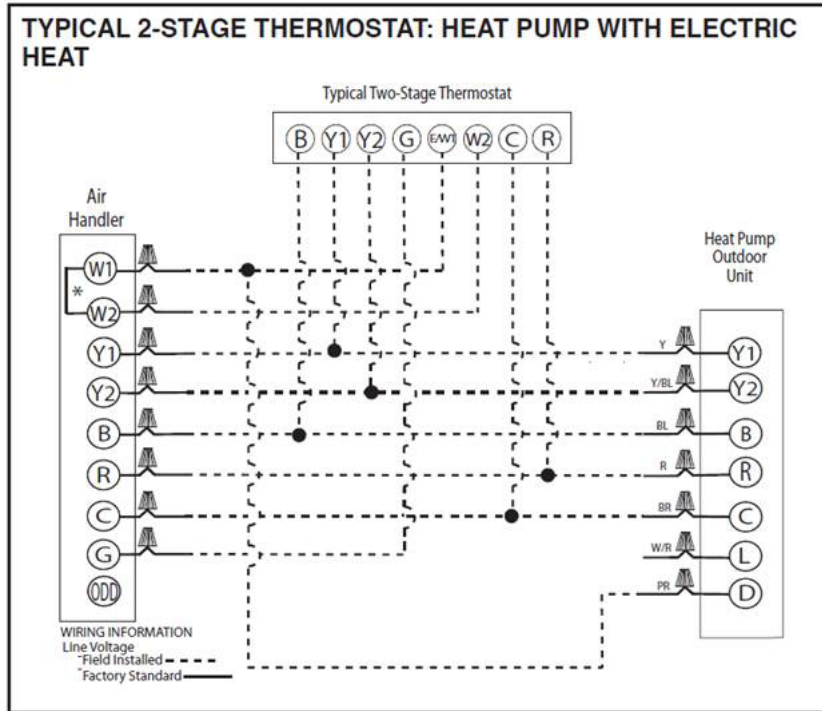
# CLEARANCES



**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

18 SEER2 VARIABLE SPEED HEAT PUMPS								
UNIT SIZE	ALLOWABLE LIQUID LINE SIZE	ALLOWABLE VAPOR LINE SIZE	OUTDOOR UNIT ABOVE OR BELOW INDOOR UNIT EQUIVALENT LENGTH (FEET)					
			< 25	26-50	51-75	76-100	101-125	126-150
			MAXIMUM VERTICAL SEPARATION/CAPACITY MULTIPLIER					
2.0 TON *SEE NOTE 3	1/4"	5/8"	25/1.00	50/0.99	33/0.98	60/0.97	NR	NR
	5/16"	5/8"	25/1.00	50/0.99	50/0.98	50/0.97	50/0.96	50/0.95
	3/8"	5/8"	25/1.00	50/0.99	50/0.98	50/0.97	50/0.96	50/0.95
	1/4"	3/4**	25/1.00	50/1.00	33/0.99	60/0.99	NR	NR
	5/16"	3/4**	25/1.00	50/1.00	50/0.99	50/0.99	50/0.99	50/0.98
	3/8"	3/4**	25/1.00	50/1.00	50/0.99	50/0.99	50/0.99	50/0.98
3 TON	5/16"	5/8"	25/0.99	50/0.97	50/0.95	50/0.93	36/0.91	NR
	3/8"	5/8"	25/0.99	50/0.97	50/0.95	50/0.93	50/0.91	NR
	5/16"	3/4"	25/1.00	50/0.99	50/0.99	50/0.98	36/0.97	20/0.96
	3/8"	3/4"	25/1.00	50/0.99	50/0.99	50/0.98	50/0.97	50/0.96
	1/2"	3/4"	25/1.00	50/0.99	50/0.99	50/0.98	50/0.97	50/0.96
4 TON	3/8"	3/4"	25/0.99	50/0.98	50/0.96	50/0.95	50/0.93	50/0.92
	1/2"	3/4"	25/0.99	50/0.98	50/0.96	50/0.95	50/0.93	50/0.92
	3/8"	7/8"	25/1.00	50/0.99	50/0.99	50/0.98	50/0.98	50/0.97
	1/2"	7/8"	25/1.00	50/0.99	50/0.99	50/0.98	50/0.98	50/0.97
5 TON	3/8"	3/4"	25/0.98	50/0.97	50/0.95	50/0.93	46/0.91	NR
	1/2"	3/4"	25/0.98	50/0.97	50/0.95	50/0.93	50/0.91	NR
	3/8"	7/8"	25/0.99	50/0.99	50/0.98	50/0.97	50/0.96	38/0.95
	1/2"	7/8"	25/0.99	50/0.99	50/0.98	50/0.97	50/0.96	50/0.95
	3/8"	1-1/8**	25/1.00	50/1.00	50/1.00	50/0.99	50/0.99	38/0.99
	1/2"	1-1/8***	25/1.00	50/1.00	50/1.00	50/0.99	50/0.99	50/0.99

**NOTES:**

- 1) Do not exceed 150 ft. linear line length.
- 2) Do not exceed 50 ft. vertical separation between indoor and outdoor units.
- 3) \*3/4" vapor line should only be used for 2 ton systems if outdoor unit is below or at same level as indoor unit to assure proper oil return.
- 4) \*\*1-1/8" vapor line should only be used for 5 ton systems if outdoor unit is below or at same level as indoor unit to assure proper oil return.
- 5) Always use the smallest liquid line allowable to minimize refrigerant charge.
- 6) Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.
- 7) Applications shaded in dark gray are not recommended due to excessive liquid or suction pressure drop.



## Refrigerant Line Size Information (Con't.)

18 SEER2 VARIABLE SPEED HEAT PUMPS								
UNIT SIZE	ALLOWABLE LIQUID LINE SIZE	ALLOWABLE VAPOR LINE SIZE	OUTDOOR UNIT ABOVE OR BELOW INDOOR UNIT EQUIVALENT LENGTH (METERS)					
			< 8	9-15	16-23	24-30	31-38	39-46
			MAXIMUM VERTICAL SEPARATION/CAPACITY MULTIPLIER					
7.0 kW [2.0 TON] *SEE NOTE 3	6.35 [1/4]	15.88 [5/8]	8/1.00	15/0.99	10/0.98	20/0.97	NR	NR
	7.94 [5/16]	15.88 [5/8]	8/1.00	15/0.99	15/0.98	15/0.97	15/0.96	15/0.95
	9.53 [3/8]	15.88 [5/8]	8/1.00	15/0.99	15/0.98	15/0.97	15/0.96	15/0.95
	6.35 [1/4]	19.05 [3/4]	8/1.00	15/0.99	10/0.99	20/0.99	NR	NR
	7.94 [5/16]	19.05 [3/4]	8/1.00	15/0.99	15/0.99	15/0.99	15/0.99	15/0.98
	9.53 [3/8]	19.05 [3/4]	8/1.00	15/0.99	15/0.99	15/0.99	15/0.99	15/0.98
10.6 kW [3 TON]	7.94 [5/16]	15.88 [5/8]	8/0.99	15/0.97	15/0.95	15/0.93	11/0.91	NR
	9.53 [3/8]	15.88 [5/8]	8/0.99	15/0.97	15/0.95	15/0.93	15/0.91	NR
	7.94 [5/16]	19.05 [3/4]	8/1.00	15/0.99	15/0.99	15/0.98	11/0.97	6/0.96
	9.53 [3/8]	19.05 [3/4]	8/1.00	15/0.99	15/0.99	15/0.98	15/0.97	15/0.96
	12.70 [1/2]	19.05 [3/4]	8/1.00	15/0.99	15/0.99	15/0.98	15/0.97	15/0.96
14.1 kW [4 TON]	9.53 [3/8]	19.05 [3/4]	8/0.99	15/0.98	15/0.96	15/0.95	15/0.93	15/0.92
	12.70 [1/2]	19.05 [3/4]	8/0.99	15/0.98	15/0.96	15/0.95	15/0.93	15/0.92
	9.53 [3/8]	22.23 [7/8]	8/1.00	15/0.99	15/0.99	15/0.98	15/0.98	15/0.97
	12.70 [1/2]	22.23 [7/8]	8/1.00	15/0.99	15/0.99	15/0.98	15/0.98	15/0.97
17.6 kW [5 TON]	9.53 [3/8]	19.05 [3/4]	8/0.98	15/0.97	15/0.95	15/0.93	14/0.91	NR
	12.70 [1/2]	19.05 [3/4]	8/0.98	15/0.97	15/0.95	15/0.93	15/0.91	NR
	9.53 [3/8]	22.23 [7/8]	8/0.99	15/0.99	15/0.98	15/0.97	15/0.96	12/0.95
	12.70 [1/2]	22.23 [7/8]	8/0.99	15/0.99	15/0.98	15/0.97	15/0.96	15/0.95
	9.53 [3/8]	28.58 [1-1/8]**	8/1.00	15/0.99	15/0.99	15/0.99	15/0.99	12/0.99
	12.70 [1/2]	28.58 [1-1/8]**	8/1.00	15/0.99	15/0.99	15/0.99	15/0.99	15/0.99

**NOTES:**

- 1) Do not exceed 46 meters linear line length.
- 2) Do not exceed 15 meters vertical separation between indoor and outdoor units.
- 3) \*19.05mm [3/4"] vapor line should only be used for 2 ton systems if outdoor unit is below or at same level as indoor unit to assure proper oil return.
- 4) \*\*28.58mm [1-1/8"] vapor line should only be used for 5 ton systems if outdoor unit is below or at same level as indoor unit to assure proper oil return.
- 5) Always use the smallest liquid line allowable to minimize refrigerant charge.
- 6) Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.
- 7) 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	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
RP18AZ24AJVC	RHMVZ2421HEACA	22800 [6.7]	17500 [5.1]	5300 [1.6]	18.0	12.5	785 [370.5]	22800 [6.7]	3.00	23000 [6.7]	2.00	8.5
RP18AZ36AJVC	RHMVZ6021SEACA	34200 [10.0]	26200 [7.7]	8000 [2.3]	18.0	12.5	1225 [578.1]	32000 [9.4]	3.00	37400 [11.0]	2.00	8.5
RP18AZ48AJVC	RHMVZ6021SEACA	45800 [13.4]	34500 [10.1]	10500 [3.1]	18.0	12.0	1590 [750.4]	40000 [11.7]	2.50	41000 [12.0]	1.50	8.5
RP18AZ60AJVC	RHMVZ6021SEACA	53000 [15.5]	40600 [11.9]	12400 [3.6]	18.0	10.5	1685 [795.2]	48500 [14.2]	2.50	47000 [13.8]	1.50	8.5

**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](http://www.ahridirectory.org).

[ ] Designates Metric Conversions



## THE ECONET® SMART THERMOSTAT

### BUILT-IN WIFI

### 4.3" LCD TOUCH SCREEN

**LOCAL WEATHER** – Current conditions plus 6-day forecast

**5 OPERATING MODES** – Heat, Cool, Auto, Emergency Heat and Fan Only

**7-DAY PROGRAMMABLE SCHEDULE** – Offers comfort without thought

**ONE-TOUCH AWAY** – Quickly switch to your energy-saving away preferences

**VACATION SCHEDULING** – Allows you to save while you're away and come home to comfort

**STANDBY SCREEN** – Displays indoor temperature and current weather



**RETST800SYS**

## OPERATIONAL FEATURES

**AUTOMATIC CHANGEOVER** – Transitions between heating and cooling automatically to keep the house comfortable

**INTEGRATED WATER CONTROL** – Enables easy water heater management

**SMOOTH ARRIVAL** – Prompts the system to start ahead of schedule to ensure the home is at the desired temperature at the scheduled time

**HUMIDITY CONTROL** – Supports humidifier accessories or over-cool based dehumidification

**DETAILED OPERATING STATUS** – View pertinent equipment status information and run times

**CONTINUOUS FAN** – Offers 5 speeds (Low, Medium Low, Medium, Medium High, High)

**SHORT-CYCLE PROTECTION** – Avoids damage to equipment from short run cycles

## MONITORING & REMOTE CONTROL FEATURES

**ACTIVE MONITORING** – Alerts to problems that need immediate attention

**REMOTE CONTROL** – Allows adjusting of comfort and settings from anywhere using a mobile device

**SERVICE ALERTS** – Sends routine maintenance reminders

**AIR FILTER MONITORING** – Detects when it's time to replace the air filter

**ALARM HISTORY** – Displays time-stamped alarm codes with clear descriptions



The new degree of comfort.®

## Endeavor™ Line *Classic Plus*® Series iM Heat Pumps



This product meets a stringent set of our internally defined sustainability standards



### RP16AZ

Cooling Efficiencies up to: 17.0 SEER2/10.4 EER2

Heating Efficiency: 8.1 HSPF2

Nominal Sizes: 2 to 5 Ton [7.0 to 17.6 kW]

Cooling Capacities 22.8 to 55.0 kBTU [6.7 to 16.1 kW]



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

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## Features and Benefits

- **EcoNet® Enabled:** Automatic system configuration and optimization
- **PlusOne® Diagnostics & Bluetooth®<sup>1</sup> Connectivity:** With the Rheem Contractor & EcoNet® Apps, built-in technology makes advanced set-up, monitoring, troubleshooting, and repairing the product easier than ever before
- **PlusOne® Variable Speed Twin Rotary Compressor & Inverter Drive:**
  - Features variable speed operation from 40 to 70% capacity, or 100% capacity via line voltage, with the EcoNet® Smart Thermostat
  - 3-speed operation when installed with a 24V two-stage thermostat
  - Provides precise temperature control, advanced humidity control and greater efficiency
- **Brushless DC Condenser Motors (BLDC):** Enhances reliability and allows for easier serviceability
- **Swept Wing Fan Technology:** Features quieter operation and improved unit acoustics
- **7 mm Condenser Copper Coil<sup>2</sup>:** 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
- **PlusOne® Expanded Value Space:** 3 in. – 4 in. – 5 in. service valve space – provides a minimum working area of 27-square inches for easier access
- **PlusOne® Triple Service Access:** 15 in. wide, industry leading corner service access, two fastener, removeable corner and individual louver panels – makes repairs easier and faster

<sup>1</sup>The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Rheem® is under license. Other trademarks and trade names are those of their respective owners.

<sup>2</sup>Does not apply to the 5 ton model.

# Heat Pumps

<u>R</u>	<u>P</u>	<u>16</u>	<u>A</u>	<u>Z</u>	<u>24</u>	<u>A</u>	<u>J</u>	<u>3</u>	<u>C</u>	<u>A</u>
Brand	Product Category	SEER2	Region	Refrigerant	Capacity	Major Series	Voltage	Type	Controls	Minor Series
R - Rheem	P - Heat Pump	16 - 16 SEER2	A - All Regions	Z - R-410A	24 - 24,000 [7.03 kW] 36 - 36,000 [10.55 kW] 48 - 48,000 [14.07 kW] 60 - 60,000 [17.58 kW]	A - 1st Design	J - 208/230/1/60	3 - 3+ Stage	C - Communicating	A - 1st Series

[ ] Designates Metric Conversions

AVAILABLE MODELS	DESCRIPTION
RP16AZ24AJ3CA	Endeavor™ Line <i>Classic Plus</i> ® 2 ton 16 SEER2 Variable Speed iM Heat Pump-208/230/1/60
RP16AZ36AJ3CA	Endeavor™ Line <i>Classic Plus</i> ® 3 ton 16 SEER2 Variable Speed iM Heat Pump-208/230/1/60
RP16AZ48AJ3CA	Endeavor™ Line <i>Classic Plus</i> ® 4 ton 16 SEER2 Variable Speed iM Heat Pump-208/230/1/60
RP16AZ60AJ3CA	Endeavor™ Line <i>Classic Plus</i> ® 5 ton 16 SEER2 Variable Speed iM Heat Pump-208/230/1/60

STANDARD EQUIPMENT
R-410A Refrigerant
Twin Rotary Compressor
Compressor Sound Blanket
Field Installed Filter Drier
Front Seating Service Valves
Internal Thermal Overload
Long Line capability
Low Ambient capability
3-4-5 Expanded Valve Space
Composite Basepan
15" Access to Internal Components
Quick release louver panel design
No fasteners to remove along bottom
Optimized Venturi Airflow
Single row condenser coil
Powder coated paint
Rust resistant screws
QR code
External gauge ports
Service trays

<b>General Data</b>				
<b>MODEL NO.</b>	<b>RP16AZ24AJ3</b>	<b>RP16AZ36AJ3</b>	<b>RP16AZ48AJ3</b>	<b>RP16AZ60AJ3</b>
<b>Nominal Tonnage</b>	2	3	4	5
<b>Valve Connections</b>				
Liquid Line O.D. – in.	3/8	3/8	3/8	3/8
Suction Line O.D. – in.	3/4	3/4	7/8	7/8
<b>Refrigerant (R410A) furnished oz.<sup>1</sup></b>	118	135	164	256
<b>Compressor Type</b>	Twin Rotary			
<b>Outdoor Coil</b>				
Net face area – Outer Coil	14.4	19.8	19.8	24.2
Net face area – Inner Coil	—	—	—	—
Tube diameter – in.	0.276	0.276	0.276	0.276
Number of rows	1	1	1	1
Fins per inch	22	24	22	20
<b>Outdoor Fan</b>				
Diameter – in.	20	24	24	26
Number of blades	3	3	3	3
Motor hp	1/5	1/5	1/3	1/2
CFM	2754	4560	4567	5477
RPM	1075	1000	1000	925
Watts	165	277	252	283
<b>Shipping weight – lbs.</b>	188	205	210	314
<b>Operating weight – lbs.</b>	181	198	203	307

<b>Electrical Data</b>				
<b>Line Voltage Data (Volts-Phase-Hz)</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>	<b>208/230-1-60</b>
<b>Maximum overcurrent protection (amps)<sup>2</sup></b>	20	35	40	50
<b>Minimum circuit ampacity<sup>3</sup></b>	12	21	25	30
<b>Compressor</b>				
Rated load amps	9	13	18	22
Locked rotor amps	65	68	96	119

<sup>1</sup>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.

<sup>2</sup>HACR type circuit breaker or fuse.

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



## Accessories

MODEL NO.		RP16AZ24AJ3	RP16AZ36AJ3	RP16AZ48AJ3	RP16AZ60AJ3
EcoNet® Smart Thermostat		RETST800SYS	RETST800SYS	RETST800SYS	RETST800SYS
Compressor crankcase heater*		N/A	N/A	N/A	N/A
Low ambient control		47-102709-10	47-102709-10	47-102709-10	47-102709-10
Compressor sound cover		68-23427-27	68-23427-28	68-23427-29	68-23427-29
Low pressure control		47-103454-01	47-103454-01	47-103454-01	47-103454-01
High pressure control		47-103669-02	47-103669-02	47-103669-02	47-103669-02
Liquid Line Solenoid (24 VAC, 50/60 Hz)	Solenoid Valve	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC
	Solenoid Coil	61-AMG24V	61-AMG24V	61-AMG24V	61-AMG24V
Liquid Line Solenoid (120/240 VAC, 50/60 Hz)	Solenoid Valve	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC	200RD2T3TVLC
	Solenoid Coil	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V	61-AMG120/240V

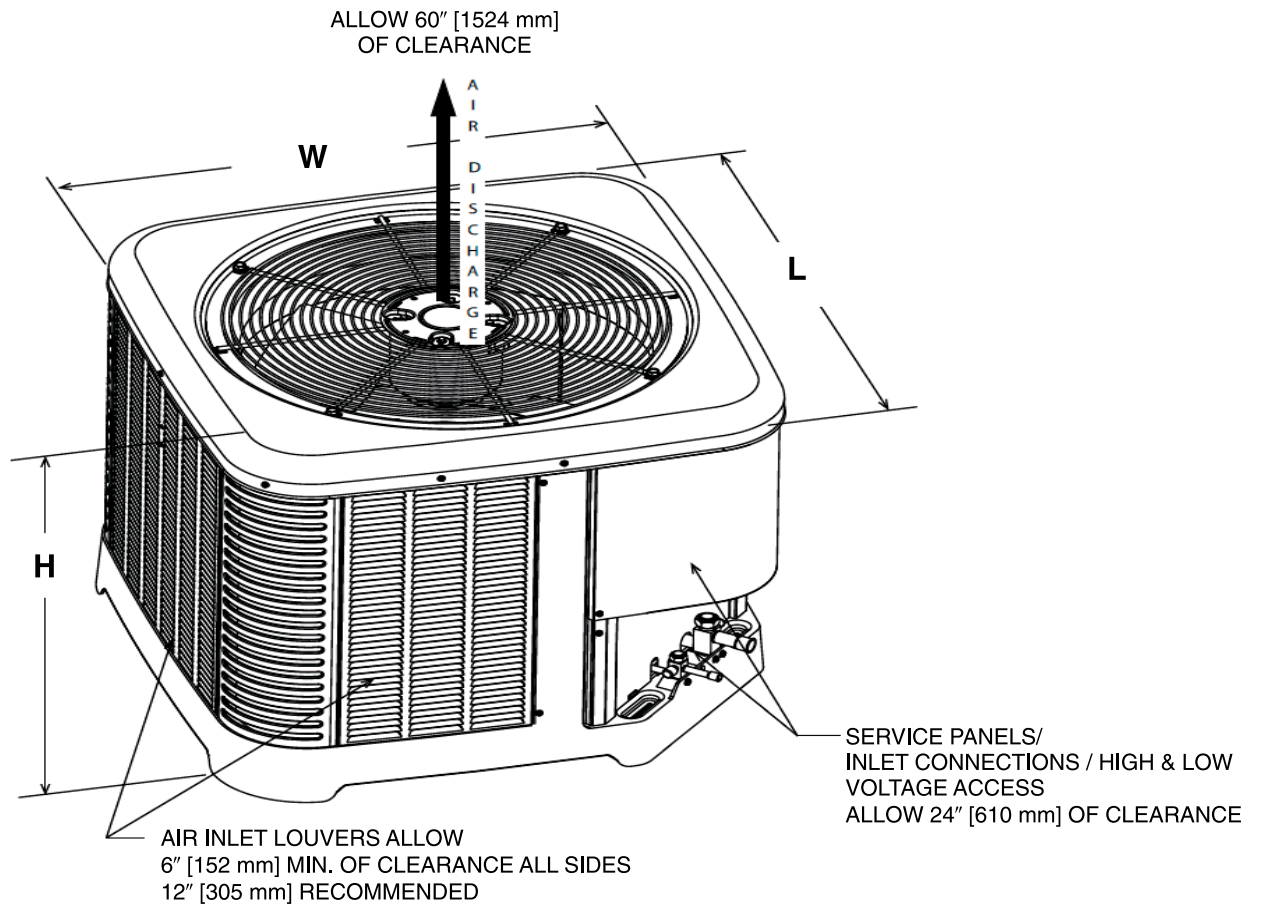
## Weighted Sound Power Level (dBA)

UNIT SIZE - VOLTAGE, SERIES	STANDARD RATING (dBA) HIGH STAGE LOW STAGE	TYPICAL OCTAVE BAND SPECTRUM (dBA WITHOUT TONE ADJUSTMENT)						
		125	250	500	1000	2000	4000	8000
RP16AZ24AJ3	72.2	43.5	56.5	63.9	61.4	59.0	58.3	47.9
	63.6	37.8	48.9	55.4	52.7	49.9	51.6	42.4
RP16AZ36AJ3	72.9	49.2	60.5	64.7	60.2	61.3	59.2	46.6
	59.9	35.8	44.8	51.6	49.6	46.9	45.4	42.2
RP16AZ48AJ3	74.3	46.6	58.0	64.2	61.6	60.1	61.3	49.9
	61.5	35.1	46.0	53.8	47.9	46.4	53.5	42.0
RP16AZ60AJ3	71.2	45.7	56.0	63.5	59.7	57.4	54.6	47.9
	61.8	30.9	45.2	52.6	48.6	50.3	49.2	42.1

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

## Unit Dimensions

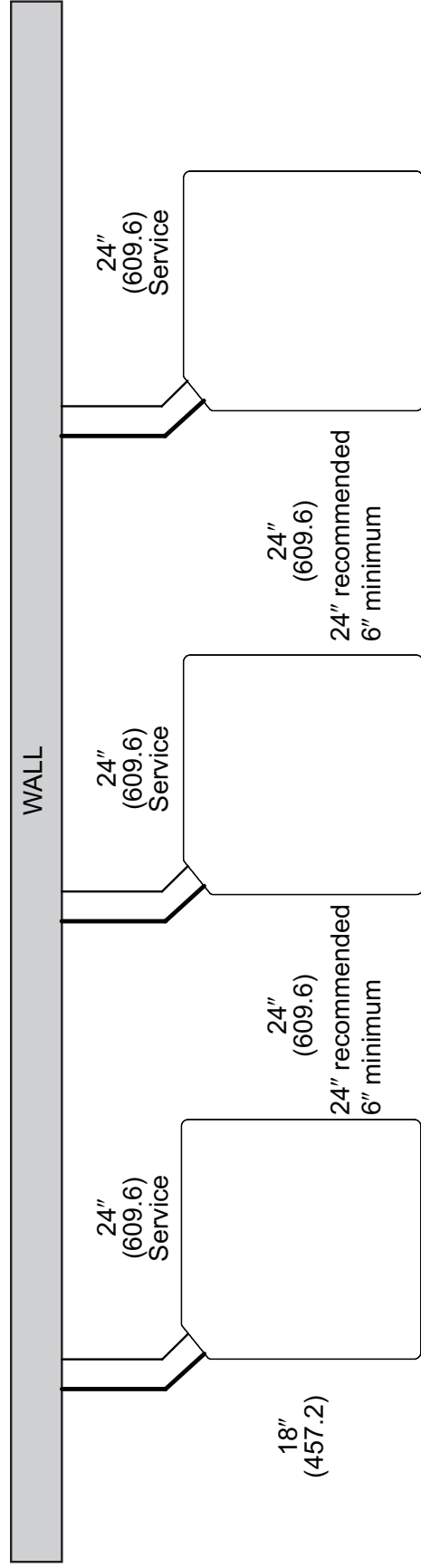
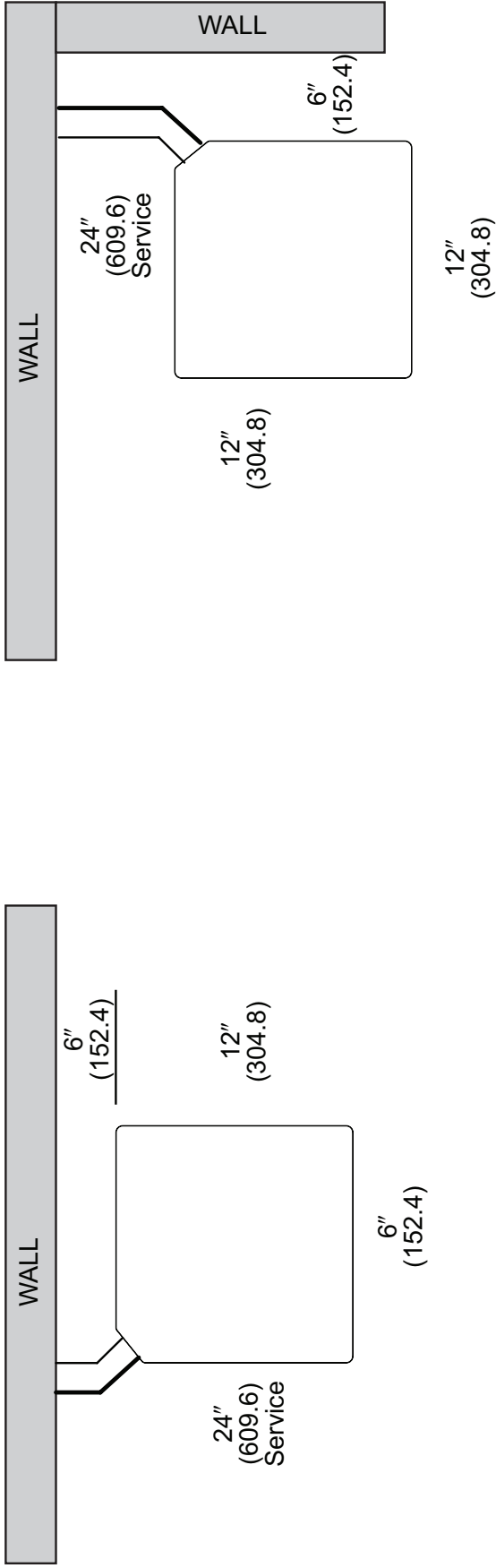
MODEL NO.	OPERATING						SHIPPING					
	H (Height)		L (Length)		W (Width)		H (Height)		L (Length)		W (Width)	
	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
RP16AZ24AJ3CA	27.00	685.80	29.75	755.65	29.75	755.65	28.50	723.90	32.38	822.45	32.38	822.45
RP16AZ36AJ3CA	35.00	889.00	33.75	857.25	33.75	857.25	36.50	927.10	36.38	924.05	36.38	924.05
RP16AZ48AJ3CA	35.00	889.00	33.75	857.25	33.75	857.25	36.50	927.10	36.38	924.05	36.38	924.05
RP16AZ60AJ3CA	45.00	1143.00	35.75	908.05	35.75	908.05	46.50	1181.10	38.38	974.85	38.38	974.85



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ST-A1226-02-00

# 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.

## Refrigerant Line Size Information

16 SEER2 VARIABLE SPEED HEAT PUMPS								
UNIT SIZE	ALLOWABLE LIQUID LINE SIZE	ALLOWABLE VAPOR LINE SIZE	OUTDOOR UNIT ABOVE OR BELOW INDOOR UNIT EQUIVALENT LENGTH (FEET)					
			< 25	26-50	51-75	76-100	101-125	126-150
			MAXIMUM VERTICAL SEPARATION/CAPACITY MULTIPLIER					
2.0 TON *SEE NOTE 3	1/4"	5/8"	25/1.00	50/0.99	33/0.98	60/0.97	NR	NR
	5/16"	5/8"	25/1.00	50/0.99	50/0.98	50/0.97	50/0.96	50/0.95
	3/8"	5/8"	25/1.00	50/0.99	50/0.98	50/0.97	50/0.96	50/0.95
	1/4"	3/4"	25/1.00	50/1.00	33/0.99	60/0.99	NR	NR
	5/16"	3/4"	25/1.00	50/1.00	50/0.99	50/0.99	50/0.99	50/0.98
	3/8"	3/4"	25/1.00	50/1.00	50/0.99	50/0.99	50/0.99	50/0.98
3 TON	5/16"	5/8"	25/0.99	50/0.97	50/0.95	50/0.93	36/0.91	NR
	3/8"	5/8"	25/0.99	50/0.97	50/0.95	50/0.93	50/0.91	NR
	5/16"	3/4"	25/1.00	50/0.99	50/0.99	50/0.98	36/0.97	20/0.96
	3/8"	3/4"	25/1.00	50/0.99	50/0.99	50/0.98	50/0.97	50/0.96
	1/2"	3/4"	25/1.00	50/0.99	50/0.99	50/0.98	50/0.97	50/0.96
4 TON	3/8"	3/4"	25/0.99	50/0.98	50/0.96	50/0.95	50/0.93	50/0.92
	1/2"	3/4"	25/0.99	50/0.98	50/0.96	50/0.95	50/0.93	50/0.92
	3/8"	7/8"	25/1.00	50/0.99	50/0.99	50/0.98	50/0.98	50/0.97
	1/2"	7/8"	25/1.00	50/0.99	50/0.99	50/0.98	50/0.98	50/0.97
5 TON	3/8"	3/4"	25/0.98	50/0.97	50/0.95	50/0.93	46/0.91	NR
	1/2"	3/4"	25/0.98	50/0.97	50/0.95	50/0.93	50/0.91	NR
	3/8"	7/8"	25/0.99	50/0.99	50/0.98	50/0.97	50/0.96	38/0.95
	1/2"	7/8"	25/0.99	50/0.99	50/0.98	50/0.97	50/0.96	50/0.95
	3/8"	1-1/8"	25/1.00	50/1.00	50/1.00	50/0.99	50/0.99	38/0.99
	1/2"	1-1/8"	25/1.00	50/1.00	50/1.00	50/0.99	50/0.99	50/0.99

**NOTES:**

- 1) Do not exceed 150 ft. linear line length.
- 2) Do not exceed 50 ft. vertical separation between indoor and outdoor units.
- 3) \*3/4" vapor line should only be used for 2 ton systems if outdoor unit is below or at same level as indoor unit to assure proper oil return.
- 4) \*\*1-1/8" vapor line should only be used for 5 ton systems if outdoor unit is below or at same level as indoor unit to assure proper oil return.
- 5) Always use the smallest liquid line allowable to minimize refrigerant charge.
- 6) Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.
- 7) Applications shaded in dark gray are not recommended due to excessive liquid or suction pressure drop.
- 8) **Some longer lineset installations will require additional POE oil to be added to the system. See table below for additional oil volume requirements.**

ADDITIONAL POE OIL, Oz.											
LINESET LENGTH, FT	50	60	70	80	90	100	110	120	130	140	150
2T	N/A	1	3	4	5	7	8	9	11	12	13
3T	N/A	N/A	N/A	N/A	1	2	3	5	6	7	9
4T	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	1
5T	2	3	4	6	7	8	10	11	12	14	15

## Refrigerant Line Size Information (Con't.)

16 SEER2 VARIABLE SPEED HEAT PUMPS								
UNIT SIZE	ALLOWABLE LIQUID LINE SIZE	ALLOWABLE VAPOR LINE SIZE	OUTDOOR UNIT ABOVE OR BELOW INDOOR UNIT EQUIVALENT LENGTH (METERS)					
			< 8	9-15	16-23	24-30	31-38	39-46
			MAXIMUM VERTICAL SEPARATION/CAPACITY MULTIPLIER					
7.0 kW [2.0 TON] *SEE NOTE 3	6.35 [1/4]	15.88 [5/8]	8/1.00	15/0.99	10/0.98	20/0.97	NR	NR
	7.94 [5/16]	15.88 [5/8]	8/1.00	15/0.99	15/0.98	15/0.97	15/0.96	15/0.95
	9.53 [3/8]	15.88 [5/8]	8/1.00	15/0.99	15/0.98	15/0.97	15/0.96	15/0.95
	6.35 [1/4]	19.05 [3/4]	8/1.00	15/0.99	10/0.99	20/0.99	NR	NR
	7.94 [5/16]	19.05 [3/4]	8/1.00	15/0.99	15/0.99	15/0.99	15/0.99	15/0.98
	9.53 [3/8]	19.05 [3/4]	8/1.00	15/0.99	15/0.99	15/0.99	15/0.99	15/0.98
10.6 kW [3 TON]	7.94 [5/16]	15.88 [5/8]	8/0.99	15/0.97	15/0.95	15/0.93	11/0.91	NR
	9.53 [3/8]	15.88 [5/8]	8/0.99	15/0.97	15/0.95	15/0.93	15/0.91	NR
	7.94 [5/16]	19.05 [3/4]	8/1.00	15/0.99	15/0.99	15/0.98	11/0.97	6/0.96
	9.53 [3/8]	19.05 [3/4]	8/1.00	15/0.99	15/0.99	15/0.98	15/0.97	15/0.96
	12.70 [1/2]	19.05 [3/4]	8/1.00	15/0.99	15/0.99	15/0.98	15/0.97	15/0.96
14.1 kW [4 TON]	9.53 [3/8]	19.05 [3/4]	8/0.99	15/0.98	15/0.96	15/0.95	15/0.93	15/0.92
	12.70 [1/2]	19.05 [3/4]	8/0.99	15/0.98	15/0.96	15/0.95	15/0.93	15/0.92
	9.53 [3/8]	22.23 [7/8]	8/1.00	15/0.99	15/0.99	15/0.98	15/0.98	15/0.97
	12.70 [1/2]	22.23 [7/8]	8/1.00	15/0.99	15/0.99	15/0.98	15/0.98	15/0.97
17.6 kW [5 TON]	9.53 [3/8]	19.05 [3/4]	8/0.98	15/0.97	15/0.95	15/0.93	14/0.91	NR
	12.70 [1/2]	19.05 [3/4]	8/0.98	15/0.97	15/0.95	15/0.93	15/0.91	NR
	9.53 [3/8]	22.23 [7/8]	8/0.99	15/0.99	15/0.98	15/0.97	15/0.96	12/0.95
	12.70 [1/2]	22.23 [7/8]	8/0.99	15/0.99	15/0.98	15/0.97	15/0.96	15/0.95
	9.53 [3/8]	28.58 [1-1/8]**	8/1.00	36540	36540	15/0.99	15/0.99	12/0.99
	12.70 [1/2]	28.58 [1-1/8]**	8/1.00	36540	36540	15/0.99	15/0.99	15/0.99

- NOTES:**
- 1) Do not exceed 46 meters linear line length.
  - 2) Do not exceed 15 meters vertical separation between indoor and outdoor units.
  - 3) \*19.05 mm [3/4 in.] vapor line should only be used for 2 ton systems if outdoor unit is below or at same level as indoor unit to assure proper oil return.
  - 4) \*\*28.58 mm [1-1/8 in.] vapor line should only be used for 5 ton systems if outdoor unit is below or at same level as indoor unit to assure proper oil return.
  - 5) Always use the smallest liquid line allowable to minimize refrigerant charge.
  - 6) Applications shaded in light gray indicate capacity multipliers between 0.90 and 0.96 which are not recommended, but are allowed.
  - 7) Applications shaded in dark gray are not recommended due to excessive liquid or suction pressure drop.
  - 8) **Some longer lineset installations will require additional POE oil to be added to the system. See table below for additional oil volume requirements.**

ADDITIONAL POE OIL, Oz.											
LINESET LENGTH, M	15.2	18.3	21.3	24.4	27.4	30.5	33.5	36.6	39.6	42.7	45.7
2T	N/A	1	3	4	5	7	8	9	11	12	13
3T	N/A	N/A	N/A	N/A	1	2	3	5	6	7	9
4T	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	1
5T	2	3	4	6	7	8	10	11	12	14	15

## Performance Data @ AHRI Standard Conditions – Cooling

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
RP16AZ24AJ3	RH3VZ2417STACN	22,600 [6.6]	17,300 [5.1]	5,300 [1.6]	16.0	9.8	750 [354.0]	22,800 [6.7]	3.50	13,800 [4.0]	2.40	8.0
RP16AZ36AJ3	RH3VZ3617STACN	34,200 [10.0]	26,200 [7.7]	8,000 [2.3]	16.0	9.8	1,100 [519.1]	34,500 [10.1]	3.20	21,600 [6.3]	2.30	7.5
RP16AZ48AJ3	RH3VZ4821STACN	45,500 [13.3]	34,900 [10.2]	10,600 [3.1]	16.0	9.8	1,475 [696.1]	45,500 [13.3]	3.40	28,500 [8.4]	2.40	8.0
RP16AZ60AJ3	RH3VZ6024STACN	55,000 [16.1]	42,200 [12.4]	12,800 [3.8]	16.0	9.8	1,725 [814.1]	57,000 [16.7]	3.20	35,500 [10.4]	2.40	8.0

**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](http://www.ahridirectory.org).

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