



PROJECT NAME \_\_\_\_\_  
LOCATION \_\_\_\_\_  
ARCHITECT \_\_\_\_\_  
ENGINEER \_\_\_\_\_  
CONTRACTOR \_\_\_\_\_  
SUBMITTED BY \_\_\_\_\_ DATE \_\_\_\_\_

**UNIT SUMMARY**

Quantity						
Unit Designation						
Model No.						
Total Cooling						
Sensible Cooling						
Air Ent. Evaporator						
Air Lvg. Evaporator						
Heating Input						
Heating Output						
CFM/ESP						
EER/SEER						
Electrical						
Minimum Ampacity						
Min.-Max. Breaker						
Net Unit Weight						
Accessory						
Catalog Form Number						

**ACCESSORIES:**

**NOTES:**

**Endeavor® Line RD16AY Side-Discharge Heat Pumps**  
**Cooling Efficiencies up to: 17 SEER2 / 10.5 EER2**  
**Heating Efficiencies up to: 8.5 HSPF2**  
**Nominal Sizes: 2 to 5 Tons [7.0 to 17.6 kW]**  
**Cooling & Heating Capacities: 22.8 to 55.5 kBTU [6.7 to 16.3 kW]**  
**Refrigerant Type: R-454B**

JOB NAME \_\_\_\_\_ LOCATION \_\_\_\_\_  
 CONTRACTOR \_\_\_\_\_ ORDER NO. \_\_\_\_\_  
 ENGINEER \_\_\_\_\_ UNIT MODEL NO. \_\_\_\_\_  
 SUBMITTED FOR  APPROVAL  RECORD COIL MODEL NO. \_\_\_\_\_  
 DATE \_\_\_\_\_ AIR HANDLER MODEL NO. \_\_\_\_\_

**UNIT DATA**

**COOLING PERFORMANCE**

EFFICIENCY ..... SEER  
 TOTAL CAPACITY\* ..... MBH [kW]  
 SENSIBLE CAPACITY\* ..... MBH [kW]  
 OUTDOOR DESIGN TEMP..... °F [°C] DB  
 TEMP. OF AIR ENTERING  
 EVAPORATOR COIL ..... °F [°C] DB  
 °F [°C] WB  
 POWER INPUT REQUIREMENT ..... kW  
 (\*uses blower motor heat)

**HEATING PERFORMANCE**

EFFICIENCY ..... HSPF  
 TOTAL CAPACITY\* ..... MBH [kW]  
 OUTDOOR DESIGN TEMP..... °F [°C] DB  
 TEMP. OF AIR ENTERING  
 EVAPORATOR COIL ..... °F [°C] DB

**SUPPLY AIR BLOWER PERFORMANCE**

TOTAL AIR SUPPLY..... CFM [L/s]  
 TOTAL RESISTANCE EXTERNAL  
 TO UNIT ..... IWG  
 BLOWER SPEED..... RPM  
 POWER OUTPUT REQUIREMENT ..... BHP  
 MOTOR RATING ..... HP [W]  
 POWER INPUT REQUIREMENT ..... kW

**ELECTRICAL DATA**

POWER SUPPLY ..... Hz  
 TOTAL UNIT AMPACITY..... AMPS  
 MINIMUM WIRE SIZE ..... AWG  
 MAXIMUM OVERCURRENT DEVICE  
 FUSES/HACR BREAKER ..... AMPS

**CLEARANCES**

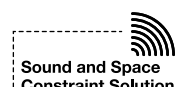
ACCESS SIDE 24" [609.6 mm]  
 AIR INLETS 12" [304.8 mm]  
 ABOVE UNIT 60" [1524 mm]

**FEATURES**

- **Space Saver Solution:** The RD16AY—with footprint options as low as 31.8" tall and 19.8" wide—is ideal for when installation locations are constrained; but is also perfect for any system or replacement option where an efficient, streamlined look is desired
- **Quiet Operation as low as 50dBA<sup>1</sup>:** Offers sound dampening features such as a sound blanket, refrigerant tubing design, fan blade approach and innovative compressor and drive technologies—ensure that as efficiency goes up, sound levels stay low
- **EcoNet® Enabled<sup>2</sup>:** Automatic system configuration and optimization
- **PlusOne® Diagnostics & Bluetooth<sup>®3,4</sup> Connectivity:** With the 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 45 to 100% capacity with the EcoNet® Smart Thermostat or with legacy and other thermostats when the utility 1 & 2 jumpers are installed or using the algorithm<sup>5</sup>
  - 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
- **7mm Condenser Copper Coil:** Requires less refrigerant allowing for a smaller and lighter footprint while enhancing reliability
- **Optional Base Pan Heater:** Utilizes a built-in thermostat to regulate the heating operation to prevent ice build-up on the base pan during extreme cold weather conditions
- **Traditional Refrigerant Piping:** Allows for use of existing refrigerant line sets for further ease of replacement installation flexibility
- **10-Year Conditional Parts Warranty (registration required):** Coverage when installed as a heat pump only or as part of a system—with no AHRI matched system requirement
- **PlusOne® Refrigerant Detection System™<sup>6</sup>:** An integrated one-box, patented design featuring the A2L sensor and mitigation board, offering easier commissioning with a single component and simplified wiring configuration, compatibility with the any 24V thermostat application and system protection by automatically pausing outdoor unit operation—if excess refrigerant is detected



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



<sup>1</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®. Ask your Contractor for details or visit [www.energystar.gov](http://www.energystar.gov).

## FEATURES (Con't.)

- **Designing for Sustainability with Low GWP:** For 2025, the Environmental Protection Agency (EPA) has set a global warming potential (GWP) limit of 700 for refrigerant used in heating and cooling systems. This new requirement will result in a 78%<sup>7</sup> lower GWP than previous-generation refrigerants—with only minimal changes to system installation. For us, this is another step toward our continued sustainability goal of reducing greenhouse gas emissions, while still delivering an exceptional level of energy efficient, dependable comfort
- **Qualifies for Federal Incentives (conditions apply):**
  - Federal Tax Credit compliant system combinations may be available (effective through 12/31/32—up to \$2000 for qualified heat pumps)

## ACCESSORIES/OPTIONS

- Compressor Crankcase Heater.....
- Base Pan Connector Kit (45-110492-01)<sup>8</sup>.....
- Liquid Line Solenoid (24 VAC, 50/60 Hz).....
- Liquid Line Solenoid (120/240 VAC, 50/60 Hz).....
- Low Ambient Control .....
- Compressor Sound Cover.....

<sup>1</sup>Based on Internal R&D Testing, 2024 Sound levels are also dependent on proper installation and location of outdoor product. <sup>2</sup>When installed as part of a complete AHRI-matched, Rheem EcoNet® Enabled system. <sup>3</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>4</sup>When installed as part of a complete Rheem system where both the outdoor & indoor components feature Bluetooth® Technology. <sup>5</sup>Two-Stage (70% & 100% capacity) operation when installed with legacy and other thermostats when the utility 1 & 2 jumpers are not installed. The 2-Ton model features a single rotary compressor. <sup>6</sup>Factory or field installed in the furnace coil or air handler and is applicable to the complete heating and cooling system featuring Low GWP Refrigerant (A2L). <sup>7</sup>When comparing the GWP of R-454B to R-410A refrigerant. <sup>8</sup>Required for heating element commissioning.

## RD16AY

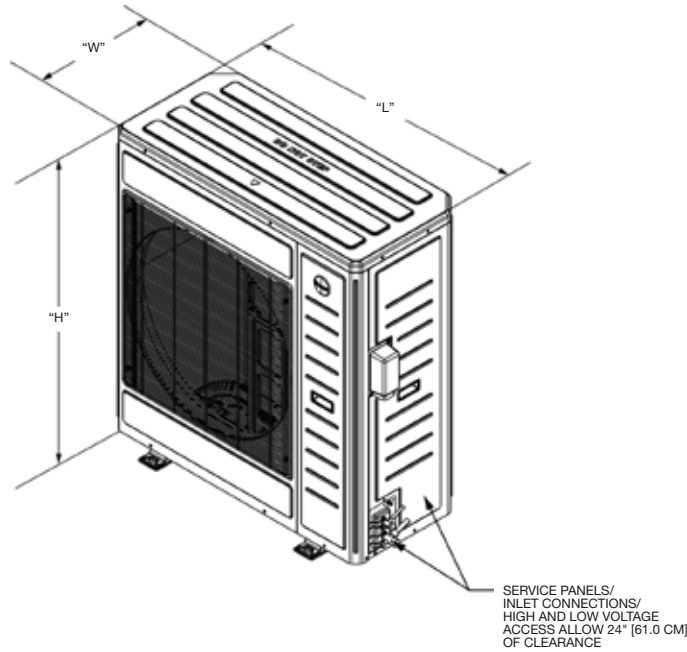


Illustration  
A1345-02-00

## Unit Dimensions

MODEL NO.	OPERATING						SHIPPING					
	H (Height)		L (Length)		W (Width)		H (Height)		L (Length)		W (Width)	
	INCHES	cm	INCHES	cm	INCHES	cm	INCHES	cm	INCHES	cm	INCHES	cm
RD16AY24AJVCA	31.8	80.4	40.4	102.6	19.8	50.3	38.00	96.4	48.43	123.0	22.05	56.0
RD16AY36AJVCA	31.8	80.4	40.4	102.6	19.8	50.3	38.00	96.4	48.43	123.0	22.05	56.0
RD16AY48AJVCA	36.6	93.0	40.4	102.6	19.8	50.3	43.31	110.0	48.43	123.0	22.05	56.0
RD16AY60AJVCA	46.4	117.8	42.3	107.4	22.8	57.8	53.94	137.0	50.00	127.0	25.00	63.5

[ ] Designates Metric Conversions

**Before proceeding with installation, refer to installation instructions packaged with each model, as well as complying with all Federal, State, Provincial, and Local codes, regulations, and practices.**

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