



The new degree of comfort.™

Rheem Value Series Heat Pumps



13PJP- Series

Efficiencies up to 13 SEER

Nominal Sizes 1.5-4 Ton [5.28 to 14.7 kW]

Cooling Capacities 17.7 to 48.5 kBTU

[5.19 to 14.2 kW]



"Proper sizing and installation of equipment is critical to achieve optimal performance. Ask your Contractor for details or visit www.energystar.gov."

- Outdoor heat pump designed for ground level or rooftop installations. These units offer comfort and dependability for single, multi-family and light commercial applications
- Painted louvered steel cabinet
- Easily accessible control box
- Suction line accumulator
- Piston metering device
- Condenser coils constructed with copper tubing and enhanced aluminum fins
- Grille/Motor mount for quiet fan operation
- Filter Drier (shipped – not installed)

TABLE OF CONTENTS

| | |
|--|---|
| Model Features | 3 |
| Model Number Identification | 4 |
| Accessories..... | 4 |
| Scroll Compressor | 4 |
| Performance Data | 5 |
| Electrical & Physical Data | 6 |
| Unit Dimensions | 7 |
| Refrigerant Line Size Information..... | 8 |
| Limited Warranty | 9 |

Model Features:

- Coils constructed with copper tubing and enhanced aluminum fins.
- Includes factory installed low pressure control.
- Strong, attractive cabinet—louvered design protects the coil from damage.
- Piston metering device with suction line accumulator.
- Demand Defrost Control
- Non-Cycling Reversing Valve
- Hot Gas Muffler
- Service Valves
- Grille/motor mount for quiet fan operation.
- Easily accessible control box.
- Bi-Directional Filter Drier (shipped – not installed)
- Certified and rated under AHRI Standard 240.
- U.L listed.



Model Number Identification

| | | | | | | |
|-----------|---------------|-------------------------------------|-----------------------|---|----------------------------------|-----------------------|
| 13 | P | J | P | 18 | A | 01 |
| 13 SEER | P = HEAT PUMP | VOLTAGE J = 208-230 SINGLE PHASE | P = R-410A/ PISTON | NOMINAL COOLING CAPACITY 18 = 18,000 BTU/HR [5.28 kW] 24 = 24,000 BTU/HR [7.03 kW] 30 = 30,000 BTU/HR [8.79 kW] 36 = 36,000 BTU/HR [10.55 kW] 42 = 42,000 BTU/HR [12.31 kW] 48 = 48,000 BTU/HR [14.07 kW] | CABINET A = FULL METAL JACKET | RHEEM VALUE SERIES |

Accessories

- Heat Pump Thermostat Warning Light Kit (Model No. RXPX-D01)
- Low Ambient Control (Model No. RXAD-A08)
- Outdoor Thermostats (Model No. RXPT-A01, A02, A03 or A04)
- Heat Pump Monitor (Model No. RXPM-B01)
- Thermostats and Subbases (Available through the PROSTOCK® department)
- Compressor Time Delay Control (Model No. RXMD-B01)
- Blower Time Delay Control (Model No. RXMD-C04)
RXMD-C04 is not required if the outdoor unit is matched with a Rheem Value Series furnace or air handler, or if the furnace or air handler used has a blower off time delay built-in.
- Sound Enclosure*
- High Pressure Control (Model No. RXAB-A07)
- Start Components*

Thermostats



200-Series *
Programmable



300-Series *
Deluxe
Programmable

400-Series *
Special Applications/
Programmable



500-Series *
Communicating/
Programmable

| Brand | Descriptor (3 Characters) | Series (3 Characters) | System (2 Characters) | Type (2 Characters) |
|-----------|------------------------------|--|---|-----------------------------------|
| RHC | TST | 213 | UN | MS |
| RHC=Rheem | TST=Thermostat | 200=Programmable 300=Deluxe Programmable 400=Special Applications/ Programmable 500=Communicating/ Programmable | GE=Gas/Electric UN=Universal (AC/HP/GE) MD=Modulating Furnace DF=Dual Fuel CM=Communicating | SS=Single-Stage MS=Multi-Stage |

* Photos are representative. Actual models may vary.

For detailed thermostat match-up information, see specification sheet form number T11-001.

Scroll® Compressor

The reliable scroll compressor is the key to efficiency for this Rheem model. It's the latest in high-efficiency compressor technology. The advanced scroll compressor offers low noise and vibration characteristics and features tolerance to liquid refrigerant and system contamination. The scroll compressor also has low start torque, reducing start problems in the field. And its unique design enables heat pumps to perform efficiently and quietly.

[] Designates Metric Conversions



Performance Data @ AHRI Standard Conditions

| Model Numbers | | AHRI Cooling Performance | | | | | | | AHRI Heating Performance (70°F [21°C] Indoor) | | | | |
|--------------------------|--------------------------------------|--|-------------------------------|--------------------------------|-------|-------|--------------------|------------------------|--|------|---|------|-----------------------------|
| | | 80°F [26.5°C] DB/67°F [19.5°C] WB Indoor Air 95°F [35°C] DB Outdoor Air | | | | | | | Outdoor Air 47°F [8.5°C] DB/ 43°F [6°C] WB DOE High Temp. | | Outdoor Air 17°F [-8.5°C] DB/ 15°F [-9.5°C] WB DOE Low Temp. | | DOE Region IV HSPF |
| Outdoor Unit 13PJP | Indoor Coil and/or Air Handler | Total Capacity BTU/H [kW] | Net Sens. BTU/H [kW] | Net Latent BTU/H [kW] | EER | SEER | Snd. Rate dB | Indoor CFM [L/s] | BTU/H [kW] | COP | BTU/H [kW] | COP | |
| Rev. 10/4/12 18 | RHLP-HM2417(RCSP-H*2417) ① | 17,700 [5.2] | 13,500 [4.0] | 4,200 [1.2] | 11.00 | 13.00 | 76 | 600 [283] | 16,400 [4.8] | 3.64 | 8,600 [2.5] | 2.08 | 7.70 |
| 24 | RHLP-HM2417(RCSP-H*2417) ① | 23,000 [6.7] | 17,800 [5.2] | 5,200 [1.5] | 11.00 | 13.00 | 74 | 775 [366] | 22,200 [6.5] | 3.68 | 13,100 [3.8] | 2.48 | 7.70 |
| 30 | RHLP-HM3617(RCSP-H*3617) ① | 28,800 [8.4] | 21,500 [6.3] | 7,300 [2.1] | 11.00 | 13.00 | 73 | 1,000 [472] | 27,600 [8.1] | 3.76 | 17,400 [5.1] | 2.70 | 7.70 |
| 36 | RHLP-HM3617(RCSP-H*3617) ① | 34,800 [10.2] | 26,100 [7.6] | 8,700 [2.5] | 11.00 | 13.00 | 75 | 1,175 [554] | 34,600 [10.1] | 3.54 | 21,800 [6.4] | 2.58 | 7.70 |
| 42 | RHLP-HM4821(RCSP-H*4821) ① | 40,500 [11.9] | 30,300 [8.9] | 10,200 [3.0] | 11.00 | 13.00 | 77 | 1,350 [637] | 39,500 [11.6] | 3.72 | 25,000 [7.3] | 2.68 | 7.70 |
| 48 | RHLP-HM4821(RCSP-H*4821) ① | 48,500 [14.2] | 36,700 [10.8] | 11,800 [3.5] | 11.00 | 13.00 | 77 | 1,550 [731] | 46,000 [13.5] | 3.66 | 29,200 [8.6] | 2.66 | 7.70 |

① Highest sales volume tested combination required by D.O.E. test procedures.

[] Designates Metric Conversions

Electrical and Physical Data

| Model Number 13PJP | ELECTRICAL | | | | | | | PHYSICAL | | | | | |
|-----------------------|--|--------------------------------|----------------------------------|--|---|---------------------------------|--------------------|--|-------------|-------------|--------------------------------------|------------------|-----------------------|
| | Phase Frequency (Hz) Voltage (Volts) | Compressor | | Fan Motor Full Load Amperes (FLA) | Minimum Circuit Ampacity Amperes | Fuse or HACR Circuit Breaker | | Outdoor Coil | | | Refrig. Per Circuit Oz. [g] | Weight | |
| | | Rated Load Amperes (RLA) | Locked Rotor Amperes (LRA) | | | Minimum Amperes | Maximum Amperes | Face Area Sq. Ft. [m ²] | No. Rows | CFM [L/s] | | Net Lbs. [kg] | Shipping Lbs. [kg] |
| Rev. 10/4/2012 | | | | | | | | | | | | | |
| 18 | 1-60-208/230 | 9/9 | 48 | 0.6 | 12/12 | 15/15 | 20/20 | 11.06 [1.03] | 1 | 1700 [802] | 90 [2552] | 144 [65.3] | 152 [65.3] |
| 24 | 1-60-208/230 | 12.8/12.8 | 58.3 | 0.6 | 17/17 | 20/20 | 25/25 | 11.06 [1.03] | 1 | 2370 [1118] | 101 [2863] | 130 [59] | 138 [59] |
| 30 | 1-60-208/230 | 14.1/14.1 | 73 | 0.8 | 19/19 | 25/25 | 30/30 | 13.72 [1.27] | 1 | 2800 [1321] | 117 [3317] | 198 [89.8] | 208 [89.8] |
| 36 | 1-60-208/230 | 17/17 | 96.7 | 1.2 | 23/23 | 30/30 | 35/35 | 16.39 [1.52] | 1 | 3575 [1687] | 117 [3317] | 215 [97.5] | 227 [97.5] |
| 42 | 1-60-208/230 | 21.8/21.8 | 112 | 1.2 | 29/29 | 35/35 | 50/50 | 21.85 [2.03] | 1 | 3575 [1687] | 156 [4423] | 202 [91.6] | 214 [91.6] |
| 48 | 1-60-208/230 | 21.8/21.8 | 117 | 1.2 | 29/29 | 35/35 | 50/50 | 21.85 [2.03] | 1 | 3575 [1687] | 156 [4423] | 205 [93] | 217 [93] |

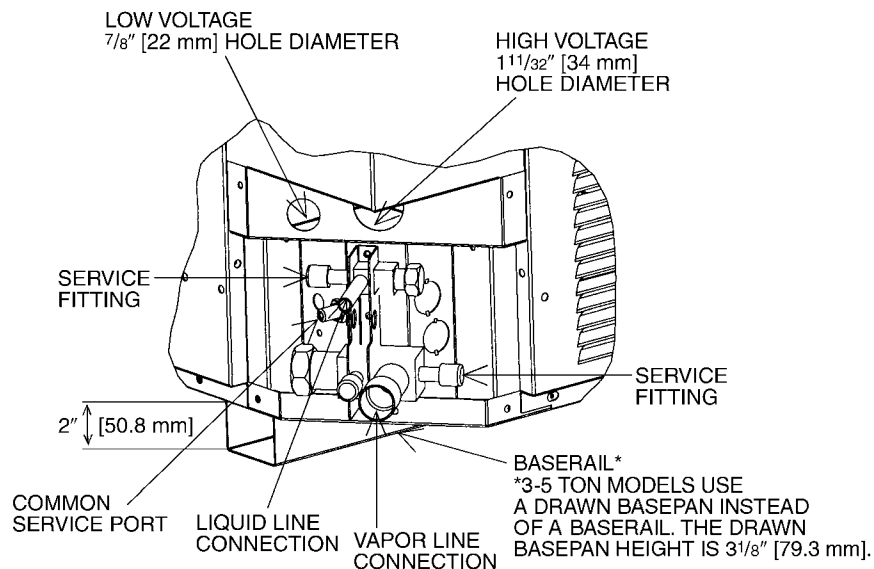
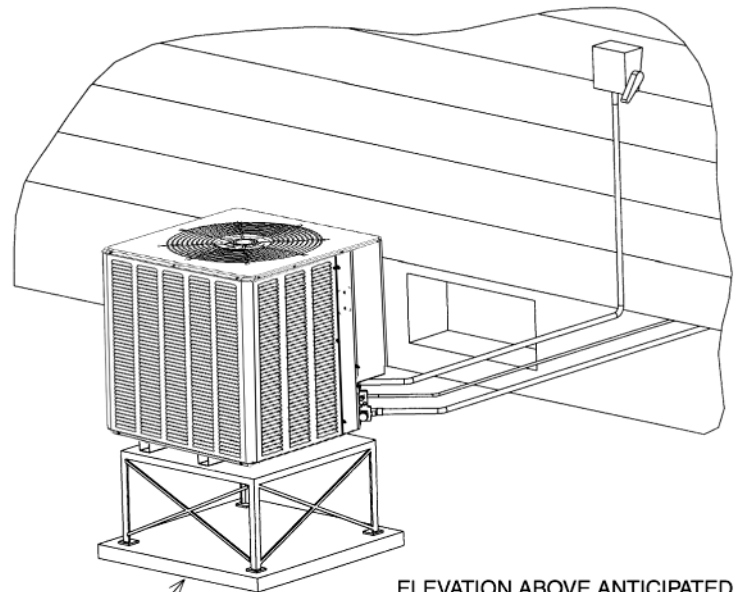
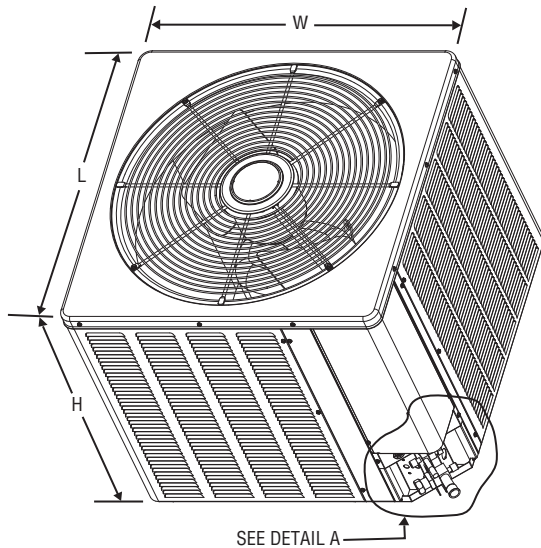
NOTE: Factory Refrigerant Charge includes refrigerant for 15 feet of standard line set.

[] Designates Metric Conversions

Unit Dimensions

| Model Number 13PJP | Height "H" (Inches) [mm] | Length "L" (Inches) [mm] | Width "W" (Inches) [mm] |
|-----------------------|---|---|---|
| 18, 24 | 26 ¹ / ₄ [666.75] | 23 ⁵ / ₈ [600.07] | 23 ⁵ / ₈ [600.07] |
| 30 | 26 ¹ / ₄ [666.75] | 27 ⁵ / ₈ [701.67] | 27 ⁵ / ₈ [701.67] |
| 36 | 27 ³ / ₈ [695.32] | 31 ⁵ / ₈ [803.27] | 31 ⁵ / ₈ [803.27] |
| 42, 48 | 35 ³ / ₈ [898.52] | 31 ⁵ / ₈ [803.27] | 31 ⁵ / ₈ [803.27] |

[] Designates Metric Conversions



DETAIL A

Heat Pump Refrigerant Line Size Information

| System Capacity | Line Size Connection Size (Inch I.D.) [mm] | Line Size (Inch O.D.) [mm] | Liquid Line Sizing (R410A) Outdoor Unit Above or Below Indoor Coil (Heat Pumps Only) | | | | | |
|-----------------|--|----------------------------|---|------------|------------|-------------|-------------|-------------|
| | | | Total Equivalent Length—Feet [m] | | | | | |
| | | | 25 [7.62] | 50 [15.24] | 75 [22.86] | 100 [30.48] | 125 [38.10] | 150 [45.72] |
| | | | Maximum Vertical Separation—Feet [m] | | | | | |
| 1½ Ton | 3/8" [9.53] | 1/4 [6.35] | 25 [7.62] | 40 [12.19] | 25 [7.62] | 9 [2.74] | N/A | N/A |
| | | 5/16 [7.94] | 25 [7.62] | 50 [15.24] | 62 [18.90] | 58 [17.68] | 53 [16.15] | 49 [14.94] |
| | | 3/8* [9.53] | 25 [7.62] | 50 [15.24] | 75 [22.86] | 72 [21.95] | 70 [21.34] | 68 [20.73] |
| 2 Ton | 3/8" [9.53] | 1/4 [6.35] | 23 [7.01] | N/A | N/A | N/A | N/A | N/A |
| | | 5/16 [7.94] | 25 [7.62] | 36 [10.97] | 29 [8.84] | 23 [7.01] | 16 [4.88] | 9 [2.74] |
| | | 3/8* [9.53] | 25 [7.62] | 50 [15.24] | 72 [21.95] | 70 [21.34] | 68 [20.73] | 65 [19.81] |
| 2½ Ton | 3/8" [9.53] | 1/4 [6.35] | 25 [7.62] | N/A | N/A | N/A | N/A | N/A |
| | | 5/16 [7.94] | 25 [7.62] | 49 [14.94] | 38 [11.58] | 27 [8.23] | 17 [5.18] | 6 [1.83] |
| | | 3/8* [9.53] | 25 [7.62] | 50 [15.24] | 68 [20.73] | 65 [19.81] | 62 [18.90] | 58 [17.68] |
| 3 Ton | 3/8" [9.53] | 5/16 [7.94] | 25 [7.62] | 50 [15.24] | 37 [11.28] | 22 [6.71] | 7 [2.13] | N/A |
| | | 3/8* [9.53] | 25 [7.62] | 50 [15.24] | 68 [20.73] | 63 [19.20] | 58 [17.68] | 53 [16.15] |
| 3½ Ton | 3/8" [9.53] | 5/16 [7.94] | 25 [7.62] | 23 [7.01] | 4 [1.22] | N/A | N/A | N/A |
| | | 3/8* [9.53] | 25 [7.62] | 50 [15.24] | 43 [13.11] | 36 [10.97] | 30 [9.14] | 24 [7.32] |
| 4 Ton | 3/8" [9.53] | 3/8* [9.53] | 25 [7.62] | 46 [14.02] | 38 [11.58] | 30 [9.14] | 22 [6.71] | 15 [4.57] |
| | | 1/2 [12.7] | 25 [7.62] | 50 [15.24] | 56 [17.07] | 55 [16.76] | 53 [16.15] | 52 [15.85] |

NOTES:
*Standard line size
N/A = Application not recommended.

| Suction Line Length/Size versus Capacity Multiplier (R-410A) | | | | | | | |
|--|---|--|---|---|-------------------|-------------------|-------------------|
| Unit Size | 1½ Ton | 2 Ton | 2½ Ton | 3 Ton | 3½ Ton | 4 Ton | |
| Suction Line Connection Size | 3/4" [19.05] I.D. | | | 7/8" [22.23] I.D. | | | |
| Suction Line Run—Feet [m] | 5/8" [15.88 mm] O.D. Opt. 3/4" [19.05 mm] O.D. Std.* | 5/8" [15.88 mm] O.D. Opt. 3/4" [19.05 mm] O.D. Std.* 7/8" [22.23 mm] O.D. Opt. | 3/4" [19.05 mm] O.D. Opt. 7/8" [22.23 mm] O.D. Std.* | 7/8" [22.23 mm] O.D. Opt. 1 1/8" [28.58 mm] O.D. Std.* | | | |
| 25' [7.62] | Optional Standard Optional | 1.00 1.00 — | 1.00 1.00 — | 1.00 1.00 1.00 | 1.00 1.00 — | 1.00 1.00 — | 1.00 1.00 — |
| 50' [15.24] | Optional Standard Optional | 0.98 0.99 — | 0.98 0.99 — | 0.96 0.98 0.99 | 0.98 0.99 — | 0.99 0.99 — | 0.99 0.99 — |
| 100' [30.48] | Optional Standard Optional | 0.95 0.96 — | 0.95 0.96 — | 0.94 0.96 0.97 | 0.96 0.97 — | 0.96 0.98 — | 0.96 0.98 — |
| 150' [45.72] | Optional Standard Optional | 0.92 0.93 — | 0.92 0.94 — | 0.91 0.93 0.95 | 0.94 0.95 — | 0.94 0.96 — | 0.95 0.96 — |

NOTES:
*Standard line size
N/A = Using suction line larger than shown in chart will result in poor oil return and is not recommended. [] Designates Metric Conversions

GENERAL TERMS OF LIMITED WARRANTY*

Rheem will furnish a replacement for any part of this product which fails in normal use and service within the applicable period stated, in accordance with the terms of the limited warranty.

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

Conditional Compressor
(Registration Required)Ten (10) Years
Conditional Parts
(Registration Required)Ten (10) Years



The new degree of comfort.™

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

Rheem Heating, Cooling & Water Heating • P.O. Box 17010
Fort Smith, Arkansas 72917 • www.rheem.com

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



INTEGRATED HOME COMFORT

PRINTED IN U.S.A 10/12 QG FORM NO. P11-805