



The new degree of comfort.™

## Rheem *Classic Plus*® Series Two-Stage Multi-position Gas Furnaces

### R96P- Series

96% A.F.U.E.†\*

Input Rates from 40 to 115 kBTU  
[11.72 to 33.71 kW]



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

\*Up to 96% A.F.U.E.

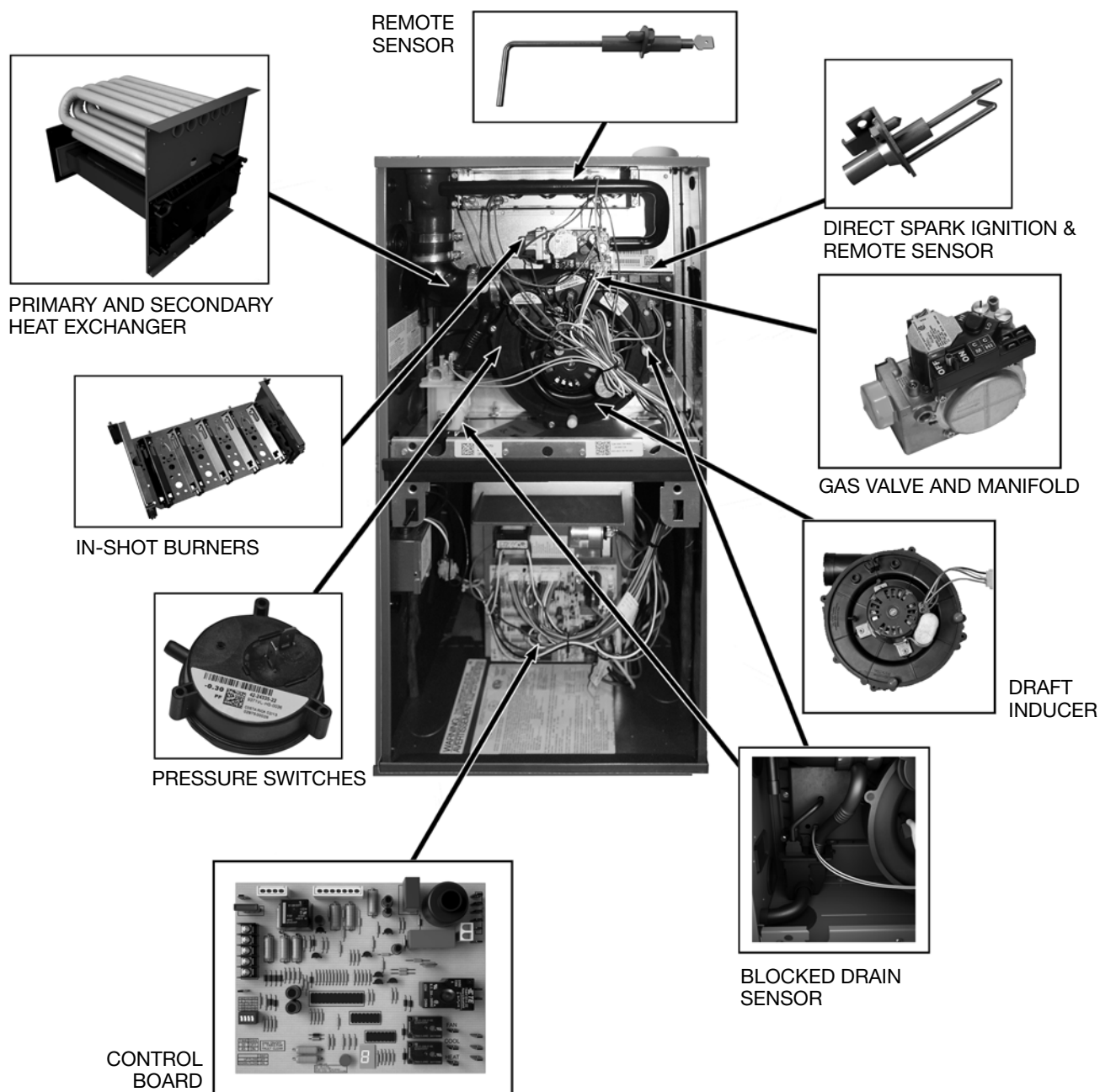


- Up to 96% residential gas furnace CSA certified
- 4 way multi-poise design
- Two stages of operation to save energy and maintain optimal comfort level.
- PlusOne™ Diagnostics 7-Segment LED all units
- PlusOne™ Ignition System – DSI for reliability and longevity
- PlusOne™ Water Management System with patented Blocked Drain Sensor
- Heat exchanger is removable for improved serviceability. Aluminized steel primary and stainless steel secondary construction provide maximum corrosion resistance and thermal fatigue reliability.
- Low profile “34 inch” cabinet ideal for space constrained installations.
- Blower Shelf design – serviceable in all furnace orientations
- Pre marked hoses – insures proper system drainage
- Vent with 2" or 3" PVC
- Replaceable Collector box
- Hemmed edges on cabinet and doors
- Quarter turn fasteners for tool less access
- Integrated control boards feature dip switches for easy system set up
- Self priming condensate trap
- Solid bottom included



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## STANDARD EQUIPMENT

Completely assembled and wired; blocked drain sensor, 7 segment LED and marked hoses; heat exchanger; primary: aluminized steel, secondary: 29-4C stainless steel; 2 stage induced draft; pressure switches; redundant 2 stage main gas control; blower compartment door safety switch; solid state time on/off blower control; limit controls; manual shut-off valve; 100% safety lock out; cool fan off delay; field selectable heat fan off delay; one hour automatic retry; power and self-test diagnostics; flame sense current diagnostics; electronic air cleaner connections; twinning (built-in) features; humidifier connections; humidifier on/off delay; low speed continuous fan option; single speed option for heating and cooling applications; transformer; direct drive, multi-speed blower motor. Solid bottom. (Please note: a thermostat is not included as standard equipment.)

## OPTIONAL EQUIPMENT

Side and bottom filter racks; return air cabinet for all sizes.

NOTE: Furnace is not listed for use with fuels other than natural or L.P. (propane) gas.

All models can be converted by a qualified distributor or local service dealer to use L.P. (propane) gas without changing burners. Factory approved kits must be used to convert from natural to L.P. (propane) gas and may be ordered as optional accessories from a parts distributor.

For L.P. (propane) operation, refer to Conversion Kit Index Form.

**WARNING**  
 THIS FURNACE IS NOT APPROVED  
 OR RECOMMENDED  
 FOR USE IN MOBILE HOMES

## Physical Data and Specifications—Upflow Models

### U.S. and Canadian Models

| MODEL NUMBERS                                          | R96PA0402317MSA       | R96PA0602317MSA       | R96PA0702317MSA       | R96PA0852521MSA        | R96PA1002521MSA        | R96PA1152524MSA        |
|--------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------------|------------------------|------------------------|
| HIGH FIRE INPUT BTU/HR [kW] ①                          | 42,000 [12.31]        | 56,000 [16.41]        | 70,000 [20.50]        | 84,000 [24.61]         | 98,000 [28.72]         | 112,000 [32.82]        |
| LOW FIRE INPUT BTU/HR [kW]                             | 29,400 [8.61]         | 39,200 [11.49]        | 49,000 [14.36]        | 58,800 [17.23]         | 68,600 [20.11]         | 78,400 [22.97]         |
| HEATING CAPACITY BTU/HR [kW]                           | 41,000 [12.02]        | 54,000 [15.83]        | 68,000 [19.93]        | 81,000 [23.74]         | 94,000 [27.55]         | 109,000 [31.95]        |
| HIGH ALTITUDE OUTPUT<br>10% DERATE [kW] ②              | 36,288 [10.64]        | 48,384 [14.18]        | 60,480 [17.72]        | 72,576 [21.28]         | 84,672 [24.81]         | 96,768 [28.36]         |
| BLOWER (D x W)<br>[mm]                                 | 11 x 7<br>[279 x 178] | 11 x 8<br>[279 x 203] | 11 x 8<br>[279 x 203] | 11 x 10<br>[279 x 254] | 11 x 10<br>[279 x 254] | 11 x 11<br>[279 x 279] |
| MOTOR H.P. [W]—<br>TYPE                                | 1/4 [187]-4-PSC       | 1/2 [373]-4-PSC       | 1/2 [373]-4-PSC       | 3/4 [559]-4-PSC        | 3/4 [559]-4-PSC        | 3/4 [559]-4-PSC        |
| MIN. CIRCUIT AMPACITY                                  | 6                     | 9                     | 9                     | 11                     | 11                     | 11                     |
| MIN. OVERLOAD PROTECTION<br>DEVICE                     | 15                    | 15                    | 15                    | 15                     | 15                     | 15                     |
| MAX. OVERLOAD PROTECTION<br>DEVICE                     | 15                    | 15                    | 15                    | 15                     | 15                     | 15                     |
| HEATING SPEED                                          | MED-HIGH              | MED-HIGH              | MED-HIGH              | MED-HIGH               | MED-HIGH               | MED-HIGH               |
| COOLING SPEED                                          | HIGH                  | HIGH                  | HIGH                  | HIGH                   | HIGH                   | HIGH                   |
| MINIMUM EXT. STATIC<br>PRESSURE (IN. W.C.) [kPa]       | .18 [.045]            | .20 [.050]            | .23 [.057]            | .28 [.070]             | .28 [.070]             | .28 [.070]             |
| MAXIMUM EXT. STATIC<br>PRESSURE (IN. W.C.) [kPa]       | 0.8 [0.19]            | 0.8 [0.19]            | 0.8 [0.19]            | 0.8 [0.19]             | 0.8 [0.19]             | 0.8 [0.19]             |
| HEATING CFM @ .2" [.049 kPa]<br>W.C. E.S.P. [L/s]      | 1049 [494]            | 1139 [537]            | 1211 [571]            | 1704 [804]             | 1748 [825]             | 1750 [825]             |
| COOLING CFM @ .5" [.124 kPa]<br>W.C. E.S.P. [L/s]      | 1121 [528]            | 1232 [581]            | 1318 [622]            | 1742 [822]             | 1782 [841]             | 1934 [912]             |
| TEMPERATURE RISE-HIGH FIRE<br>RANGE IN DEGREES °F [°C] | 20 - 50<br>[11 - 28]  | 30 - 60<br>[17 - 33]  | 40 - 70<br>[22 - 39]  | 30 - 60<br>[17 - 33]   | 40 - 70<br>[22 - 39]   | 45 - 75<br>[25 - 42]   |
| TEMPERATURE RISE-LOW FIRE<br>RANGE IN DEGREES °F [°C]  | 15 - 45<br>[8 - 25]   | 20 - 50<br>[11 - 28]  | 30 - 60<br>[17 - 33]  | 20 - 50<br>[11 - 28]   | 30 - 60<br>[17 - 33]   | 35 - 65<br>[19 - 36]   |
| APPROX. SHIPPING WEIGHT<br>(LBS.) [kg]                 | 123.5 [56]            | 128 [58]              | 132 [60]              | 147.5 [67]             | 152 [69]               | 165 [75]               |
| AFUE ③                                                 | 96.00%                | 96.00%                | 96.00%                | 95.00%                 | 95.00%                 | 96.00%                 |

NOTES: All models are 115V, 60HZ, 1 phase Gas connection size for all models is 1/2" [13 mm] N.P.T.

① Installation instructions for high altitude derate.

② Canadian installations only.

③ In accordance with D.O.E. test procedures.

\*S=Standard Models

NOTE: Standard model complies with California low nox requirements.

This furnace does not meet air district requirements of 14 ng/J NOx emissions limit, and thus is subject to a mitigation fee of up to \$450. This furnace is not eligible for the Clean Air Furnace Rebate Program: [www.CleanAirFurnaceRebate.com](http://www.CleanAirFurnaceRebate.com).

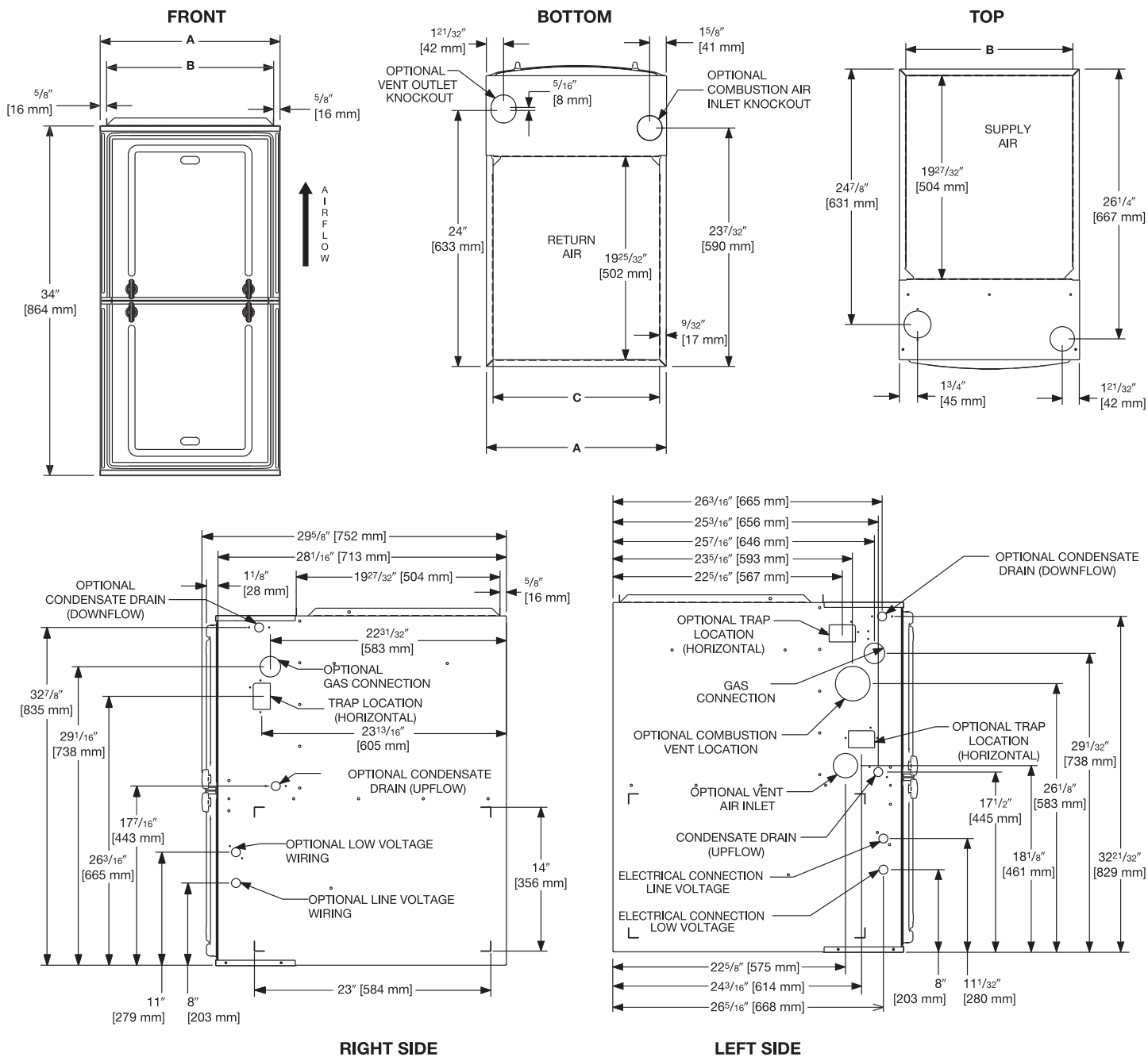
This furnace is to be installed for propane firing only in air districts requiring 14 ng/J NOx emission limits. Operating in natural gas mode is in violation of these Rules.

[ ] Designates Metric Conversions

Model Number Identification

| <u>R</u> | <u>96</u>                  | <u>P</u>       | <u>A</u>                        | <u>—</u> | <u>040</u>               | <u>2</u>    | <u>3</u>                                        | <u>17</u>                                               | <u>M</u>                          | <u>S</u>     | <u>A</u>                                               |
|----------|----------------------------|----------------|---------------------------------|----------|--------------------------|-------------|-------------------------------------------------|---------------------------------------------------------|-----------------------------------|--------------|--------------------------------------------------------|
| Rheem    | Series<br>96%<br>Efficient | Motor -<br>PSC | Design Series<br>A = 1st Design |          | Input<br>BTU/HR          | Stage - Two | Airflow<br>3 - Up to 3 Tons<br>5 - Up to 5 Tons | Cabinet Width<br>17 = 17.5"<br>21 = 21.0"<br>24 = 24.5" | Configuration -<br>Multi-Position | S = Standard | Revision -<br>Marketing<br>(A - First Time<br>Release) |
|          |                            |                |                                 |          | 040 = 42,000 [12.31 kW]  |             |                                                 |                                                         |                                   |              |                                                        |
|          |                            |                |                                 |          | 060 = 56,000 [16.41 kW]  |             |                                                 |                                                         |                                   |              |                                                        |
|          |                            |                |                                 |          | 070 = 70,000 [20.51 kW]  |             |                                                 |                                                         |                                   |              |                                                        |
|          |                            |                |                                 |          | 085 = 84,000 [24.62 kW]  |             |                                                 |                                                         |                                   |              |                                                        |
|          |                            |                |                                 |          | 100 = 98,000 [28.72 kW]  |             |                                                 |                                                         |                                   |              |                                                        |
|          |                            |                |                                 |          | 115 = 112,000 [32.82 kW] |             |                                                 |                                                         |                                   |              |                                                        |

[ ] Designates Metric Conversions



## UNIT DIMENSIONS (CLEARANCE TO COMBUSTIBLES)

| MODEL<br>R96P | LEFT<br>SIDE | MINIMUM CLEARANCE (IN.) [mm] |      |        |        |      | SHIP<br>WGTS. | FLANGE DIMENSIONS |                |                |
|---------------|--------------|------------------------------|------|--------|--------|------|---------------|-------------------|----------------|----------------|
|               |              | RIGHT<br>SIDE                | BACK | TOP    | FRONT  | VENT |               | A                 | B              | C              |
| 040           | 0            | 0                            | 0    | 1 [25] | 2 [51] | 0    | 123.5 [56]    | 17 1/2 [445]      | 16 17/64 [413] | 16 13/64 [412] |
| 060           | 0            | 0                            | 0    | 1 [25] | 2 [51] | 0    | 128 [58]      | 17 1/2 [445]      | 16 17/64 [413] | 16 13/64 [412] |
| 070           | 0            | 0                            | 0    | 1 [25] | 2 [51] | 0    | 132 [60]      | 17 1/2 [445]      | 16 17/64 [413] | 16 13/64 [412] |
| 085           | 0            | 0                            | 0    | 1 [25] | 2 [51] | 0    | 147.5 [67]    | 21 [533]          | 19 49/64 [502] | 19 45/64 [500] |
| 100           | 0            | 0                            | 0    | 1 [25] | 2 [51] | 0    | 152 [69]      | 21 [533]          | 19 49/64 [502] | 19 45/64 [500] |
| 115           | 0            | 0                            | 0    | 1 [25] | 2 [51] | 0    | 165 [75]      | 24 1/2 [662]      | 23 17/64 [591] | 23 13/64 [589] |

\*A service clearance of at least 24" is recommended in front of all furnaces  
Supply and return depicted as upflow configuration.  
Flange configuration will vary depending on installation orientation.

[ ] Designates Metric Conversions



Air

| MODEL            | BLOWER SIZE<br>[mm]    | MOTOR<br>H.P.<br>[W] | BLOWER<br>SPEED | CFM [L/s] AIR DELIVERY<br>EXTERNAL STATIC PRESSURE INCHES WATER COLUMN [kPa] |            |            |            |            |            |            |            |
|------------------|------------------------|----------------------|-----------------|------------------------------------------------------------------------------|------------|------------|------------|------------|------------|------------|------------|
|                  |                        |                      |                 | 0.1 [.02]                                                                    | 0.2 [.05]  | 0.3 [.07]  | 0.4 [.10]  | 0.5 [.12]  | 0.6 [.15]  | 0.7 [.17]  | 0.8 [.19]  |
| R96PA<br>0402317 | 11 x 7<br>[279 x 178]  | 1/4<br>[187]         | LOW             | 732 [345]                                                                    | 695 [328]  | 669 [316]  | 639 [301]  | 605 [285]  | 547 [258]  | 512 [242]  | 487 [230]  |
|                  |                        |                      | MED-LO          | 875 [413]                                                                    | 845 [399]  | 820 [387]  | 792 [374]  | 766 [361]  | 726 [342]  | 659 [311]  | 605 [286]  |
|                  |                        |                      | <b>MED-HI*</b>  | 1073 [506]                                                                   | 1049 [495] | 1004 [474] | 975 [460]  | 943 [445]  | 900 [425]  | 864 [408]  | 798 [376]  |
|                  |                        |                      | HIGH            | 1279 [603]                                                                   | 1239 [584] | 1213 [572] | 1174 [554] | 1121 [529] | 1069 [504] | 1033 [487] | 980 [462]  |
| R96PA<br>0602317 | 11 x 8<br>[279 x 203]  | 1/2<br>[373]         | LOW             | 830 [392]                                                                    | 793 [374]  | 755 [356]  | 705 [333]  | 654 [308]  | 599 [283]  | 544 [257]  | 496 [234]  |
|                  |                        |                      | MED-LO          | 940 [443]                                                                    | 908 [428]  | 875 [413]  | 821 [387]  | 766 [361]  | 710 [333]  | 653 [308]  | 584 [275]  |
|                  |                        |                      | <b>MED-HI*</b>  | 1168 [551]                                                                   | 1139 [537] | 1109 [523] | 1060 [500] | 1010 [476] | 942 [444]  | 874 [412]  | 802 [378]  |
|                  |                        |                      | HIGH            | 1421 [670]                                                                   | 1385 [653] | 1349 [636] | 1291 [609] | 1232 [581] | 1147 [541] | 1062 [501] | 976 [460]  |
| R96PA<br>0702317 | 11 x 8<br>[279 x 203]  | 1/2<br>[373]         | LOW             | 852 [402]                                                                    | 827 [390]  | 802 [378]  | 752 [355]  | 701 [331]  | 662 [312]  | 623 [294]  | 580 [274]  |
|                  |                        |                      | MED-LO          | 986 [465]                                                                    | 955 [450]  | 923 [435]  | 883 [417]  | 843 [398]  | 790 [373]  | 737 [348]  | 686 [324]  |
|                  |                        |                      | <b>MED-HI*</b>  | 1238 [584]                                                                   | 1211 [571] | 1183 [558] | 1139 [537] | 1094 [516] | 1036 [489] | 978 [461]  | 897 [423]  |
|                  |                        |                      | HIGH            | 1493 [704]                                                                   | 1452 [685] | 1410 [665] | 1364 [643] | 1318 [622] | 1257 [593] | 1195 [564] | 1084 [511] |
| R96PA<br>0852521 | 11 x 10<br>[279 x 254] | 3/4<br>[559]         | LOW             | 1313 [619]                                                                   | 1275 [601] | 1236 [583] | 1221 [576] | 1184 [558] | 1141 [538] | 1098 [518] | 1053 [497] |
|                  |                        |                      | MED-LO          | 1488 [702]                                                                   | 1452 [685] | 1415 [667] | 1384 [653] | 1328 [626] | 1279 [603] | 1229 [580] | 1170 [552] |
|                  |                        |                      | <b>MED-HI*</b>  | 1732 [817]                                                                   | 1704 [804] | 1676 [791] | 1630 [769] | 1579 [745] | 1498 [707] | 1417 [668] | 1343 [633] |
|                  |                        |                      | HIGH            | 1983 [935]                                                                   | 1929 [910] | 1874 [884] | 1810 [854] | 1742 [822] | 1663 [784] | 1583 [747] | 1477 [697] |
| R96PA<br>1002521 | 11 x 10<br>[279 x 254] | 3/4<br>[559]         | LOW             | 1329 [627]                                                                   | 1313 [619] | 1296 [611] | 1260 [594] | 1224 [577] | 1171 [552] | 1117 [527] | 1049 [495] |
|                  |                        |                      | MED-LO          | 1535 [724]                                                                   | 1498 [707] | 1461 [689] | 1422 [671] | 1382 [652] | 1325 [625] | 1268 [598] | 1203 [567] |
|                  |                        |                      | <b>MED-HI*</b>  | 1796 [847]                                                                   | 1748 [825] | 1700 [802] | 1656 [781] | 1612 [760] | 1536 [725] | 1460 [689] | 1370 [646] |
|                  |                        |                      | HIGH            | 2019 [952]                                                                   | 1961 [925] | 1903 [898] | 1843 [869] | 1782 [841] | 1687 [796] | 1592 [751] | 1489 [702] |
| R96PA<br>1152524 | 11 x 11<br>[279 x 279] | 3/4<br>[559]         | LOW             | 1249 [589]                                                                   | 1234 [582] | 1219 [575] | 1183 [558] | 1146 [541] | 1112 [525] | 1078 [508] | 1017 [480] |
|                  |                        |                      | MED-LO          | 1440 [679]                                                                   | 1429 [674] | 1417 [668] | 1381 [651] | 1344 [634] | 1313 [619] | 1281 [604] | 1221 [576] |
|                  |                        |                      | <b>MED-HI*</b>  | 1770 [835]                                                                   | 1750 [825] | 1730 [816] | 1696 [800] | 1662 [784] | 1611 [760] | 1559 [735] | 1463 [690] |
|                  |                        |                      | HIGH            | 2123 [1001]                                                                  | 2077 [980] | 2031 [958] | 1983 [935] | 1934 [912] | 1856 [875] | 1777 [838] | 1665 [785] |

\*Factory setting for heat all grey cells are valid heating settings. Do not use speed tabs and/or static pressure which do not fall into the grey cells on this table.

NOTE: Unit tested without filters.

[ ] Designates Metric Conversions.



## VENT TERMINATION KITS: =

**RXGY-E02:** Vertical/Horizontal Concentric Vent Termination Kit  
2" Pipe (US Only)

**RXGY-E02A:** Vertical/Horizontal Concentric Vent Termination Kit  
2" Pipe (US & Canadian)

**RXGY-E03:** Vertical/Horizontal Concentric Vent Termination Kit  
3" Pipe (US Only)

**RXGY-E03A:** Vertical/Horizontal Concentric Vent Termination Kit  
3" Pipe (US & Canadian)

**RXGY-G02:** Direct Vent Furnace Side Wall Vent 2" or 3" (US Only)

**RXGY-D05:** Combustion Air Drain Kit 2"

**RXGY-D06:** Combustion Air Drain Kit 3"

**NEUTRALIZER KIT:** RXGY-A01  
(Replacement Cartridge 54-22120-01)

**FOSSIL FUEL KIT:** RXPF-F01, RXPF-F02 (TVA)

**EXTERNAL BOTTOM FILTER (UPFLOW/HORIZONTAL) RACK:**  
RXGF-CB

**EXTERNAL SIDE (UPFLOW) FILTER RACK:** RXGF-CD

**EXTERNAL (DOWNFLOW) FILTER RACK:** RXGF-CC

| FILTER RACK FILTER SIZES* INCHES [mm] |                                                    |                                                    |                        |
|---------------------------------------|----------------------------------------------------|----------------------------------------------------|------------------------|
| MODEL                                 | RXGF-CB<br>(UPFLOW/<br>HORIZONTAL)                 | RXGF-CD<br>(UPFLOW)                                | RXGF-CC<br>(DOWNFLOW)  |
| R96PA040                              | 15 <sup>3</sup> / <sub>4</sub> x 25<br>[400 x 635] | 15 <sup>3</sup> / <sub>4</sub> x 25<br>[400 x 635] | 12 x 20<br>[305 x 508] |
| R96PA060                              | 15 <sup>3</sup> / <sub>4</sub> x 25<br>[400 x 635] | 15 <sup>3</sup> / <sub>4</sub> x 25<br>[400 x 635] | 12 x 20<br>[305 x 508] |
| R96PA070                              | 15 <sup>3</sup> / <sub>4</sub> x 25<br>[400 x 635] | 15 <sup>3</sup> / <sub>4</sub> x 25<br>[400 x 635] | 12 x 20<br>[305 x 508] |
| R96PA085                              | 19 <sup>1</sup> / <sub>4</sub> x 25<br>[489 x 635] | 15 <sup>3</sup> / <sub>4</sub> x 25<br>[400 x 635] | 12 x 20<br>[305 x 508] |
| R96PA100                              | 19 <sup>1</sup> / <sub>4</sub> x 25<br>[489 x 635] | 15 <sup>3</sup> / <sub>4</sub> x 25<br>[400 x 635] | 12 x 20<br>[305 x 508] |
| R96PA115                              | 22 <sup>3</sup> / <sub>4</sub> x 25<br>[578 x 635] | 15 <sup>3</sup> / <sub>4</sub> x 25<br>[400 x 635] | 14 x 20<br>[356 x 508] |

\*Filter racks are shipped without filters.

Filters shipped with furnace may be used or a suitable 1" [25.4 mm] filter.

## INDOOR COIL CASINGS

| MODEL<br>NUMBER |
|-----------------|
| RXBC-D17A1      |
| RXBC-D21A1      |
| RXBC-D21B1      |
| RXBC-D24A1      |

## FOR HIGH ALTITUDES:

**NOTE:** For Canadian installations only, an optional derate (manifold gas pressure reduction) method may be used to adjust the furnace for altitude. See Installation Instructions for more information. This optional method may **NOT** be used for U.S. installations. See installation instructions as appropriate orifice change is required.

**L.P. CONVERSION KIT:** RXGJ-FP34

**CONDENSATE PUMP KIT:** PROSTOCK & 1PCB151TUL

**DOWNFLOW/HORIZONTAL CONVERSION KIT:** RXGY-CK

**DOWNFLOW/HORIZONTAL LEFT ZERO CLEARANCE  
CONVERSION KIT:** RXGY-ZK

**COMBUSTIBLE FLOOR BASE:** RXGC-B17  
RXGC-B21  
RXGC-B24

[ ] 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 Parts<br>(Registration Required) ..... | Ten (10) Years   |
| Heat Exchanger .....                               | Limited Lifetime |







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](http://www.rheem.com)

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



INTEGRATED HOME COMFORT

PRINTED IN U.S.A. 9/18 QG FORM NO. G11-539 REV. 6