



The new degree of comfort.™

Rheem Value Series Downflow/Horizontal Gas Furnace

RGTS- Series

Up to 92.4% A.F.U.E.†
Input Rates 45-120 kBTU



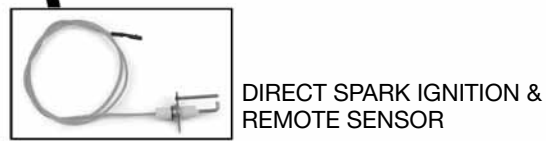
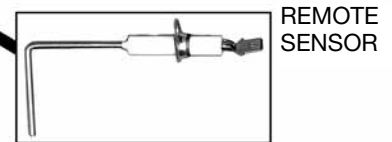
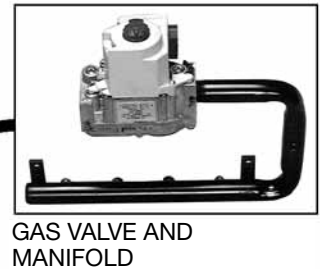
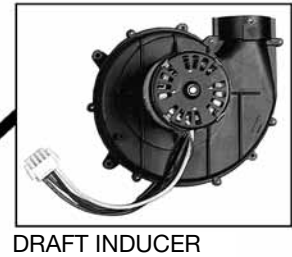
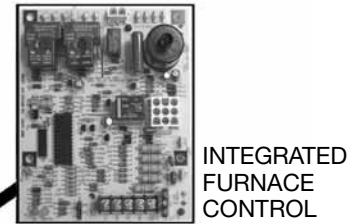
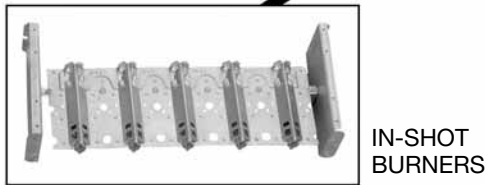
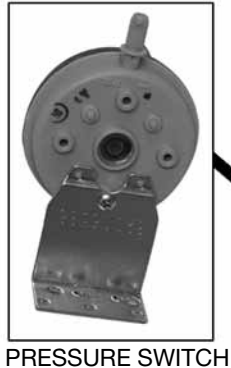
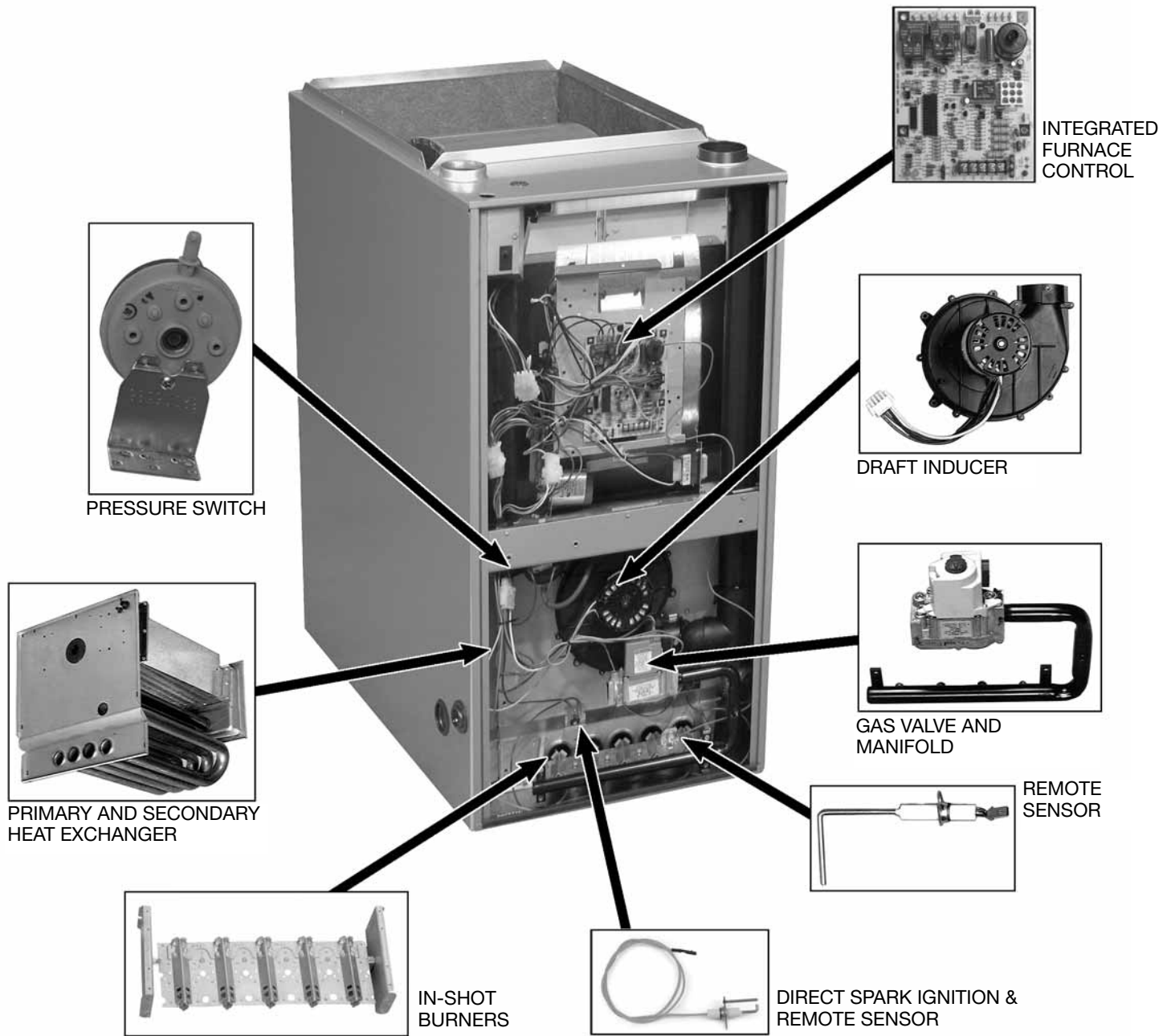
†A.F.U.E. (Annual Fuel Utilization Efficiency) calculated in accordance with Department of Energy test procedures.



- The Rheem Value Series 90 High Efficiency line of downflow/horizontal gas furnaces are designed for utility rooms, closets, alcoves, attics or crawl spaces. The RGTS is shipped in the downflow configuration and is easily converted for horizontal **left-hand** airflow applications.
- The design is certified by CSA.
- Low profile “34 inch” design is lighter and easier to handle and leaves room for optional accessories.
- Top electrical connections, left or right gas and condensate drainage connections on downflow models.
- Condensate drain for horizontal application provided standard.
- Integrated control board manages all operational functions and provides hookups for an electronic air cleaner.
- A slow-opening gas valve and a specially designed inducer system make it one of the quietest furnaces on the market today.
- Galvanized steel cabinet.
- Optional indoor or outdoor combustion air.
- Control board diagnostics.
- A variety of cooling coils and plenums designed to use with the Rheem Value Series 90 gas furnaces are available as optional accessories for air conditioning models.

TABLE OF CONTENTS

| | |
|--------------------------------------|-----|
| Standard & Optional Equipment | 3 |
| Physical Data & Specifications | 4 |
| Model Number Identification | 5 |
| Dimensional Data | 6-7 |
| Blower Performance Data | 8 |
| Accessories | 9 |
| Limited Warranty | 10 |



STANDARD EQUIPMENT

Completely assembled and wired; heat exchanger; primary: aluminized steel, secondary: 29-4C stainless steel; induced draft; pressure switch; redundant 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; self-test diagnostics; control diagnostics; electronic air cleaner connections; pressure regulator for natural and L.P. (propane) gases; transformer; direct drive, multi-speed blower motor. (Please note: a thermostat is not included as standard equipment.)

OPTIONAL EQUIPMENT

(See Accessory Page)

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—Downflow/Horizontal Models U.S. and Canadian Models

| MODEL NUMBERS RGTS- SERIES | 04EMAES | 06EMAES | 07EMAES | 07EYBGS | 09EZAGS | 09EZAJS | 10EZAJS | 12ERAJS |
|------------------------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| INPUT-BTU/HR [kW] ① | 45,000 [13.19] | 60,000 [17.58] | 75,000 [21.98] | 75,000 [21.98] | 90,000 [26.37] | 90,000 [26.37] | 105,000 [30.77] | 120,000 [35.17] |
| HEATING CAPACITY BTU/HR [kW] | 42,000 [12.31] | 56,000 [16.41] | 70,000 [20.51] | 70,000 [20.51] | 84,000 [24.61] | 84,000 [24.61] | 97,000 [28.43] | 113,000 [33.12] |
| HIGH ALTITUDE INPUT [kW] ② | 40,500 [11.87] | 54,000 [15.83] | 67,500 [19.78] | 67,500 [19.78] | 81,000 [23.73] | 81,000 [23.73] | 94,500 [27.70] | 108,000 [31.65] |
| HIGH ALTITUDE OUTPUT CAPACITY [kW] ② | 37,800 [11.07] | 50,400 [14.77] | 63,000 [18.46] | 63,000 [18.46] | 76,000 [22.27] | 76,000 [22.27] | 87,500 [25.64] | 100,000 [29.31] |
| BLOWER (D x W) [mm] | 11 x 7 [279 x 178] | 11 x 7 [279 x 178] | 11 x 7 [279 x 178] | 12 x 7 [305 x 178] | 12 x 11 [305 x 279] | 12 x 11 [305 x 279] | 12 x 11 [305 x 279] | 11 x 10 [279 x 254] |
| MOTOR H.P. [W] SPEEDS-TYPE | 1/2 [373] 4-PSC | 1/2 [373] 3-PSC | 1/2 [373] 3-PSC | 3/4 [559] 3-PSC | 1/2 [373] 3-PSC | 3/4 [559] 3-PSC | 3/4 [559] 3-PSC | 3/4 [559] 3-PSC |
| MOTOR FULL LOAD AMPS | 6.8 | 6.8 | 6.8 | 9.5 | 8.0 | 9.5 | 9.5 | 9.5 |
| HEATING SPEED | Med-Low | Low | Med | Low | Med | Low | Low | Low |
| COOLING SPEED | High | High | High | High | High | High | High | High |
| HEAT EXT. STATIC PRESSURE (IN. W.C.) [kPa] | .10 [.025] | .12 [.029] | .12 [.029] | .12 [.029] | .15 [.037] | .15 [.037] | .20 [.049] | .20 [.049] |
| RATED EXT. STATIC PRESSURE (IN. W.C.) [kPa] | .50 [.12] | .50 [.12] | .50 [.12] | .50 [.12] | .50 [.12] | .50 [.12] | .50 [.12] | .50 [.12] |
| HEATING C.F.M. @ .2" W.C. E.S.P. [L/s] | 890 [420] | 885 [418] | 1060 [500] | 1275 [602] | 1400 [661] | 1400 [661] | 1425 [673] | 1565 [739] |
| COOLING C.F.M. @ .5" W.C. E.S.P. [L/s] | 1220 [576] | 1180 [557] | 1150 [543] | 1625 [767] | 1570 [740] | 1850 [873] | 1820 [859] | 2040 [963] |
| TEMPERATURE RISE RANGE °F [°C] | 30-60 [16.7-33.3] | 40-70 [22.2-38.9] | 45-75 [25-41.7] | 35-65 [19.4-36.1] | 35-65 [19.4-36.1] | 35-65 [19.4-36.1] | 50-80 [27.8-44.4] | 50-80 [27.8-44.4] |
| STANDARD FILTER [mm] | (2) 12" x 20" [305 x 508] | (2) 12" x 20" [305 x 508] | (2) 12" x 20" [305 x 508] | (2) 12" x 20" [305 x 508] | (2) 12" x 20" [305 x 508] | (2) 12" x 20" [305 x 508] | (2) 12" x 20" [305 x 508] | (2) 14" x 20" [609 x 508] |
| APPROX. SHIPPING WEIGHT (LBS.) [kg] | 111 [50.3] | 117 [53.1] | 123 [55.8] | 123 [55.8] | 148 [67.1] | 148 [67.1] | 152 [68.9] | 160 [72.6] |
| AFUE ③ | 92.0% | 92.4% | 92.0% | 92.3% | 92.4% | 92.4% | 92.0% | 92.1% |
| CALIFORNIA SEASONAL EFFICIENCY ③ | 84.35% | 86.46% | 89.96% | 85.00% | 86.40% | 86.40% | 87.02% | 87.37% |

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

① See Conversion Kit Index Form for high altitude derate.

② Canadian installations only.

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

[] Designates Metric Conversions



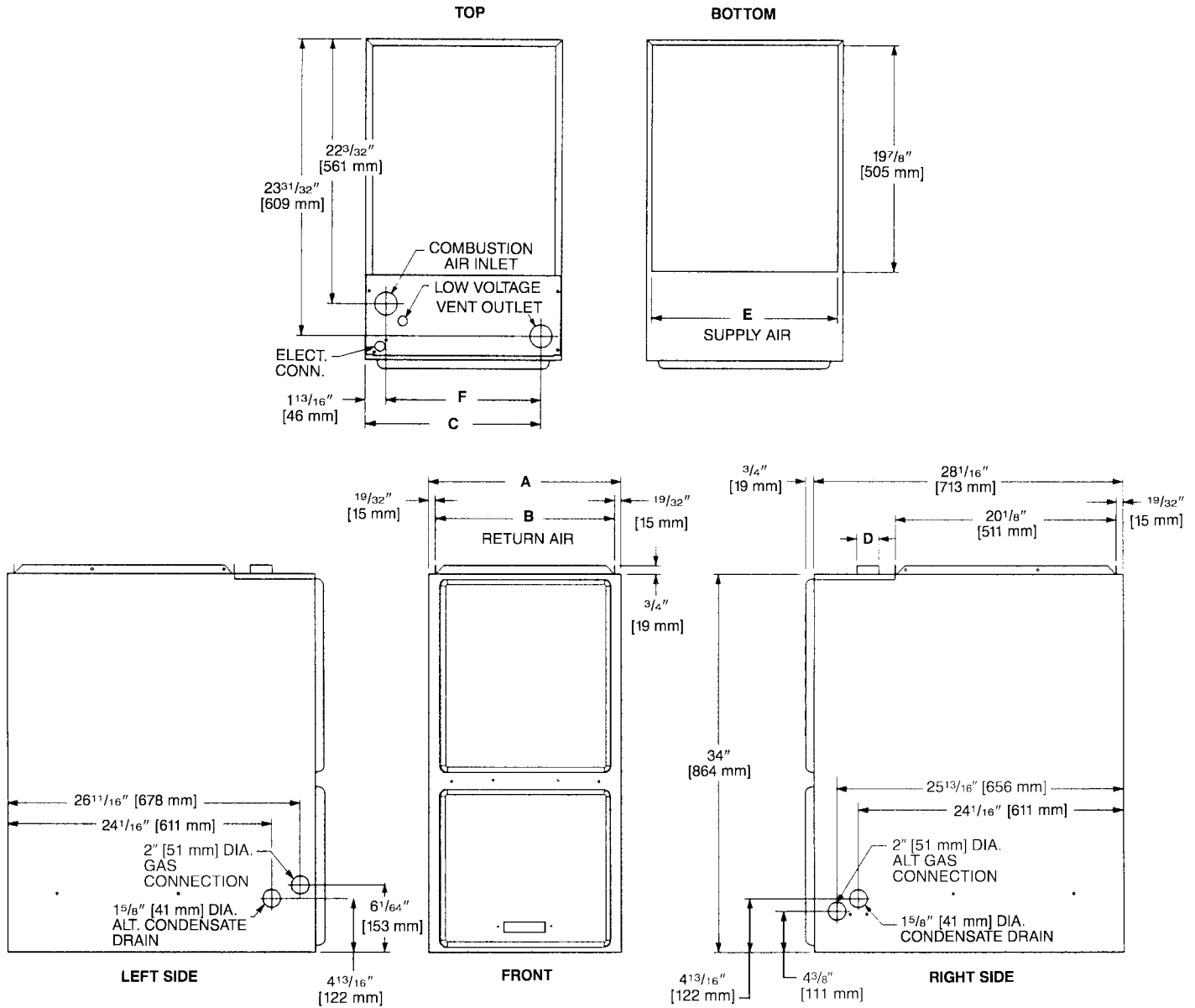
Model Number Identification

| <u>R</u> | <u>G</u> | <u>T</u> | <u>S</u> | — | <u>04E</u> | <u>M</u> | <u>A</u> | <u>E</u> | <u>S</u> |
|-----------------------|----------------|-----------------------------|--------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| R H E E M | Gas Furnace | T = Downflow/ Condensing | Design Series S = 3rd Design Series | | Heating Input Designation <u>Electric Ignition</u> Input BTU/HR [kW] | Blower Designation [mm] | Variations A = Std. B = Wide Cabinet | Heating & Cooling Designation E = 1100-1300(3R) G = 1500-1700(4R) J = 1900-2100(5R) | Fuel Designation S = Natural Gas - CSA - United States & Canada (North American) |
| | | | | | 04E 45,000 [13.1] 06E 60,000 [17.6] 07E 75,000 [21.9] 09E 90,000 [26.4] 10E 105,000 [30.7] 12E 120,000 [35.2] | M = 11 x 7 [279 x 178] R = 11 x 10 [279 x 254] Y = 12 x 7 [305 x 178] Z = 12 x 11 [305 x 279] | | | |

[] Designates Metric Conversions



Downflow Models

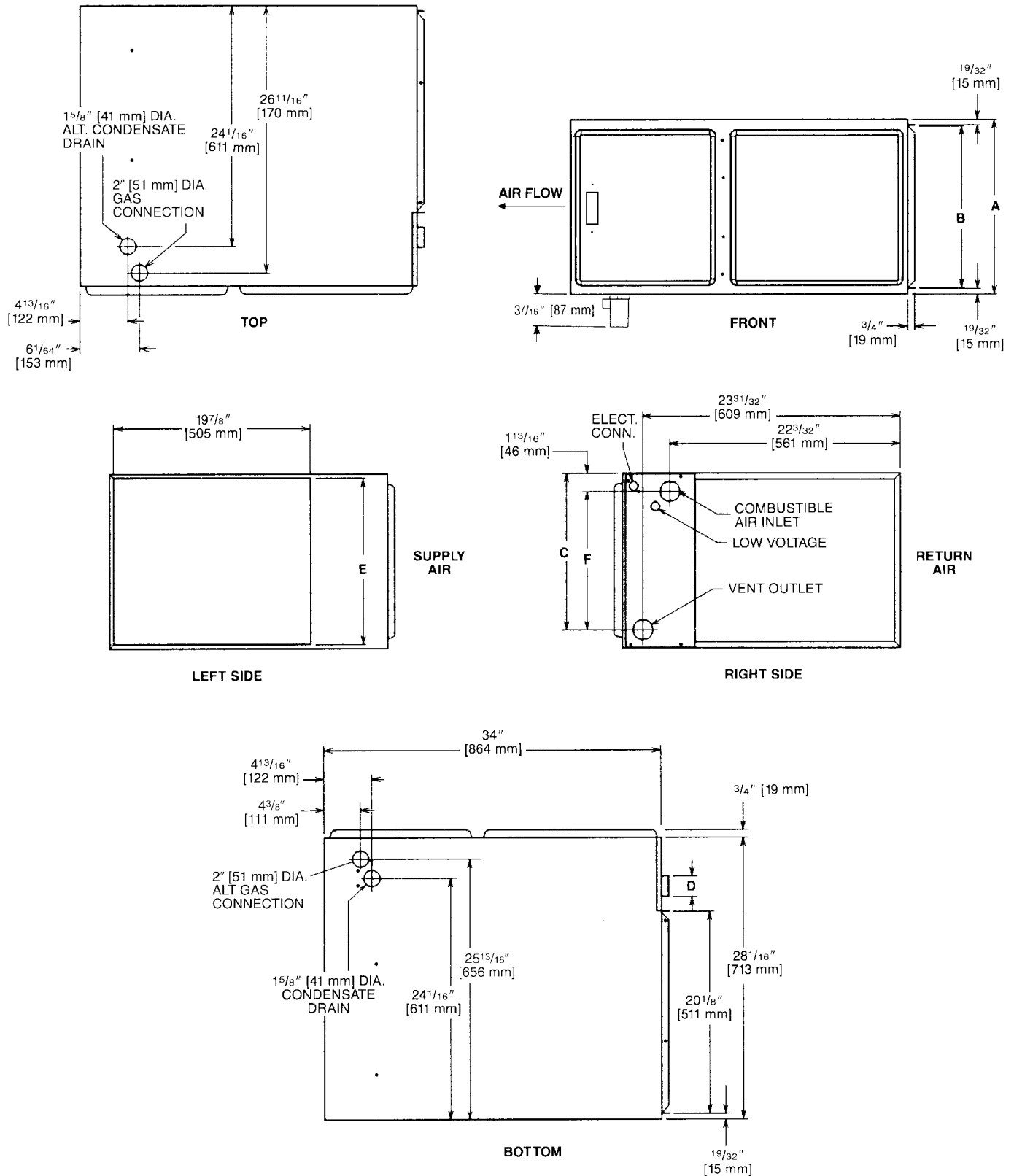


| MODEL RGTS- | A | B | C | D | E | F | LEFT SIDE | MINIMUM CLEARANCE (IN.) [mm] | | | | | SHIP WGTS. [kg] |
|----------------|--------------------------------------|----------------------------------------|---------------------------------------|--------|--------------------------------------|--------------------------------------|--------------|------------------------------|------|--------|--------|------|-----------------------|
| | | | | | | | | RIGHT SIDE | BACK | TOP | FRONT | VENT | |
| 04 | 17 ¹ / ₂ [445] | 16 ¹¹ / ₃₂ [415] | 15 ⁵ / ₈ [397] | 2 [51] | 16 ⁵ / ₈ [422] | 13 ⁷ / ₈ [352] | 0 | 0 | 0 | 1 [25] | 2 [51] | 0 | 111 [50] |
| 06 | 17 ¹ / ₂ [445] | 16 ¹¹ / ₃₂ [415] | 15 ⁵ / ₈ [397] | 2 [51] | 16 ⁵ / ₈ [422] | 13 ⁷ / ₈ [352] | 0 | 0 | 0 | 1 [25] | 2 [51] | 0 | 117 [53] |
| 07EM | 17 ¹ / ₂ [445] | 16 ¹¹ / ₃₂ [415] | 15 ⁵ / ₈ [397] | 2 [51] | 16 ⁵ / ₈ [422] | 13 ⁷ / ₈ [352] | 0 | 0 | 0 | 1 [25] | 2 [51] | 0 | 123 [56] |
| 07EY | 21 [533] | 19 ²⁷ / ₃₂ [504] | 19 ³ / ₁₆ [486] | 2 [51] | 20 ¹ / ₈ [511] | 17 ³ / ₈ [441] | 0 | 0 | 0 | 1 [25] | 2 [51] | 0 | 123 [56] |
| 09 | 21 [533] | 19 ²⁷ / ₃₂ [504] | 19 ³ / ₁₆ [486] | 2 [51] | 20 ¹ / ₈ [511] | 17 ³ / ₈ [441] | 0 | 0 | 0 | 1 [25] | 2 [51] | 0 | 148 [67] |
| 10 | 21 [533] | 19 ²⁷ / ₃₂ [504] | 19 ³ / ₁₆ [486] | 2 [51] | 20 ¹ / ₈ [511] | 17 ³ / ₈ [441] | 0 | 0 | 0 | 1 [25] | 2 [51] | 0 | 152 [69] |
| 12 | 24 ¹ / ₂ [622] | 23 ¹¹ / ₃₂ [593] | 22 ⁵ / ₈ [575] | 2 [51] | 23 ⁵ / ₈ [600] | 20 ⁷ / ₈ [530] | 0 | 0 | 0 | 1 [25] | 2 [51] | 0 | 160 [73] |

IMPORTANT NOTE: Horizontal furnace maybe installed for horizontal left hand air supply **ONLY**. The condensate trap provided for horizontal application must be installed in the field beneath the unit as directed in the furnace Installation & Operating Instructions.

[] Designates Metric Conversions

Horizontal Models



IMPORTANT NOTE: Horizontal furnace may be installed for horizontal left hand air supply **ONLY**. The condensate trap provided for horizontal application must be installed in the field beneath the unit as directed in the furnace Installation & Operating Instructions.

[] Designates Metric Conversions

Blower Performance Data—RGTS Models

| MODEL RGTS- | BLOWER SIZE IN. [mm] | MOTOR H.P. [W] | BLOWER SPEED | CFM [L/s] AIR DELIVERY 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] |
| 04EMAES | 11 x 7 [279 x 178] | 1/2 [373] | LOW | 820 [387] | 790 [373] | 760 [359] | 725 [342] | 690 [326] | 650 [306] | 610 [288] |
| | | | MED-LO | 930 [439] | 890 [420] | 850 [401] | 815 [384] | 785 [370] | 750 [354] | 720 [340] |
| | | | MED-HI | 1150 [543] | 1120 [528] | 1090 [514] | 1045 [493] | 1002 [473] | 950 [448] | 900 [425] |
| | | | HIGH | 1414 [667] | 1365 [644] | 1320 [622] | 1270 [599] | 1220 [576] | 1165 [550] | 1115 [526] |
| 06EMAES | 11 x 7 [279 x 178] | 1/2 [373] | LOW | 910 [429] | 885 [418] | 860 [406] | 815 [384] | 770 [363] | 725 [342] | 680 [321] |
| | | | MED | 1115 [526] | 1080 [510] | 1045 [493] | 1005 [474] | 965 [455] | 920 [434] | 875 [413] |
| | | | HIGH | 1365 [644] | 1315 [620] | 1270 [600] | 1225 [578] | 1180 [557] | 1125 [491] | 1070 [505] |
| | | | LOW | 890 [420] | 860 [406] | 835 [394] | 790 [373] | 750 [354] | 705 [332] | 660 [311] |
| 07EMAES | 11 x 7 [279 x 178] | 1/2 [373] | MED | 1100 [519] | 1060 [500] | 1025 [484] | 980 [462] | 940 [443] | 890 [420] | 845 [399] |
| | | | HIGH | 1340 [632] | 1295 [611] | 1250 [590] | 1200 [566] | 1150 [543] | 1090 [514] | 1025 [484] |
| | | | LOW | 1405 [668] | 1375 [649] | 1350 [637] | 1310 [618] | 1270 [599] | 1235 [583] | 1195 [564] |
| | | | MED | 1595 [753] | 1560 [736] | 1525 [720] | 1480 [698] | 1440 [679] | 1380 [651] | 1325 [625] |
| 07EYBGS | 12 x 7 [305 x 178] | 3/4 [559] | HIGH | 1835 [866] | 1780 [840] | 1730 [816] | 1675 [791] | 1625 [767] | 1555 [734] | 1480 [698] |
| | | | LOW | 1155 [545] | 1125 [531] | 1100 [519] | 1080 [510] | 1060 [500] | 1000 [472] | 940 [443] |
| | | | MED | 1420 [670] | 1400 [661] | 1380 [651] | 1365 [644] | 1350 [637] | 1260 [594] | 1175 [554] |
| | | | HIGH | 1605 [757] | 1575 [743] | 1550 [732] | 1560 [736] | 1570 [740] | 1480 [698] | 1395 [656] |
| 09EZAGS | 12 x 11 [305 x 279] | 1/2 [373] | LOW | 1420 [670] | 1400 [661] | 1380 [651] | 1365 [644] | 1350 [637] | 1260 [594] | 1175 [554] |
| | | | MED | 1605 [757] | 1575 [743] | 1550 [732] | 1560 [736] | 1570 [740] | 1480 [698] | 1395 [656] |
| | | | HIGH | 2005 [946] | 1965 [927] | 1930 [910] | 1890 [892] | 1850 [873] | 1765 [833] | 1680 [793] |
| | | | LOW | 1460 [689] | 1425 [672] | 1390 [656] | 1375 [649] | 1360 [642] | 1280 [604] | 1200 [566] |
| 09EZAJS | 12 x 11 [305 x 279] | 3/4 [559] | MED | 1680 [793] | 1645 [776] | 1615 [762] | 1585 [748] | 1560 [736] | 1490 [703] | 1420 [670] |
| | | | HIGH | 2055 [970] | 2000 [944] | 1940 [915] | 1880 [887] | 1820 [859] | 1745 [823] | 1675 [790] |
| | | | LOW | 1590 [750] | 1565 [738] | 1540 [727] | 1505 [710] | 1475 [696] | 1425 [672] | 1375 [649] |
| | | | MED | 1840 [868] | 1820 [860] | 1800 [850] | 1750 [826] | 1700 [802] | 1645 [776] | 1590 [750] |
| 12ERAJS | 11 x 10 [279 x 245] | 3/4 [559] | HIGH | 2315 [1093] | 2250 [1062] | 2185 [1031] | 2110 [996] | 2040 [963] | 1965 [927] | 1890 [892] |

NOTE: Recommended blower speeds are in bold.

NOTE: CFM values represent furnace-only airflow ratings.

[] Designates Metric Conversions

VENT TERMINATION KITS CONCENTRIC: HORIZONTAL/VERTICAL =

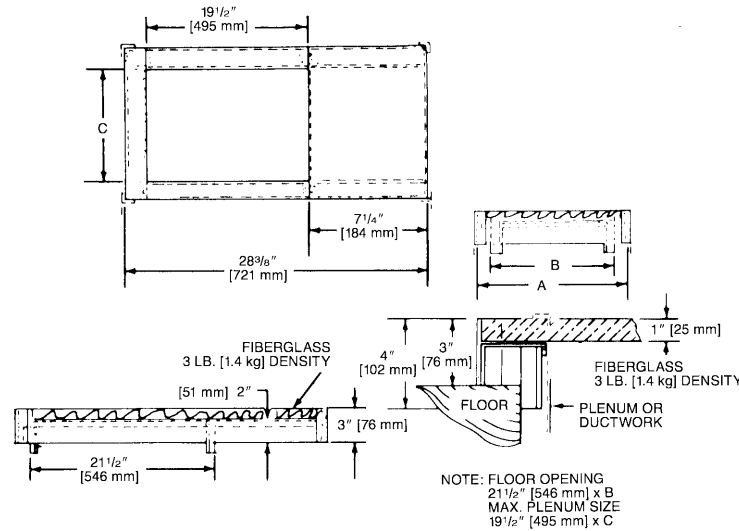
- RXGY-E03A** (US & Canadian Installations)
- HORIZONTAL TWO PIPE:** RXGY-D02, RXGY-D03, RXGY-D04 (US Installations)
- RXGY-D02A, RXGY-D03A, RXGY-D04A** (Canadian Installations)
- RXGY-G02** (US Only)
- CONDENSATE PUMP KIT:** RXGY-B01
- NEUTRALIZER KIT:** RXGY-A01
- FOSSIL FUEL KIT:** RXPF-F01, RXPF-F02 (TVA)

PLENUM DATA FOR "A" COILS

Plenum adapters are required in some applications when plenum and furnace size do not match.

| FURNACE WIDTH IN. [mm] | PLENUM WIDTH IN. [mm] | PLENUM ADAPTER DOWNFLOW | COIL PLENUM |
|------------------------|-----------------------|-------------------------|-------------|
| 17 1/2 [445] | 16 1/4 [413] | RXAA-C186 | RXAL-B16BU |
| 17 1/2 [445] | 20 1/4 [514] | RXAA-C173 | RXAL-B20BU |
| 17 1/2 [445] | 21 5/8 [549] | RXAA-C187 | RXAL-B21BU |
| 17 1/2 [445] | 25 1/4 [641] | RXAA-C174 | RXAL-B25BU |
| 21 [533] | 25 1/4 [641] | RXAA-C175 | RXAL-B25BU |
| 21 [533] | 22 1/4 [565] | RXAA-C176 | RXAL-B22BU |
| 21 [533] | 21 5/8 [549] | RXAA-C188 | RXAL-B21BU |
| 24 1/2 [622] | 25 1/4 [641] | RXAA-C177 | RXAL-B25BU |
| 24 1/2 [622] | 21 5/8 [549] | RXAA-C187 | RXAL-B21BU |

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



EXTERNAL TOP MOUNT FILTER RACK: RXGF-CC

INTERNAL FILTER RACK FOR AIR RETURN DUCT: RXGF-DB*

Each order contains (1) one box of 10 filter racks supplied without filters.

*Filters available through PROSTOCK®.

| FILTER RACK FILTER SIZES® INCHES [mm] | |
|---------------------------------------|-------------------------|
| MODEL RGTS- | RXGF-CC |
| 04 | (2) 12 x 20 [305 x 508] |
| 06 | (2) 12 x 20 [305 x 508] |
| 07 | (2) 12 x 20 [305 x 508] |
| 09 | (2) 12 x 20 [305 x 508] |
| 10 | (2) 12 x 20 [305 x 508] |
| 12 | (2) 14 x 20 [305 x 508] |

*Filter racks are shipped without filters.

RXGP-F03

TWINNING KIT—is for use with Rheem Value Series Gas Furnaces for parallel operation requirements.

FOR HIGH ALTITUDES:

| *HIGH ALTITUDE KIT: |
|---------------------|
| F04-105 KBTU/H |
| F06-45/60/90 KBTU/H |
| F05-120 KBTU/H |
| F07-75 KBTU/H |

*For installations over 5000 ft.

OPTION CODE FOR HIGH ALTITUDE: U.S. & Canada – 278

NOTE: High altitude kits and options do **NOT** include additional burner orifices. If a burner orifice change is necessary, they must be ordered through PROSTOCK®. See Installation Instructions for more information.

Option – 278 furnaces are shipped with #51 DMS orifices installed. This is one drill size smaller than standard furnaces to account for expected average elevations and heating values typically seen in these areas.

CAUTION: Always follow National Fuel Gas Code (NFGC) guidelines when converting furnaces for high altitudes.

For all installations above 2000 ft. (including all option – 278 models), the burner orifice size needs to be recalculated and verified. A burner orifice change may still be required. See Installation Instructions for more information.

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.

[] Designates Metric Conversions

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.

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 (Registration Required).....Ten (10) Years
Heat ExchangerTwenty (20) 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 04/12 QG FORM NO. G11-535