



**80LJ SERIES**  
**Models with Input Rates from**  
**50,000 to 150,000 BTU/HR**  
**[15 to 44 kW]**

## 80 PLUS A.F.U.E.† DOWNFLOW GAS FURNACES

- The Rheem Value Series line of downflow gas furnaces is designed for installation in closets, alcoves, utility rooms, or attics.
- The design is certified by the CSA.

### Features

- Patented heat exchanger, constructed of stainless and aluminized steel for the maximum in corrosion resistance.
- Textured galvanized steel cabinet with painted access doors.
- Low profile "34 inch" [864 mm] design is light and easy to handle, and leaves room for optional equipment.
- Left or right side gas and electric inlet connections.
- Features hot surface ignition equipped with remote sense, and an integrated board with electronic air cleaner hookups.
- A slow-open gas valve and a specially designed draft inducer motor.
- Grab-holes in doors to aid in easy door removal and replacement.
- Every Rheem Value Series gas furnace is thoroughly checked by a quality assurance team and tested before shipping.

A variety of cooling coils and plenums designed to use with Rheem Value Series gas furnaces are available as optional accessories.

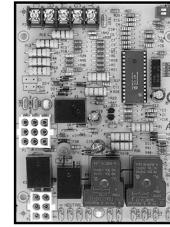
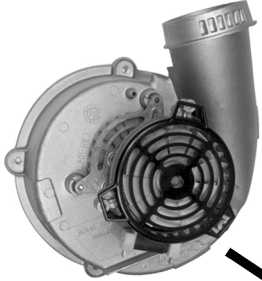
†A.F.U.E. (Annual Fuel Utilization Efficiency) calculated in accordance with Department of Energy test procedures.



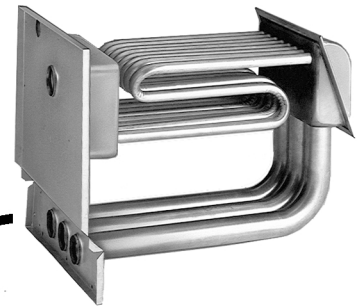
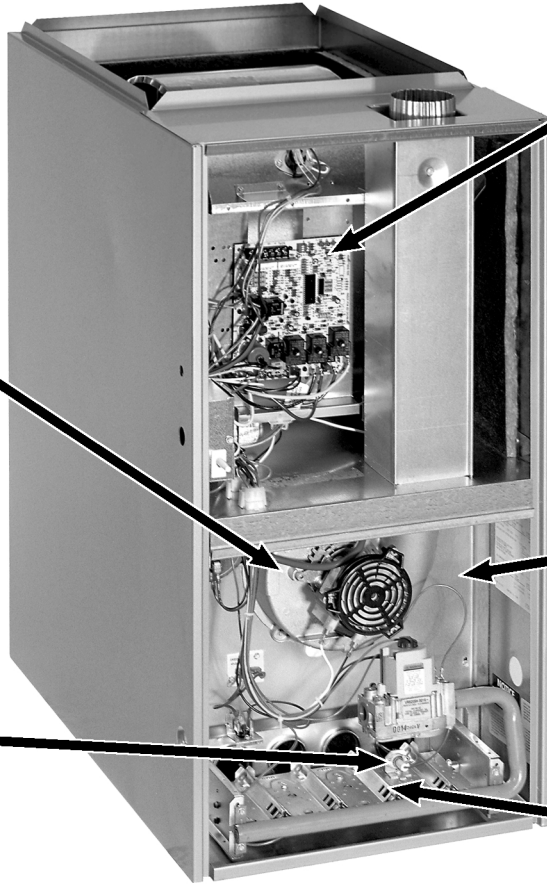


# RHEEM 80 PLUS DOWNFLOW GAS FURNACES

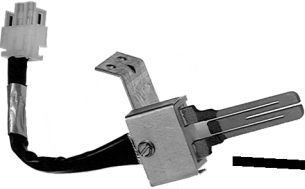
Draft Inducer Motor



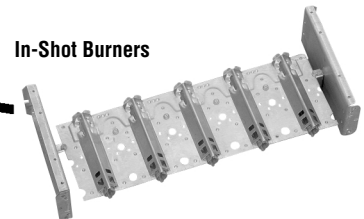
Integrated  
Furnace  
Control



Patented Heat Exchanger



Hot Surface Ignitor  
with Remote Sense



In-Shot Burners

## STANDARD EQUIPMENT

Completely assembled and wired; induced draft; pressure switch; redundant main gas control; blower compartment door safety switch; solid state time on/time off blower control; limit control; manual shut-off valve, pressure regulator for natural and L.P. (propane) gas; transformer; direct drive multi-speed blower motor. Furnaces are equipped with cooling/heating relay and transformer (40VA) ready for air conditioning applications. (Please note: a thermostat is not included as standard equipment.) Control diagnostics.

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

The complete terms of limited and other warranties are available at our sales office, or through local installer.

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.

NOTE: For natural and L.P. (propane) gas models, standard hot surface ignition is 100% safety lockout type.

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

**BEFORE PURCHASING THIS APPLIANCE, READ IMPORTANT ENERGY COST AND EFFICIENCY INFORMATION AVAILABLE FROM YOUR RETAILER.**

## PHYSICAL DATA AND SPECIFICATIONS

| MODEL NUMBERS<br>80LJ SERIES                       | 80LJ05EAR01<br>80LJ05NAR01 | 80LJ07EAR01<br>80LJ07NAR01 | 80LJ07EBR01<br>80LJ07NBR01 | 80LJ10ECR01            | 80LJ10EDR01<br>80LJ10NDR01 | 80LJ12EDR01<br>80LJ12NDR01 | 80LJ15EDR01<br>80LJ15NDR01 |
|--|----------------------------|----------------------------|----------------------------|------------------------|----------------------------|----------------------------|----------------------------|
| Input-BTU/Hr [kW] ②                                | 50,000 [15]                | 75,000 [22]                | 75,000 [22]                | 100,000 [29]           | 100,000 [29]               | 125,000 [37]               | 150,000 [44]               |
| Heating Capacity BTU/Hr [kW] ①                     | 41,000 [12]                | 60,000 [18]                | 60,000 [18]                | 80,000 [23]            | 80,000 [23]                | 99,000 [29]                | 120,000 [35]               |
| High Altitude Input [kW]                           | 45,000 [13]                | 67,500 [20]                | 67,500 [20]                | 90,000 [26]            | 90,000 [26]                | 112,500 [33]               | 135,000 [40]               |
| High Altitude Output Capacity [kW]                 | 36,500 [11]                | 53,500 [16]                | 54,000 [16]                | 72,500 [21]            | 72,500 [21]                | 89,000 [26]                | 107,500 [31]               |
| Heat Ext. Static Pressure [kPa]                    | .10 [.025]                 | .12 [.029]                 | .12 [.029]                 | .15 [.037]             | .15 [.037]                 | .20 [.05]                  | .20 [.05]                  |
| Blower (D x W) [mm]                                | 11 x 6<br>[279 x 152]      | 11 x 6<br>[279 x 152]      | 11 x 7<br>[279 x 178]      | 11 x 10<br>[279 x 254] | 11 x 10<br>[279 x 254]     | 11 x 10<br>[279 x 254]     | 11 x 10<br>[279 x 254]     |
| Motor H.P.–Speed–PSC Type [W]                      | 1/2-4-PSC<br>[373]         | 1/2-3-PSC<br>[373]         | 1/2-3-PSC<br>[373]         | 1/2-3-PSC<br>[373]     | 3/4-3-PSC<br>[560]         | 3/4-3-PSC<br>[560]         | 3/4-3-PSC<br>[560]         |
| Motor Full Load Amps                               | 6.8                        | 5.8                        | 7.9                        | 7.9                    | 9.5                        | 9.5                        | 9.5                        |
| Heating Speed                                      | Med-Low                    | Med                        | Med                        | Med                    | Low                        | Low                        | Low                        |
| Cooling Speed                                      | High                       | High                       | High                       | High                   | Med                        | Med                        | Med                        |
| Cooling CFM @ .5" E.S.P. (Nominal) [L/s]           | 1200<br>[566]              | 1200<br>[566]              | 1600<br>[755]              | 1970<br>[930]          | 2060<br>[922]              | 2185<br>[1031]             | 2145<br>[1012]             |
| Max. E.S.P. (In. W.C.) [kPa]                       | 0.5 [.12]                  | 0.5 [.12]                  | 0.5 [.12]                  | 0.5 [.12]              | 0.5 [.12]                  | 0.5 [.12]                  | 0.5 [.12]                  |
| Temperature Rise Range °F [°C]                     | 25-55<br>[13.9-30.6]       | 40-70<br>[22.2-38.9]       | 25-55<br>[13.9-30.6]       | 40-70<br>[22.2-38.9]   | 40-70<br>[22.2-38.9]       | 40-70<br>[22.2-38.9]       | 50-80<br>[27.8-44.4]       |
| Max. Outlet Air Temp. °F [°C]                      | 155<br>[68.3]              | 165<br>[73.8]              | 155<br>[68.3]              | 190<br>[87.7]          | 170<br>[76.6]              | 180<br>[82.2]              | 190<br>[87.7]              |
| Approx. Shipping Weight (Lbs.) [kg]                | 85<br>[39]                 | 105<br>[48]                | 105<br>[48]                | 120<br>[54]            | 120<br>[54]                | 140<br>[63]                | 150<br>[68]                |
| AFUE–H.S.I. Models                                 | 80.0%                      | 80.0%                      | 80.0%                      | 80.0%                  | 80.0%                      | 80.0%                      | 80.0%                      |
| California Seasonal Efficiency–H.S.I./Nox Models ① | 75.9/76.2                  | 74.4/74.9                  | 75.1/75.5                  | 74.7/74.7              | 73.9/74.5                  | 75.2/75.3                  | 76.0/75.9                  |

NOTES: All models are 115V, 60HZ, 1 Ph. Gas connection size for all models is 1/2" [12 mm] N.P.T.

① In accordance with D.O.E. test procedures.

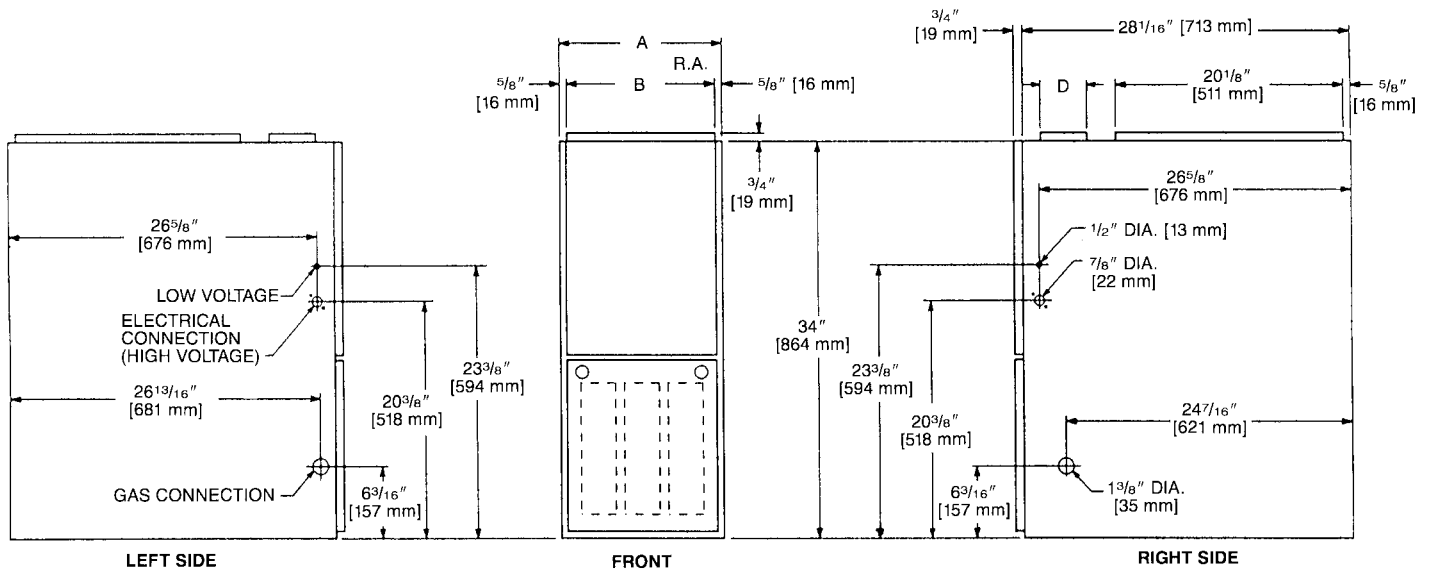
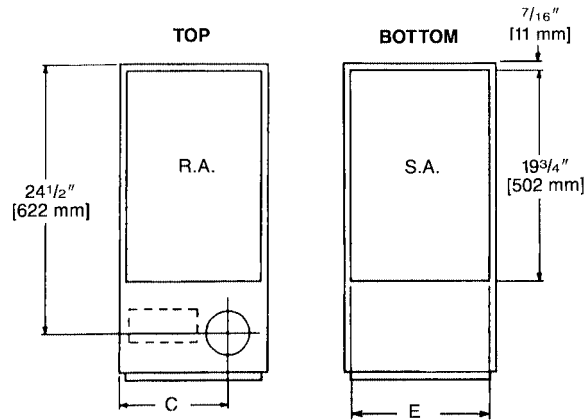
② See Conversion Kit Index Form for high altitude derate.

## MODEL IDENTIFICATION—DOWNFLOW MODELS

| <b>80</b>                  | <b>LJ</b>         | <b>05</b>   | — | <b>E</b>   | <b>A</b>  | <b>R</b>                             | <b>01</b>          |
|----------------------------|-------------------|---|---|--|---|--------------------------------------|--------------------|
| Efficiency<br>80 = 80 Plus | Model Designation | Heating Input<br>BTU/HR [kW]<br>05 = 50,000 [15]<br>07 = 75,000 [22]<br>10 = 100,000 [29]<br>12 = 125,000 [37]<br>15 = 150,000 [44] |   | Ignition<br>E = Electric Ignition<br>N = Electric Ignition NOx | Variations<br>Blower Designation [mm]<br>Motor H.P.<br>A = Standard Cabinet<br>11 x 6 [279 x 152]<br>1/2 H.P. – 4 Speed<br>B = Standard Cabinet<br>11 x 7 [279 x 178]<br>1/2 H.P. – 3 Speed<br>C = Standard Cabinet<br>11 x 10 [279 x 254]<br>1/2 H.P. – 3 Speed<br>D = Standard Cabinet<br>11 x 10 [279 x 254]<br>3/4 H.P. – 3 Speed | Fuel Code<br>R = 80 Plus Natural Gas | Rheem Value Series |

[ ] Designates Metric Conversions

# DOWNFLOW DIMENSIONS



## DIMENSIONS AND CLEARANCE TO COMBUSTIBLE MATERIAL (INCHES) [mm]

| MODEL<br>80LJ | A            | B                                      | C                                    | D | E                                    | REDUCED CLEARANCE (IN.) [mm] |               |      |        |        |           |                            |
|---------------|--------------|--|--------------------------------------|---|--------------------------------------|------------------------------|---------------|------|--------|--------|-----------|----------------------------|
|               |              |  |                                      |   |                                      | LEFT<br>SIDE                 | RIGHT<br>SIDE | BACK | TOP    | FRONT  | VENT      | SHIP. WGTS.<br>(LBS.) [Kg] |
| 05            | 14 [356]     | 12 <sup>27</sup> / <sub>32</sub> [326] | 10 <sup>3</sup> / <sub>8</sub> [264] | ① | 13 <sup>1</sup> / <sub>8</sub> [333] | 0                            | 4 ②           | 0    | 1 [25] | 3 [76] | 6 [152] ③ | 85 [38.6]                  |
| 07            | 17 1/2 [445] | 16 <sup>11</sup> / <sub>32</sub> [415] | 12 <sup>1</sup> / <sub>8</sub> [308] | ① | 16 <sup>5</sup> / <sub>8</sub> [422] | 0                            | 3 ②           | 0    | 1 [25] | 3 [76] | 6 [152] ③ | 105 [47.6]                 |
| 10            | 21 [533]     | 19 <sup>27</sup> / <sub>32</sub> [504] | 13 <sup>7</sup> / <sub>8</sub> [352] | ① | 20 <sup>1</sup> / <sub>8</sub> [511] | 0                            | 0             | 0    | 1 [25] | 3 [76] | 6 [152] ③ | 120 [54.4]                 |
| 12            | 24 1/2 [622] | 23 <sup>11</sup> / <sub>32</sub> [593] | 15 <sup>5</sup> / <sub>8</sub> [397] | ① | 23 <sup>5</sup> / <sub>8</sub> [600] | 0                            | 0             | 0    | 1 [25] | 3 [76] | 6 [152] ③ | 140 [63.5]                 |
| 15            | 24 1/2 [622] | 23 <sup>11</sup> / <sub>32</sub> [593] | 15 <sup>5</sup> / <sub>8</sub> [397] | ① | 23 <sup>5</sup> / <sub>8</sub> [600] | 0                            | 0             | 0    | 1 [25] | 3 [76] | 6 [152] ③ | 150 [68]                   |

NOTES: ① May require a 3" [76 mm] to 4" [102 mm] or 3" [76 mm] to 5" [127 mm] adapter.

② May be 0" [0 mm] with type B vent.

③ May be 1" [25 mm] with type B vent.

Furnaces must be vented in accordance with ANSI Z21.47-latest edition venting table guidelines and in accordance with local codes.

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# BLOWER PERFORMANCE DATA—DOWNFLOW MODELS

| MODEL NUMBER<br>80LJ SERIES | BLOWER SIZE<br>[mm]    | MOTOR H.P.<br>[W] | BLOWER SPEED       | CFM [L/s] AIR DELIVERY<br>EXTERNAL STATIC PRESSURE INCHES [kPa] WATER COLUMN |  |  |  |  |  |   |
|-----------------------------|------------------------|-------------------|--------------------|--|--|--|--|--|--|---|
|                             |                        |                   |                    | .1 [.02]   | .2 [.05]                                       | .3 [.07]                                       | .4 [.10]                                       | .5 [.12]   | .6 [.15]   | .7 [.17]  |
|                             |                        |                   |                    | 80LJ05EAR01<br>80LJ05NAR01   | 11 x 6<br>[279 x 152]                          | 1/2<br>[373]                                   | LOW<br>MED-LO<br>MED-HI<br>HIGH                | 735 [347]<br><b>1025 [484]</b><br>1185 [559]<br>1345 [635] | 715 [337]<br><b>1015 [479]</b><br>1165 [550]<br>1330 [628] | 690 [326]<br><b>995 [470]</b><br>1150 [543]<br>1310 [618] |
| 80LJ07EAR01<br>80LJ07NAR01  | 11 x 6<br>[279 x 152]  | 1/2<br>[373]      | LOW<br>MED<br>HIGH | 990 [467]<br><b>1140 [538]</b><br>1300 [614]                                 | 975 [460]<br><b>1125 [531]</b><br>1290 [609]   | 955 [451]<br><b>1105 [522]</b><br>1265 [597]   | 935 [441]<br><b>1080 [510]</b><br>1245 [588]   | 905 [427]<br><b>1050 [496]</b><br>1215 [573]               | 875 [413]<br><b>1020 [481]</b><br>1180 [557]               | 835 [394]<br><b>980 [463]</b><br>1140 [538]               |
| 80LJ07EBR01<br>80LJ07NBR01  | 11 x 7<br>[279 x 178]  | 1/2<br>[373]      | LOW<br>MED<br>HIGH | 1210 [571]<br><b>1580 [746]</b><br>1915 [904]                                | 1205 [569]<br><b>1560 [736]</b><br>1880 [887]  | 1195 [564]<br><b>1550 [732]</b><br>1825 [861]  | 1180 [557]<br><b>1530 [722]</b><br>1790 [845]  | 1165 [550]<br><b>1495 [706]</b><br>1740 [821]              | 1155 [545]<br><b>1465 [691]</b><br>1675 [791]              | 1130 [533]<br><b>1430 [675]</b><br>1600 [755]             |
| 80LJ10ECR01                 | 11 x 10<br>[279 x 254] | 1/2<br>[373]      | LOW<br>MED<br>HIGH | 1330 [628]<br><b>1690 [798]</b><br>—   | 1295 [611]<br><b>1670 [788]</b><br>2085 [984]  | 1285 [606]<br><b>1655 [781]</b><br>2055 [970]  | 1245 [588]<br><b>1615 [762]</b><br>2005 [946]  | 1225 [578]<br><b>1585 [748]</b><br>1970 [930]              | 1205 [569]<br><b>1565 [739]</b><br>1945 [918]              | 1160 [547]<br><b>1525 [720]</b><br>1880 [887]             |
| 80LJ10EDR01<br>80LJ10NDR01  | 11 x 10<br>[279 x 254] | 3/4<br>[559]      | LOW<br>MED<br>HIGH | <b>1690 [798]</b><br>—<br>—  | 2085 [984]<br><b>1670 [788]</b><br>2410 [1137] | 2055 [970]<br><b>1655 [781]</b><br>2355 [1111] | 2005 [946]<br><b>1615 [762]</b><br>2305 [1088] | 1970 [930]<br><b>1585 [748]</b><br>2240 [1057]             | 1945 [918]<br><b>1565 [739]</b><br>2165 [1022]             | 1880 [887]<br><b>1525 [720]</b><br>2100 [991]             |
| 80LJ12EDR01<br>80LJ12NDR01  | 11 x 10<br>[279 x 254] | 3/4<br>[559]      | LOW<br>MED<br>HIGH | —<br>—<br>—  | <b>1690 [798]</b><br>2090 [986]<br>2395 [1130] | <b>1660 [783]</b><br>2035 [960]<br>2335 [1102] | <b>1635 [772]</b><br>1985 [937]<br>2260 [1067] | <b>1580 [746]</b><br>1930 [911]<br>2185 [1031]             | <b>1535 [724]</b><br>1850 [873]<br>2080 [982]              | <b>1480 [698]</b><br>1785 [842]<br>1965 [927]             |
| 80LJ15EDR01<br>80LJ15NDR01  | 11 x 10<br>[279 x 254] | 3/4<br>[559]      | LOW<br>MED<br>HIGH | <b>1675 [791]</b><br>2105 [993]<br>—   | <b>1650 [779]</b><br>2075 [979]<br>—           | <b>1620 [765]</b><br>2035 [960]<br>—           | <b>1570 [741]</b><br>1990 [939]<br>—           | <b>1545 [729]</b><br>1955 [923]<br>—                       | <b>1485 [701]</b><br>1900 [897]<br>—                       | <b>1425 [673]</b><br>1815 [857]<br>—                      |

NOTES: Recommended blower speeds are in bold.  
See Form Number C11-206 for MultiFlex® coil data.

[ ] Designates Metric Conversions

## GENERAL TERMS OF LIMITED WARRANTY

ICECO<sup>SM</sup> 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.

Gas Heat Exchanger Limited Warranty .....Twenty (20) Years  
Any Other Part .....Five (5) Years

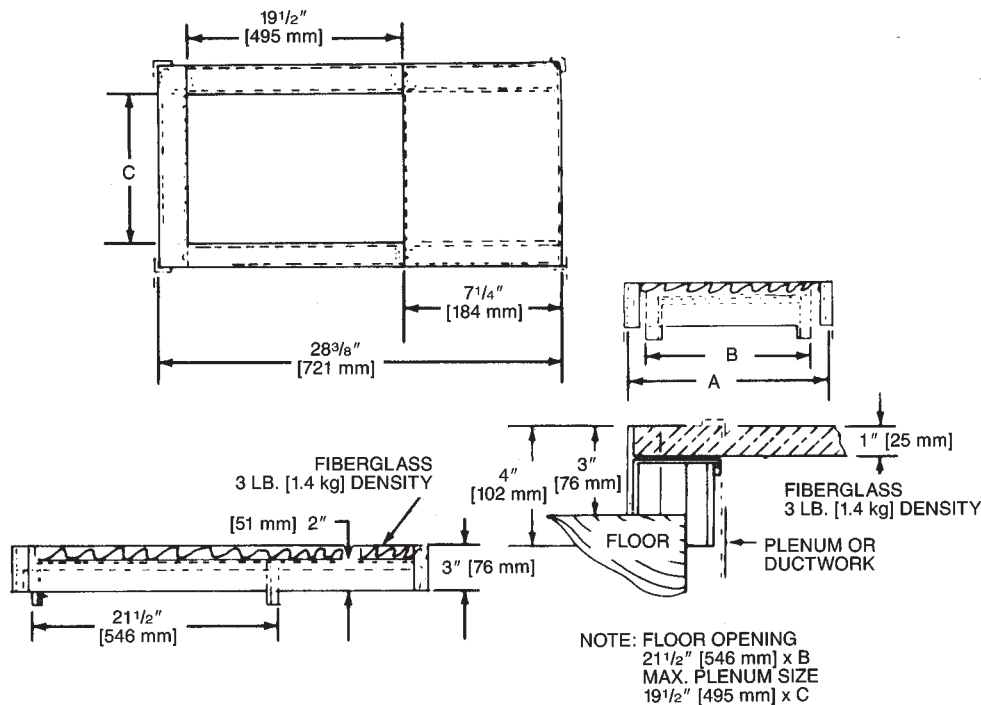
For Complete Details of the Limited Warranty, Including Applicable Terms and Conditions, See Your Local Installer or visit [www.ICECOhvac.com](http://www.ICECOhvac.com).

# ACCESSORIES—DOWNFLOW

**DOWNFLOW WARNING:** Unit design is certified for installation on non-combustible floor. A special factory supplied combustible floor sub-base is required when installing on a combustible floor. Failure to install the sub-base may result in fire, property damage and personal injury.

## COMBUSTIBLE FLOOR BASE DIMENSIONS

| COMBUSTIBLE FLOOR BASE | USE WITH FURNACE MODELS | A IN. [mm]                           | B IN. [mm]                           | C IN. [mm]                           |
|------------------------|-------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| RXGC-B14               | 80LJ05                  | 14 <sup>1</sup> / <sub>2</sub> [368] | 13 <sup>1</sup> / <sub>4</sub> [337] | 11 <sup>1</sup> / <sub>4</sub> [286] |
| RXGC-B17               | 80LJ07                  | 18 [457]                             | 16 <sup>3</sup> / <sub>4</sub> [425] | 14 <sup>3</sup> / <sub>4</sub> [451] |
| RXGC-B21               | 80LJ10                  | 21 <sup>1</sup> / <sub>2</sub> [546] | 20 <sup>1</sup> / <sub>4</sub> [514] | 18 <sup>1</sup> / <sub>4</sub> [464] |
| RXGC-B24               | 80LJ12/80LJ15           | 25 [635]                             | 23 <sup>3</sup> / <sub>4</sub> [603] | 21 <sup>3</sup> / <sub>4</sub> [552] |



### RXPF-F01

FOSSIL FUEL KIT—Standard.

### RXPF-F02

FOSSIL FUEL KIT—Meets TVA specifications.

### RXGF-CC

FILTER RACK—Downflow top return mount.

**NOTE:** Filter racks are shipped without filters.

Suitable for 1" [25.4 mm] throw away filters.

### RXGF-DB\*

FILTER RACK—Internal filter rack for top return.

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

\*Filters available through PROSTOCK®.

## FOR HIGH ALTITUDES:

**OPTION CODE FOR HIGH ALTITUDE:** US & Canada – None required for these models.

**HIGH ALTITUDE CONVERSION KITS:** US & Canada – None required for these models.

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

High altitude option codes are not required for these models. However, the burner orifice size needs to be recalculated and verified at elevations above 2000 ft. 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

# NOTES

**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.**

**RHEEM  
AIR CONDITIONING  
DIVISION**

5600 Old Greenwood Road, Fort Smith, Arkansas 72908



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