



80 PLUS A.F.U.E.[†] DOWNFLOW GAS FURNACES



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

- The WeatherKing® 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 WeatherKing gas furnace is thoroughly checked by a quality assurance team and tested before shipping.

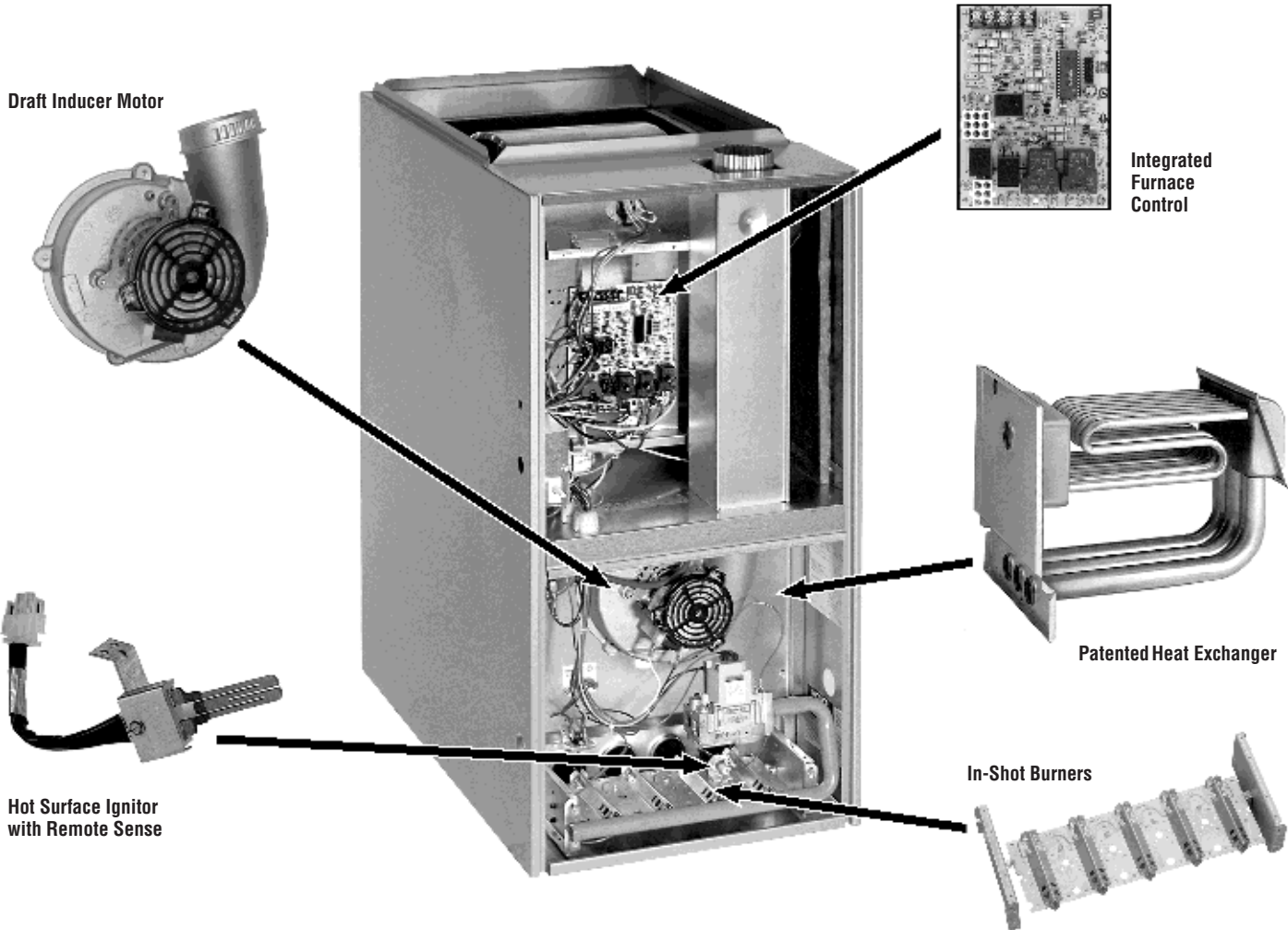
A variety of cooling coils and plenums designed to use with WeatherKing gas furnaces are available as optional accessories.

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





WEATHERKING 80 PLUS DOWNFLOW GAS FURNACES



Draft Inducer Motor

Integrated
Furnace
Control

Patented Heat Exchanger

In-Shot Burners

Hot Surface Ignitor
with Remote Sense

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 80LJ SERIES	80LJ05EAR01 80LJ05NAR01	80LJ07EBR01 80LJ07NBR01	80LJ10ECR01 80LJ10NCR01	80LJ12EDR01 80LJ12NDR01	80LJ15EDR01 80LJ15NDR01
Input-BTU/Hr [kW] ②	50,000 [15]	75,000 [22]	100,000 [29]	125,000 [37]	150,000 [44]
Heating Capacity BTU/Hr [kW] ①	41,000 [12]	60,000 [18]	80,000 [23]	99,000 [29]	120,000 [35]
Heat Ext. Static Pressure [kPa]	.10 [.025]	.12 [.029]	.15 [.037]	.20 [.05]	.20 [.05]
Blower (D x W) [mm]	11 x 6 [279 x 152]	11 x 7 [279 x 178]	11 x 10 [279 x 254]	11 x 10 [279 x 254]	11 x 10 [279 x 254]
Motor H.P.–Speed– PSC Type [W]	1/2-4-PSC [373]	1/2-3-PSC [373]	1/2-3-PSC [373]	3/4-3-PSC [560]	3/4-3-PSC [560]
Motor Full Load Amps	6.8	7.9	7.9	9.5	9.5
Heating Speed	Med-Low	Med	Med	Low	Low
Cooling Speed	High	High	High	Med	Med
Cooling CFM @ .5" E.S.P. (Nominal) [L/s]	1200 [566]	1600 [755]	1970 [930]	1930 [911]	1955 [923]
Max. E.S.P. (In. W.C.) [kPa]	.50 [.12]	.50 [.12]	.50 [.12]	.50 [.12]	.50 [.12]
Temperature Rise Range °F [°C]	25-55 [13.9-30.6]	25-55 [13.9-30.6]	40-70 [22.2-38.9]	40-70 [22.2-38.9]	50-80 [27.8-44.4]
Max. Outlet Air Temp. °F [°C]	155 [68.3]	155 [68.3]	190 [87.7]	180 [82.2]	190 [87.7]
Approx. Shipping Weight (Lbs.) [kg]	85 [39]	105 [48]	120 [54]	140 [63]	150 [68]
AFUE–H.S.I. Models	82.2%	81.1%	80.0%	80.0%	80.0%
California Seasonal Efficiency– H.S.I./Nox Models ①	75.9/76.2	75.1/75.5	74.7/74.7	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.

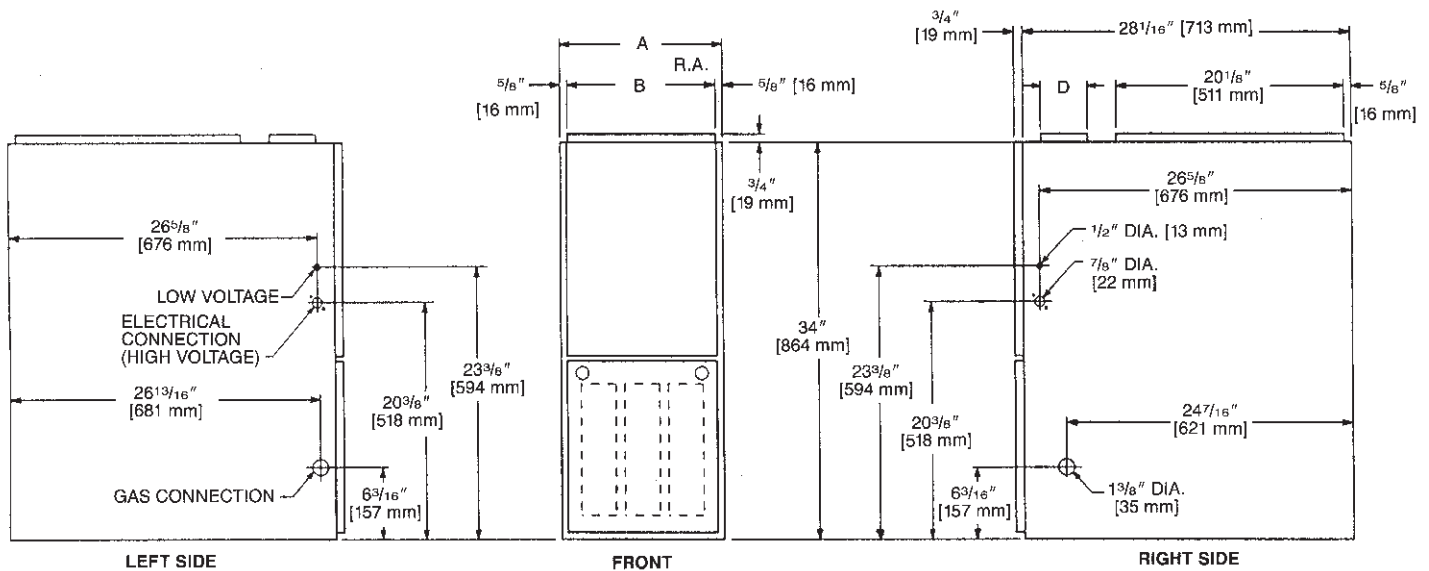
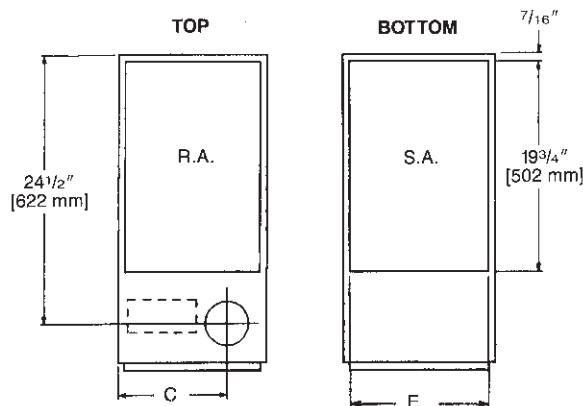
② See Conversion Kit Index Form for high altitude derate.

MODEL IDENTIFICATION—DOWNFLOW MODELS

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

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DOWNFLOW DIMENSIONS



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

MODEL 80LJ	A	B	C	D	E	REDUCED CLEARANCE (IN.) [mm]						
						LEFT SIDE	RIGHT SIDE	BACK	TOP	FRONT	VENT	SHIP. WGTS. (LBS.) [Kg]
05	14 [356]	12 ^{27/32} [326]	10 ^{3/8} [264]	Ⓛ	13 ^{1/8} [333]	0	4 ②	0	1 [25]	3 [76]	6 [152] ③	85 [38.6]
07	17 ^{1/2} [445]	16 ^{11/32} [415]	12 ^{1/8} [308]	Ⓛ	16 ^{5/8} [422]	0	3 ②	0	1 [25]	3 [76]	6 [152] ③	105 [47.6]
10	21 [533]	19 ^{27/32} [504]	13 ^{7/8} [352]	Ⓛ	20 ^{1/8} [511]	0	0	0	1 [25]	3 [76]	6 [152] ③	120 [54.4]
12	24 ^{1/2} [622]	23 ^{11/32} [593]	15 ^{5/8} [397]	Ⓛ	23 ^{5/8} [600]	0	0	0	1 [25]	3 [76]	6 [152] ③	140 [63.5]
15	24 ^{1/2} [622]	23 ^{11/32} [593]	15 ^{5/8} [397]	Ⓛ	23 ^{5/8} [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 80LJ SERIES	BLOWER SIZE [mm]	MOTOR H.P. [W]	BLOWER SPEED	CFM [L/s] AIR DELIVERY EXTERNAL STATIC PRESSURE INCHES [kPa] WATER COLUMN						
				.1 [.02]	.2 [.05]	.3 [.07]	.4 [.10]	.5 [.12]	.6 [.15]	.7 [.17]
				05EAR01 05NAR01	11 x 6 [279 x 152]	1/2 [373]	LOW MED-LO MED-HI HIGH	735 [347] 1025 [484] 1185 [559] 1345 [635]	715 [337] 1015 [479] 1165 [550] 1330 [628]	690 [326] 995 [470] 1150 [543] 1310 [618]
07EBR01 07NBR01	11 x 7 [279 x 178]	1/2 [373]	LOW MED HIGH	1210 [571] 1580 [746] 1915 [904]	1205 [569] 1560 [736] 1880 [887]	1195 [564] 1550 [732] 1825 [861]	1180 [557] 1530 [722] 1790 [845]	1165 [550] 1495 [706] 1740 [821]	1155 [545] 1465 [691] 1675 [791]	1130 [533] 1430 [675] 1600 [755]
10ECR01 10NCR01	11 x 10 [279 x 254]	1/2 [373]	LOW MED HIGH	1330 [628] 1690 [798] —	1295 [611] 1670 [788] 2085 [984]	1285 [606] 1655 [781] 2055 [970]	1245 [588] 1615 [762] 2005 [946]	1225 [578] 1585 [748] 1970 [930]	1205 [569] 1565 [739] 1945 [918]	1160 [547] 1525 [720] 1880 [887]
12EDR01 12NDR01	11 x 10 [279 x 254]	3/4 [559]	LOW MED HIGH	— — —	1690 [798] 2090 [986] 2395 [1130]	1660 [783] 2035 [960] 2335 [1102]	1635 [772] 1985 [937] 2260 [1067]	1580 [746] 1930 [911] 2185 [1031]	1535 [724] 1850 [873] 2080 [982]	1480 [698] 1785 [842] 1965 [927]
15EDR01 15NDR01	11 x 10 [279 x 254]	3/4 [559]	LOW MED HIGH	1675 [791] 2105 [993] —	1650 [779] 2075 [979] —	1620 [765] 2035 [960] —	1570 [741] 1990 [939] —	1545 [729] 1955 [923] —	1485 [701] 1900 [897] —	1425 [673] 1815 [857] —

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GENERAL TERMS OF LIMITED WARRANTY

WeatherKing 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 WarrantyTwenty (20) Years
Any Other PartFive (5) Years

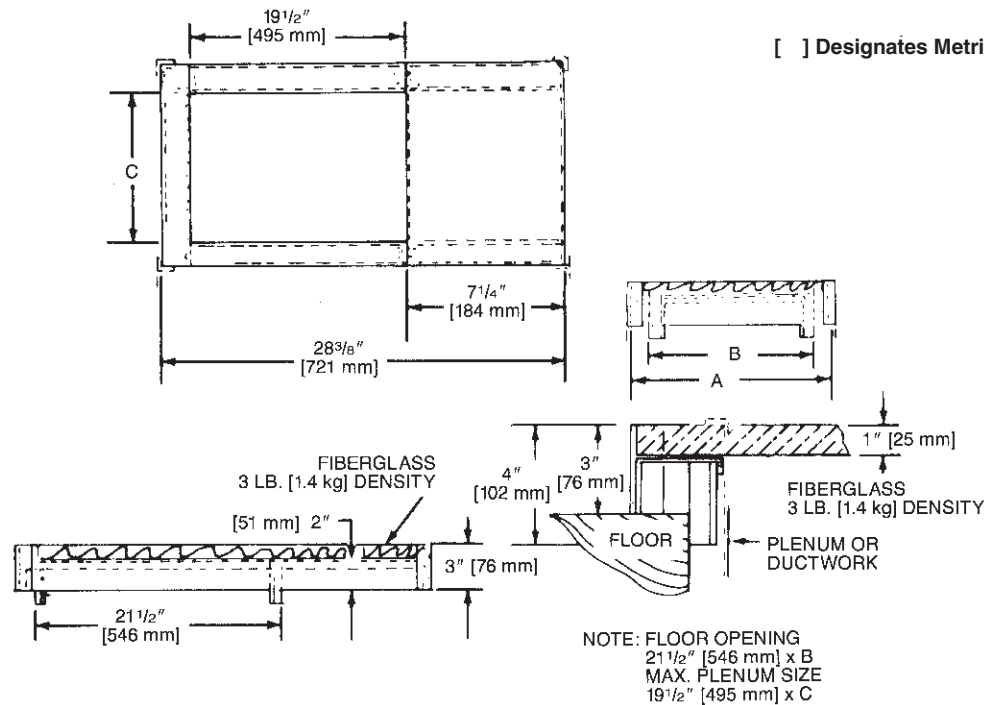
For Complete Details of the Limited Warranty, Including Applicable Terms and Conditions, See Your Local Installer or visit www.weatherking.com.

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 ¹ / ₂ [368]	13 ¹ / ₄ [337]	11 ¹ / ₄ [286]
RXGC-B17	80LJ07	18 [457]	16 ³ / ₄ [425]	14 ³ / ₄ [451]
RXGC-B21	80LJ10	21 ¹ / ₂ [546]	20 ¹ / ₄ [514]	18 ¹ / ₄ [464]
RXGC-B24	80LJ12/80LJ15	25 [635]	23 ³ / ₄ [603]	21 ³ / ₄ [552]



RXPF-F01 and F02

FOSSIL FUEL KIT—is for use with WeatherKing Heat Pumps and warm air furnaces. RXPF-F02 meets TVA requirements.

RXGP-F03

TWINNING KIT—is for use with WeatherKing Gas Furnaces for parallel operation requirements

HIGH ALTITUDE:

For installations at 8000 ft. or above, an orifice change is required. Reference Conversion Kit Index Form for orifice size requirements.

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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.

WEATHERKING L.L.C.

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