The new degree of comfort.™

# Rheem *Prestige*™ Series Communicating Two-Stage Variable Speed Downflow Gas Furnace

## **R802V Downflow Series**

80% A.F.U.E.† Input Rates 75-125 kBTU







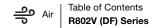


†A.F.U.E. (Annual Fuel Utilization Efficiency) calculated in accordance with Department of Energy test procedures.



- 80% residential Gas Furnace CSA certified
- Two stages of operation to save energy and maintain optimal comfort level.
- Variable speed blower motor technology provides ultimate humidity control, quieter sound levels, and year round energy savings
- EcoNet enabled HVAC product
- PlusOne<sup>™</sup> Diagnostics 7 Segment LED all units
- PlusOne™ Ignition System DSI for reliability and longevity
- Heat exchanger is removable for improved serviceability.
   Aluminized steel construction provides maximum corrosion resistance and thermal fatigue reliability.

- Low profile 34" cabinet ideal for space constrained installations
- Integrated Control board features dip switches for easy system set up
- Insulated blower compartment
- QR code for quick access to product information from your smart phone or tablet
- Compatible with single or two stage thermostats. For optimal performance a two stage thermostat is recommended.



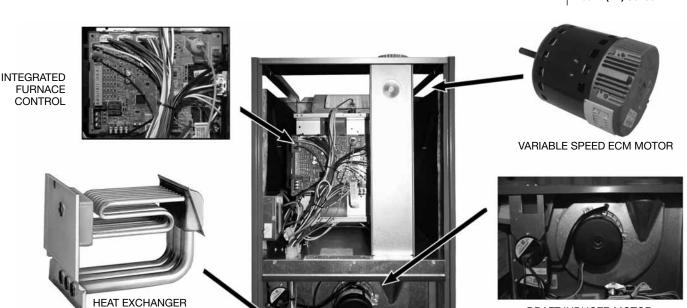
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DRAFT INDUCER MOTOR

**DIRECT SPARK IGNITOR** 

WITH REMOTE SENSE



# STANDARD EQUIPMENT

Completely assembled and wired; 2 speed induced draft blower; high and low pressure switches; 2 stage redundant main gas control; blower compartment door safety switch; solid state time on/time off blower control; limit control; transformer; ECM blower motor. Furnaces are equipped with cooling/heating relay and transformer (50VA) ready for air conditioning applications. (Please note: a thermostat is not included as standard equipment.) Flame sensor diagnostics; fused-protection (secondary), 3rd speed option for continuous fan.

IN-SHOT BURNERS

## **OPTIONAL EQUIPMENT**

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 Rheem 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 Rheem parts distributor.

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

NOTE: For natural and L.P. (propane) gas models, direct spark ignition is 100% lockout type.

# WARNING

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

## **Model Features**

- 80% residential Gas Furnace CSA certified
- Two stages of operation to save energy and maintain optimal comfort level.
- Variable speed blower motor technology provides ultimate humidity control, quieter sound levels, and year round energy savings
- EcoNet enabled HVAC product
- PlusOne<sup>™</sup> Diagnostics 7 Segment LED all units
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- QR code for quick access to product information from your smart phone or tablet
- Compatible with single or two stage thermostats. For optimal performance a two stage thermostat is recommended.

# **Physical Data and Specifications—Downflow Models**

MODEL NUMBERS R802V (DF) SERIES		R802VA075317Z*A	R802VA075421Z*A	R802VA100521Z*A	R802VA125524Z*A	
100% High Input-BTU/F	łr [kW] ②	75,000 [22]	75,000 [22]	100,000 [29]	125,000 [37]	
High Heating Capacity–E	BTU/Hr [kW] ①	60,000 [18]	60,000 [18]	80,000 [23]	100,000 [29]	
70% Low Input-BTU/Hr	[kW]	52,500 [15]	52,500 [15]	70,000 [20]	87,500 [25]	
Low Heating Capacity-B	TU/Hr [kW]	42,000 [12]	42,000 [12]	56,000 [16]	70,000 [20]	
Heating-Ext. Static Pres	sure [kPa]	.12 [.029]	.12 [.029]	.15 [.037]	.20 [.05]	
Blower (D x W) [mm]		11 x 7 [279 x 178]	11 x 10 [279 x 254]	11 x 10 [279 x 254]	11 x 10 [279 x 254]	
ECM Motor H.P. [W]		1/2 [373]	3/4 [559]	1 [746]	1 [746]	
Motor Full Load Amps.		7.7	9.6	12.8	12.8	
Unit Amps		8.7	12.0	12.0	12.0	
Maximum Overcurrent F	rotection	15	15	15	15	
Cooling CFM @ .5" [kPa] E.S.P. (Nominal) [L/s] (Range)		600-1200 [283]-[566]	1000-1600 [472]-[755]	1200-2000 [566]-[944]	1200-2000 [566]-[944]	
Max. E.S.P. (In. W.C.) [k	Pa]	0.8 [0.2]	0.8 [0.2]	0.8 [0.2]	0.8 [0.2]	
Temperature Rise	High Fire	30-60 [17-33]	25-55 [14-31]	30-60 [17-33]	35-65 [19.4-36.0]	
Range °F [°C]	Low Fire	20-50 [11-28]	20-50 [11-28]	25-55 [14-31]	30-60 [17-33]	
Max. Outlet Air Temp. °F	[°C]	165 [73.9]	165 [73.9]	165 [73.9]	185 [85]	
Approx. Shipping Weigh	ripping Weight (Lbs.) [kg] 115 [52]		115 [52]	120 [54]	140 [63]	
AFUE ①		80%	80%	80%	80%	

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

#### [ ] Designates Metric Conversions

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

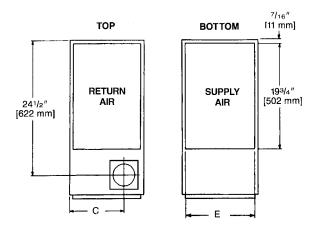
② See Conversion Kit Index Form for high altitude derate in U.S. applications.

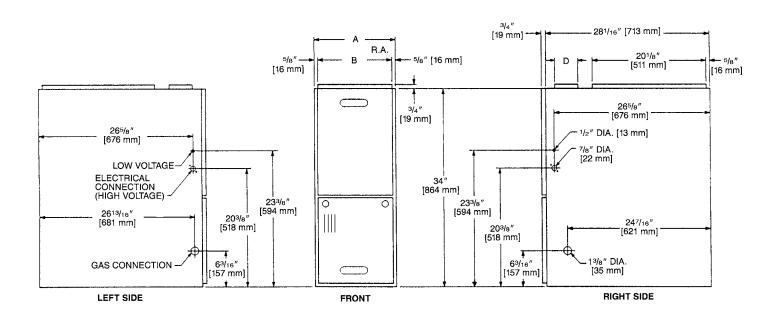
# **Model Number Identification—Downflow Models**

<u>R</u>	<u>80</u>	<u>2</u>	<u>v</u>	<u>A</u>	<u>075</u>	<u>4</u>	<u>17</u>	<u>z</u>	<u>s</u>	<u>A</u>
Rheem	80 = 80% AFUE	2 = Two Stage	V = Variable Speed ECM	Design Series A = 1st Design	Input BTU/HR [kW] 075 = 75,000 [22] 100 = 100,000 [29] 125 = 125,000 [37]	3 = Up to 3 Ton 4 = 2 <sup>1</sup> / <sub>2</sub> to 4 Ton 5 = 3 <sup>1</sup> / <sub>2</sub> to 5 Ton	Cabinet Width 17 = 17.5" 21 = 21" 24 = 24.5"	Z = Down and Zero Clearance Downflow	X = Low NOx S = Standard	Revision- Marketing (A – First Time Release)

[ ] Designates Metric Conversions

## **Downflow Dimensions**





# Dimensions and Clearance to Combustible Material (inches) [mm]

MODEL					REDUCED CLEARANCES (IN.) [mm]							
R802V- SERIES	A	В	C	D	E	LEFT SIDE	RIGHT Side	BACK	ТОР	FRONT	VENT	SHIP. WGTS. (LBS.) [kg]
075317	17 <sup>1</sup> / <sub>2</sub> [445]	16 <sup>11</sup> /32 [415]	12 <sup>1</sup> /8 [308]	1	16 <sup>5</sup> /8 [422]	0	3 ②	0	1 [25]	3 [76]	6 [152] ③	110 [49.9]
075421	21 [533]	1927/32 [504]	137/8 [352]	1	201/8 [511]	0	0	0	1 [25]	3 [76]	6 [152] ③	115 [52.2]
100	21 [533]	1927/32 [504]	137/8 [352]	1	201/8 [511]	0	0	0	1 [25]	3 [76]	6 [152] ③	120 [54.4]
125	241/2 [622]	2311/32 [593]	15 <sup>5</sup> /8 [397]	1	235/8 [600]	0	0	0	1 [25]	3 [76]	6 [152] ③	140 [63.5]

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 the National Fuel Gas Code, ANSI Z223.1 and/or Can/CGA-B149 Installation Codes and in accordance with local codes.

### [ ] Designates Metric Conversions

# **Blower Performance Data—Downflow Models**

	MODEL N	UMBER		R802VA075317ZSA	R802VA075421ZSA	R802VA100521ZSA	R802VA125524ZSA			
TARGET GAS HEATING AIRFLOW		SW15 = 0FF	SW16 = 0FF	1254	1305	1651	1998			
	HIGH	SW15 = ON	SW16 = 0FF	1054	1173	1398	1600			
	HEATING CFM	SW15 = 0FF	SW16 = ON	DO NOT USE						
		SW15 = ON	SW16 = ON	953	1001	1251	1595			
		SW13 = 0FF	SW14 = 0FF	980	1125	1300	1480			
	LOW Heating CFM	SW13 = 0N	SW14 = 0FF	850	850	1075	1250			
		SW13 = 0FF	SW14 = ON	DO NOT USE						
		SW13 = ON	SW14 = 0N	750	700	875	1100			
	HIGH Cooling CFM	HIGH	SW4 = OFF	SW5 = OFF	1200	1600	2000	2000		
			SW4 = ON	SW5 = OFF	1000	1400	1600	1600		
TARGET		SW4 = OFF	SW5 = 0N	800	1200	1400	1400			
COOLING/		SW4 = ON	SW5 = 0N	600	1000	1200	1200			
HEAT-PUMP		SW4 = OFF	SW5 = OFF	900	1200	1500	1500			
AIRFLOW	LOW COOLING CFM	SW4 = ON	SW5 = OFF	750	1050	1200	1200			
		SW4 = OFF	SW5 = 0N	600	900	1050	1050			
		SW4 = 0N	SW5 = 0N	450	750	900	900			

<sup>[ ]</sup> Designates Metric Conversions

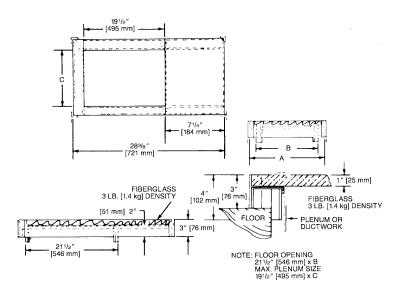
## **DOWNFLOW ACCESSORIES**

DOWNFLOW WARNING: Unit design is certified for installation on noncombustible floor. A special factory supplied combustible floor subbase 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 SIZES	A IN. [mm]	B IN. [mm]	C IN. [mm]
RXGC-B17	R802VA075317	18 [457]	163/4 [425]	143/4 [451]
RXGC-B21	R802VA075421, R802V100	211/2 [546]	201/4 [514]	18 <sup>1</sup> / <sub>4</sub> [464]
RXGC-B24	R802V125	25 [635]	233/4 [603]	213/4 [552]

#### [ ] Designates Metric Conversions



### **RXGF-CC\***

FILTER RACK—Downflow top return mount. Requires (2) 14 x 20 Filters.

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

\*Filters available through PROSTOCK ®.

## **FOR HIGH ALTITUDES:**

**HIGH ALTITUDE OPTION CODE: U.S.** 

None required for high altitudes.

**HIGH ALTITUDE CONVERSION KITS: U.S.** 

None required for high altitudes.

#### **80+ HIGH ALTITUDE INSTRUCTIONS**

Caution: Always follow National Fuel Gas Code (NFGC) 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.

## **ECONET CONTROL**

#### RECOMMENDED COMMUNICATING FURNACE CONTROL



**RETST600SYS** 

## **CONTRACTOR BENEFITS:**

- Auto/Self Configuration
- · Day-at-a-glance scheduling, with programmable fan
- Intuitive wiring connections
- · Dual fuel ready
- · Automatically optimizes airflow
- · System status & mode information
- · Complete diagnostic information on display

#### **HOMEOWNER BENEFITS:**

- · Large, easy to read icons and characters
- Auto-mode control
- · Smart recovery
- Continuous Fan Mode (5 speeds)
- Humidity Control
- Water heater, pool heater integration\* (check model compatibility)

## \*ECONET CONTROL ACCESSORIES:

Wall Plate = RCPN-AMC08 Face Plate = RETSTFPL

**IMPORTANT:** Existing Comfort Control<sup>2</sup> System Condensing Units & Heat Pumps are compatible with EcoNet when matched with a R802V Gas Furnace and with an EcoNet Translator (RETRN620CC2) installed on the Comfort Control<sup>2</sup> System control board.

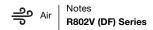
\*Available through PROSTOCK®.

# **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.

Parts	Ten (10) Years
Heat Exchanger	Limited Lifetime





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

