The new degree of comfort.™

# Rheem Prestige® Series EcoNet Enabled **Modulating Upflow Gas Furnaces**

# **R98V-Series**

98% A.F.U.E.† Input Rates from 60 to 115 kBTU [11.57 to 33.71 kW]









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





- 98% residential gas furnace CSA certified
- Upflow
- Modulating 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® Diagnostics 7-Segment LED all units
- PlusOne® Ignition System DSI for reliability and longevity
- PlusOne® Water Management System with patented Blocked Drain Sensor
- PlusOne® Energy Efficiency Industry's highest A.F.U.E. Gas Furnace family. The R98V features 98% A.F.U.E. across all model sizes
- 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

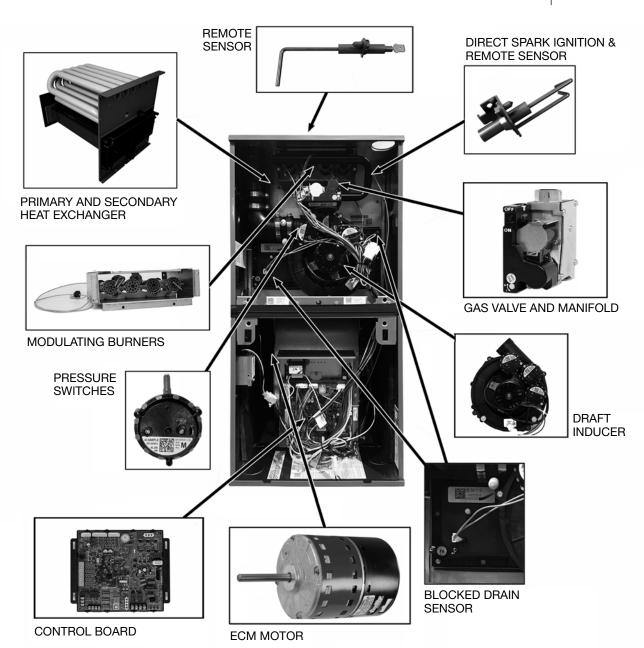
- Pre marked hoses insures proper system drainage
- Vent with 2" or 3" PVC
- Replaceable collector box
- · Hemmed edges on cabinet and doors
- · Quarter turn door fasteners for tool less access
- Integrated control boards feature dip switches for easy system set up
- Self priming condensate trap
- · Solid bottom included
- For optimal performance an EcoNet Control Center is recommended; must be paired with an EcoNet enabled heat pump or air conditioner, for a fully communicating HVAC system.
- Modulating Function: when used with an EcoNet Control Center modulating thermostat, modulation rate between 40% and 100% of total capacity.
- Two-stage Function: when used with a two-stage thermostat, furnace operates at 40% on first stage, and stages up to 65%, then 100% for second stage.
- Multistage Function: when used with a single-stage thermostat, furnace functions as a three stage furnace operating at 40%, 65% and 100% of total capacity.





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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; variable speed 3 phase induced draft motor; pressure switches; digitally controlled modulating gas valve with internal redundancy and manual shut off; blower compartment door safety switch; solid state time on/off blower control; limit controls; 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; humidifier connections; humidifier on/off delay; low CFM continuous fan option; transformer; direct drive, variable speed electrically commutated blower motor (ECM). 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 Gas Conversion Kit Index Natural to LP Gas. The L.P. Conversion kit contains components unique to Modulating furnaces, the correct kit must be used.

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

# Physical Data and Specifications—Upflow Models U.S. and Canadian Models

MODEL NUMBER	(-)98V(-)060M317U()	(-)98V(-)070M317U()	(-)98V(-)085M521U(-)	(-)98V(-)100M521U()	(-)98V(-)115M524U()
HIGH FIRE INPUT BTU/HR [kW]	56,000 [16.41]	70,000 [20.50]	84,000 [24.61]	98,000 [28.72]	112,000 [32.82]
LOW FIRE INPUT	22,400 [6.56]	28,000 [8.21]	33,600 [9.85]	39,000 [11.49]	44,800 [13.13]
HEATING CAPACITY BTU/HR [kW]	55,000 [16.12]	69,000 [20.22]	83,000 [24.32]	97,000 [28.43]	110,000 [32.24]
BLOWER (D x W) [mm]	11 x 8 [279 x 203]	11 x 8 [279 x 203]	11 x 10 [279 x 254]	11 x 10 [279 x 254]	11 x 11 [279 x 279]
MOTOR H. P. [W]-TYPE	1/2 [373] E. C. M.	1/2 [373] E. C. M.	3/4 [559] E. C. M.	3/4 [559] E. C. M.	3/4 [559] E. C. M.
MIN. CIRCUIT AMPACITY	8.00	9.00	12.00	13.00	12.00
MIN. OVERLOAD PROTECTION DEVICE	15.00	15.00	15.00	15.00	15.00
MAX. OVERLOAD PROTECTION DEVICE	15.00	15.00	20.00	20.00	20.00
MINIMUM EXT. STATIC PRESSURE IN. W.C. [kPa]	.20 [.050]	.23 [.057]	.28 [.070]	.28 [.070]	.28 [.070]
MAXIMUM EXT. STATIC PRESSURE IN. W.C. [kPa]	1.0 [0.249]	1.0 [0.249]	1.0 [0.249]	1.0 [0.249]	1.0 [0.249]
MAXIMUM HEATING CFM [L/s]	954 [450]	1133 [535]	1434 [677]	1672 [789]	1779 [840]
COOLING CFM @ .50" W.C. [.124 kPa] E.S.P. [L/s]	1050 [496]	1050 [496]	1750 [825]	1750 [825]	1750 [825]
TEMPERATURE RISE- HIGH FIRE °F [°C]	40 - 70 [22 - 39]	40 - 70 [22 - 39]	40 - 70 [22 - 39]	40 - 70 [22 - 39]	45 - 75 [25 - 41]
TEMPERATURE RISE- LOW FIRE °F [°C]	20 - 50 [11 - 28]	20 - 50 [11 - 28]	20 - 50 [11 - 28]	25 - 55 [13 - 30]	20 - 50 [11 - 28]
APPROX. SHIPPING WEIGHT (LBS) [kg]	128 [58]	132 [60]	147.5 [67]	152 [69]	165 [75]
AFUE ①	98.7%	98.3%	98.1%	98.1%	98.6%

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

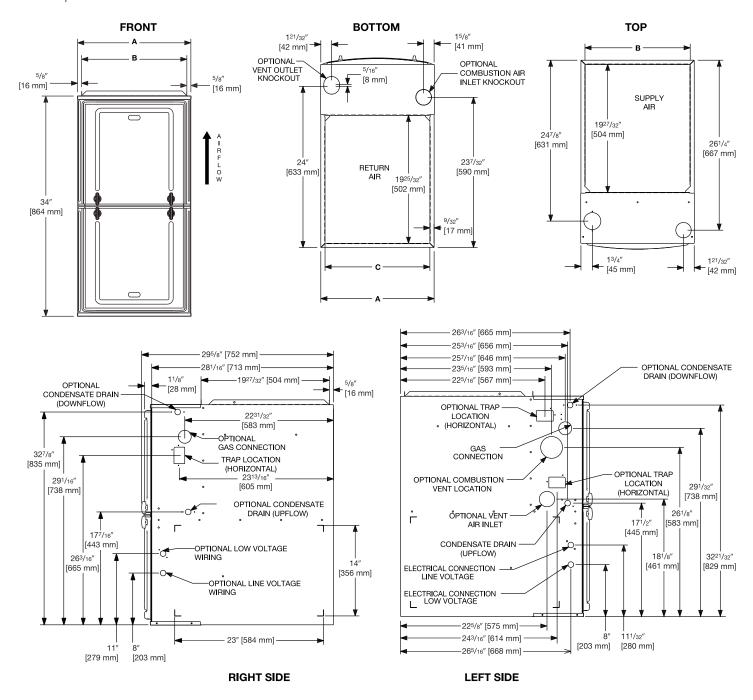
NOTE: Standard model complies with California low nox requirements.

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

<sup>\*</sup>S=Standard Models

# **Model Number Identification**

<u>R</u>	98	V	<u>A</u>	<u> </u>	M	<u>3</u>	<u>17</u>	<u>U</u>	<u>s</u>	<u>A</u>
Rheem	98% Efficient	Motor - ECM	Design Series A = 1st Design	Input <u>BTU/HR</u> 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]	Modulating	Airflow 3 - Up to 3 Tons 5 - Up to 5 Tons	Cabinet Width 17 = 17.5" 21 = 21.0" 24 = 24.5"	Configuration - Upflow	S = Standard N = NOx	Revision - Marketing (A - First Time Release) (B - First Revision)



# UNIT DIMENSIONS (CLEARANCE TO COMBUSTIBLES)

MODEL	LEFT		MINIMUM	CLEARANCE	(IN.) [mm]		SHIP	F	LANGE DIMENSION	S
R98V	SIDE	RIGHT SIDE	BACK	ТОР	FRONT	VENT	WGTS.	A	В	С
060	0	0	0	1 [25]	2 [51]	0	128 [58]	17 <sup>1</sup> /2 [445]	16 <sup>17</sup> /64 [413]	16 <sup>13</sup> /64 [412]
070	0	0	0	1 [25]	2 [51]	0	132 [60]	171/2 [445]	16 <sup>17</sup> /64 [413]	16 <sup>13</sup> / <sub>64</sub> [412]
085	0	0	0	1 [25]	2 [51]	0	147.5 [67]	21 [533]	1949/64 [502]	1945/64 [500]
100	0	0	0	1 [25]	2 [51]	0	152 [69]	21 [533]	1949/64 [502]	19 <sup>45</sup> /64 [500]
115	0	0	0	1 [25]	2 [51]	0	165 [75]	241/2 [662]	2317/64 [591]	2313/64 [589]

<sup>\*</sup>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.

	Comfort Select – CFM Options								
Model I	Number	(-)98V(-)060M317U()	(-)98V(-)070M317U()	(-)98V(-)085M521U(-)	(-)98V(-)100M521U()	(-)98V(-)115M524U()			
	LOW HEAT (40%)	428 [202]	559 [264]	579 [276]	708 [334]	778 [367]			
HEATING CFM [L/s]	MEDIUM HEAT (65%)	562 [265]	697 [329]	649 [306]	832 [393]	1035 [489]			
	HIGH HEAT (100%)	749 [353]	889 [420]	845 [399]	1005 [474]	1396 [659]			
			Efficiency Select – CFM (	Options (factory setting)					
	LOW HEAT (40%)	550 [260]	719 [339]	745 [352]	1100 [519]	1000 [472]			
HEATING	MEDIUM HEAT (65%)	690 [325]	857 [405]	845 [399]	1014 [479]	1271 [600]			
CFM [L/s]	HIGH HEAT (100%)	885 [418]	1051 [496]	985 [465]	1160 [547]	1650 [779]			
	MAX HEAT (-4°F)	954 [450]	1133 [535]	1005 [495]	1236 [583]	1779 [840]			

\*S = Standard Models
NOTES Standard model complies with California low N0x requirements.
Refer to Installation Manual for complete heating dip switch options.

	COOLING CFM									
	Model Nur	nber		(-)98V(-)060M317U()	(-)98V(-)070M317U()	(-)98V(-)085M521U(-)	(-)98V(-)100M521U()	(-)98V(-)115M524U()		
	HIGH COOLING	SW 4 = OFF	SW 5 = OFF	1050 [496]	1050 [496]	1750 [825]	1750 [825]	1750 [825]		
		SW 4 = ON	SW 5 = OFF	875 [413]	875 [413]	1400 [661]	1400 [661]	1400 [661]		
	CFM [L/s]	SW 4 = OFF	SW 5 = ON	700 [330]	700 [330]	1225 [578]	1225 [578]	1225 [578]		
TARGET COOLING/ HEAT		SW 4 = ON	SW 5 = ON	525 [248]	525 [248]	1050 [496]	1050 [496]	1050 [496]		
PUMP AIRFLOW		SW 4 = OFF	SW 5 = OFF	788 [372]	788 [372]	1313 [619]	1313 [619]	1313 [619]		
	LOW COOLING CFM [L/s]	SW 4 = ON	SW 5 = OFF	656 [310]	656 [310]	1050 [496]	1050 [496]	1050 [496]		
		SW 4 = OFF	SW 5 = ON	525 [248]	525 [248]	919 [434]	919 [434]	919 [434]		
		SW 4 = ON	SW 5 = ON	394 [185]	394 [185]	788 [372]	788 [372]	788 [372]		



#### **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)

EXTERNAL BOTTOM FILTER (UPFLOW) RACK: RXGF-CB
EXTERNAL SIDE (UPFLOW) FILTER RACK: RXGF-CD

FILTER RACK FILTER SIZES* INCHES [mm]							
MODEL	RXGF-CD (UPFLOW)						
(-)98V(-)060	16 x 24 [40 x 61]						
(-)98V(-)070	16 x 24 [40 x 61]						
(-)98V(-)085	20 x 24 [51 x 61]						
(-)98V(-)100	20 x 24 [51 x 61]						
(-)98V(-)115	24 x 24 [61 x 61]						

<sup>\*</sup>Filter racks are shipped without filters.
A suitable 1" [25.4 mm] filter may be used

#### [ ] Designates Metric Conversions

#### INDOOR COIL CASINGS

MODEL NUMBER
RXBC-D17A1
RXBC-D21A1
RXBC-D21B1
RXBC-D24A1

#### **FOR HIGH ALTITUDES:**

NOTE: Modulating furnaces require a unique 2% derate at altitudes above 2,000 feet. See Installation Instructions for details.

#### **HIGH ALTITUDE KITS**

(-)98V(-)060M317U(--) RXGY-F53 (-)98V(-)070M317U(--) RXGY-F54 (-)98V(-)085M521U(--) RXGY-F55 (-)98V(-)100M521U(--) RXGY-F56 (-)98V(-)115M524U(--) RXGY-F57 L.P. CONVERSION KIT: RXGJ-FP37

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

COMBUSTIBLE FLOOR BASE: RXGC-B17

RXGC-B21 RXGC-B24

#### **ECONET CONTROL**

#### RECOMMENDED COMMUNICATING FURNACE CONTROL



**RETST601SYS** 

The EcoNet Control Center serves as the hub of communication for a home's Heating, Cooling and Water Heating systems, and is required to operate an EcoNet Enabled Heating & Cooling system in a fully communicating mode.

#### **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)

#### WIFI KIT FOR HEATING & COOLING SYSTEMS



The WiFi kit is required to remotely operate EcoNet Enabled Heating and Cooling Systems from the EcoNet Web portal and mobile apps.

#### **REWRA630SYS**

#### \*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 R98V 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	
Conditional Unit Replacement	
(Registration Required)	Limited Lifetime



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

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