

# FUJITSU

## Gas Furnaces



*This product meets a stringent set of our internally defined sustainability standards*



### FF97MV

97% A.F.U.E.†

EcoNet® Enabled

Heating Stages: Modulating

Motor Type: Constant CFM

Input Rates: 60 to 115 kBtu [11.6 to 33.7 kW]

Configuration Options: Downflow/Horizontal

Manufactured for  
**Fujitsu General America, Inc.**  
Fairfield, NJ



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

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## Features and Benefits

- **Energy Efficiency:** ENERGY STAR® certified, featuring 97% AFUE across all model sizes
- **Diagnostics:** Industry first, 7-Segment LED Display makes service calls quick and easy
- **Ignition System:** Proven Direct Spark Ignition (DSI) for reliability and longevity
- **Water Management System:** Exclusive patented block drain sensor that automatically shuts off the furnace when the drain is blocked and alerts the contractor via diagnostic code
- **Modulating Heating Stage:** Gradual auto-adjustment from low to 100% of capacity to meet precise comfort requirements
- **Constant CFM Motor:** Truly variable speed technology allows for ultimate humidity control, quieter sounds levels and year-round energy savings
- **Quietest Operation<sup>1</sup>:** A fully insulated blower cabinet, solid bottom and truly variable speed airflow technology makes this furnace of the quietest available
- **EcoNet® Enabled Furnace:** The latest in sensor technology and the EcoNet® monitoring system provides a new level of protection, control and energy savings
- **Allows on-the-go control** and receipt of system alerts by the homeowner via the EcoNet® Smart Thermostat and EcoNet® App<sup>2</sup>

<sup>1</sup>Based on manufacturer's furnace offering, and the product's heating stages, motor type and cabinet insulation. Sound levels are also dependent on furnace location and installation.

<sup>2</sup>Wifi broadband internet connection required. Download the EcoNet® App from the App Store® or Google Play® to set up your EcoNet® Smart Thermostat. Receipt of notifications depend on home WiFi set up. Amazon, Alex and all related logos are trademarks of Amazon.com, Inc. or its affiliates.

# Gas Furnaces

<u>F</u>	<u>F</u>	<u>97</u>	<u>M</u>	<u>V</u>	<u>3</u>	<u>040</u>	<u>17</u>	<u>DH</u>	<u>S</u>	<u>G</u>	<u>A</u>	<u>A</u>	<u>P</u>
Brand	Product Category	Type	Gas Valve	Motor Type	AC Max. Capacity	Heating Input	Width	Position	NOx	Controls	Major Series	Minor Series	Option Code
F - Fujitsu	F - Furnace	97 - 97% AFUE	M - Modulating	V - ECM Variable Speed	3 - 3 Ton Drive 5 - 5 Ton Drive	060 - 60K BTUH [17.6 kW] 070 - 70K BTUH [20.5 kW] 085 - 85K BTUH [24.9 kW] 100 - 100K BTUH [29.3 kW] 115 - 115K BTUH [33.7 kW]	17 - 17.5" 21 - 21" 24 - 24.5"	DH - Downflow Horizontal	S - Standard	G - Communicating, EcoNet®	A - 1st Design Series	A - 1st Series	P - Premium Grade

[ ] Designates Metric Conversions

AVAILABLE MODELS
FF97MV306017DHSGAAP
FF97MV307017DHSGAAP
FF97MV508521DHSGAAP
FF97MV510021DHSGAAP
FF97MV511524DHSGAAP

STANDARD EQUIPMENT
Multispeed Constant CFM ECM Motor
Complete assembly and wiring
Blocked Drain Sensor
7 Segment LED & marked hoses
Primary aluminized steel heat exchanger
29-4C stainless steel secondary heat exchanger
Induced Draft Blower
Pressure switches
Redundant main gas control
Limit controls
Manual shut-off valve
100% safety lock out
Blower compartment door safety switch
Solid State Time on/off blower control
Cool fan off delay
Field Selectable Heat Fan Off Delay
Low speed continuous fan option
Single Speed Option for Heating & Cooling Applications
One-hour automatic retry
Power and self-test diagnostics
Flame sense current diagnostics
Electronic air cleaner connections
Twinning (built-in) features
Humidifier connections
Humidifier on/off delay
Transformer
Direct drive
Solid bottom

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

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

MODEL NUMBER	FF97MV306017DH	FF97MV307017DH	FF97MV508521DH	FF97MV10021DH	FF97MV511524DH
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]	96,000 [28.13]	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	10.00	10.00	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]	1109 [523]	1062 [501]	1250 [590]	1628 [769]
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]	50 - 80 [27 -44]	50 - 80 [27 -44]	40 - 70 [22 -39]
TEMPERATURE RISE- LOW FIRE °F [°C]	20 - 50 [11 - 28]	20 - 50 [11 - 28]	20 - 50 [11 - 28]	20 - 50 [11 - 28]	20 - 50 [11 - 28]
APPROX. SHIPPING WEIGHT (LBS) [kg]	128 [58]	132 [60]	147.5 [67]	152 [69]	165 [75]
AFUE ①	97.00%	97.00%	97.00%	97.00%	97.00%

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

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

\*S=Standard Models

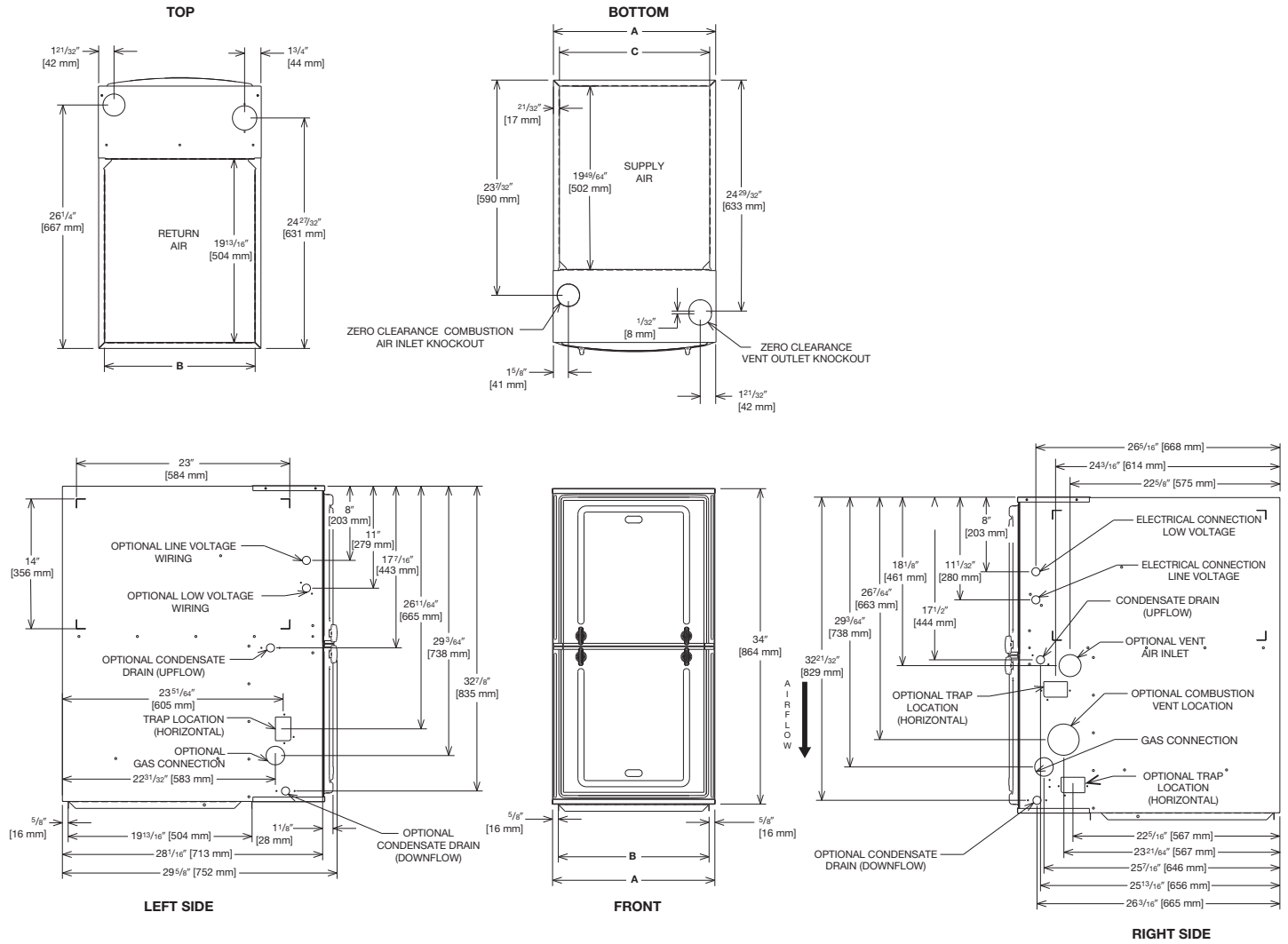
Standard model complies with California low NOx requirements.

This furnace does not meet air district requirements of 14 ng/J NOx emissions limit. This furnace is not eligible for the Clean Air Furnace Rebate Program: [www.CleanAirFurnaceRebate.com](http://www.CleanAirFurnaceRebate.com).

This furnace is to be installed for propane firing only in air districts requiring 14 ng/J NOx emission limits. Operating in natural gas mode is in violation of these Rules.

[ ] Designates Metric Conversions

## Downflow Horizontal Applications



ST-A1250-03-00

## Unit Dimensions (Clearance to Combustibles)

MODEL	LEFT SIDE	MINIMUM CLEARANCE (IN.) [mm]				
		RIGHT SIDE	BACK	TOP	FRONT	VENT
FF97MV3060	0	0	0	1 [25]	2 [51]	0
FF97MV3070	0	0	0	1 [25]	2 [51]	0
FF97MV5085	0	0	0	1 [25]	2 [51]	0
FF97MV5100	0	0	0	1 [25]	2 [51]	0
FF97MV5115	0	0	0	1 [25]	2 [51]	0

\*A service clearance of at least 24" is recommended in front of all furnaces

FLANGE DIMENSIONS		
A	B	C
17 <sup>1</sup> / <sub>2</sub> [445]	16 <sup>17</sup> / <sub>64</sub> [413]	16 <sup>13</sup> / <sub>64</sub> [412]
21 [533]	19 <sup>49</sup> / <sub>64</sub> [502]	19 <sup>45</sup> / <sub>64</sub> [500]
24 <sup>1</sup> / <sub>2</sub> [662]	23 <sup>17</sup> / <sub>64</sub> [591]	23 <sup>13</sup> / <sub>64</sub> [589]

Supply and return depicted as downflow configuration.

Flange configuration will vary depending on installation orientation.

[ ] Designates Metric Conversions

## Blower Performance Data

Comfort Select – CFM Options (factory setting)						
Model Number		FF97MV306017DH	FF97MV307017DH	FF97MV508521DH	FF97MV10021DH	FF97MV511524DH
HEATING CFM [L/s]	LOW HEAT (40%)	428 [202]	466 [220]	579 [276]	683 [322]	778 [367]
	MEDIUM HEAT (65%)	562 [265]	635 [300]	685 [323]	807 [381]	990 [467]
	HIGH HEAT (100%)	749 [353]	871 [411]	833 [393]	982 [463]	1286 [607]
Efficiency Select – CFM Options						
HEATING CFM [L/s]	LOW HEAT (40%)	550 [260]	599 [283]	745 [352]	910 [429]	1000 [472]
	MEDIUM HEAT (65%)	690 [325]	778 [367]	845 [399]	1014 [479]	1217 [574]
	HIGH HEAT (100%)	885 [418]	1029 [486]	985 [465]	1160 [547]	1520 [717]
	MAX HEAT (-4°F)	954 [450]	1109 [524]	1067 [501]	1251 [590]	1628 [769]

\*S = Standard Models

NOTES Standard model complies with California low NOx requirements.

Refer to Installation Manual for complete heating dip switch options.

COOLING CFM								
Model Number			FF97MV306017DH	FF97MV307017DH	FF97MV508521DH	FF97MV10021DH	FF97MV511524DH	
TARGET COOLING/ HEAT PUMP AIRFLOW	HIGH COOLING CFM [L/s]	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]
		SW 4 = OFF	SW 5 = ON	700 [330]	700 [330]	1225 [578]	1225 [578]	1225 [578]
		SW 4 = ON	SW 5 = ON	525 [248]	525 [248]	1050 [496]	1050 [496]	1050 [496]
	LOW COOLING CFM [L/s]	SW 4 = OFF	SW 5 = OFF	788 [372]	788 [372]	1313 [619]	1313 [619]	1313 [619]
		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]

[ ] Designates Metric Conversions

## 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 (HORIZONTAL) RACK:** RXGF-CB

**EXTERNAL (DOWNFLOW) FILTER RACK:** RXGF-CC

FILTER RACK FILTER SIZES* INCHES [mm]		
MODEL	RXGF-CB (HORIZONTAL)	RXGF-CC (DOWNFLOW)
FF97MV(-)060	16 x 24 [40 x 61]	(2) 14 x 20 [36 x 51]
FF97MV(-)070	16 x 24 [40 x 61]	(2) 14 x 20 [36 x 51]
FF97MV(-)085	20 x 24 [51 x 61]	(2) 14 x 20 [36 x 51]
FF97MV(-)100	20 x 24 [51 x 61]	(2) 14 x 20 [36 x 51]
FF97MV(-)115	24 x 24 [61 x 61]	(2) 14 x 20 [36 x 51]

\*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

FF97MV306017DH RXGY-F48  
FF97MV307017DH RXGY-F49  
FF97MV508521DH RXGY-F50  
FF97MV510021DH RXGY-F51  
FF97MV511524DH RXGY-F52

**L.P. CONVERSION KIT:** RXGJ-FP37

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

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





## THE ECONET® SMART THERMOSTAT

**BUILT-IN WIFI**

**4.3" LCD TOUCH SCREEN**

**LOCAL WEATHER** – Current conditions plus 6-day forecast

**5 OPERATING MODES** – Heat, Cool, Auto, Emergency Heat and Fan Only

**7-DAY PROGRAMMABLE SCHEDULE** – Offers comfort without thought

**ONE-TOUCH AWAY** – Quickly switch to your energy-saving away preferences

**VACATION SCHEDULING** – Allows you to save while you're away and come home to comfort



**CETST800SYS**

## OPERATIONAL FEATURES

**AUTOMATIC CHANGEOVER** – Transitions between heating and cooling automatically to keep the house comfortable

**INTEGRATED WATER CONTROL** – Enables easy water heater management

**SMOOTH ARRIVAL** – Prompts the system to start ahead of schedule to ensure the home is at the desired temperature at the scheduled time

**HUMIDITY CONTROL** – Supports humidifier accessories or over-cool based dehumidification

**DETAILED OPERATING STATUS** – View pertinent equipment status information and run times

**CONTINUOUS FAN** – Offers 5 speeds (Low, Medium Low, Medium, Medium High, High)

**SHORT-CYCLE PROTECTION** – Avoids damage to equipment from short run cycles

## MONITORING & REMOTE CONTROL FEATURES

**ACTIVE MONITORING** – Alerts to problems that need immediate attention

**REMOTE CONTROL** – Allows adjusting of comfort and settings from anywhere using a mobile device

**SERVICE ALERTS** – Sends routine maintenance reminders

**AIR FILTER MONITORING** – Detects when it's time to replace the air filter

**ALARM HISTORY** – Displays time-stamped alarm codes with clear descriptions







**GENERAL TERMS OF LIMITED WARRANTY\***

*Fujitsu General America, Inc.* 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 Unit Replacement (Registration Required).....	Limited Lifetime
Heat Exchanger.....	Limited Lifetime
Parts .....	Ten (10) Years

**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.**

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