

## Gas Furnaces



### FF98MV

98% 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: Upflow



† 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 98% 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>98</u>	<u>M</u>	<u>V</u>	<u>3</u>	<u>040</u>	<u>17</u>	<u>UP</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	98 - 98% AFUE	M - Modulating	V - ECM Variable Speed	3 - 3 Ton Drive 5 - 5 Ton Drive	040 - 40K BTUH [11.7 kW] 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"	UP - Upflow	S - Standard	G - Communicating, EcoNet®	A - 1st Design Series	A - 1st Series	P - Premium Grade

[ ] Designates Metric Conversions

AVAILABLE MODELS
FF98MV306017UPSGAAP
FF98MV307017UPSGAAP
FF98MV508521UPSGAAP
FF98MV510021UPSGAAP
FF98MV511524UPSGAAP

STANDARD EQUIPMENT
Multi-speed Constant CFM 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	FF98MV 306017UP	FF98MV 307017UP	FF98MV 508521UP	FF98MV 510021UP	FF98MV 511524UP
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	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 [524]	1294 [611]	1644 [776]	1629 [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]	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.

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

\*S=Standard Models

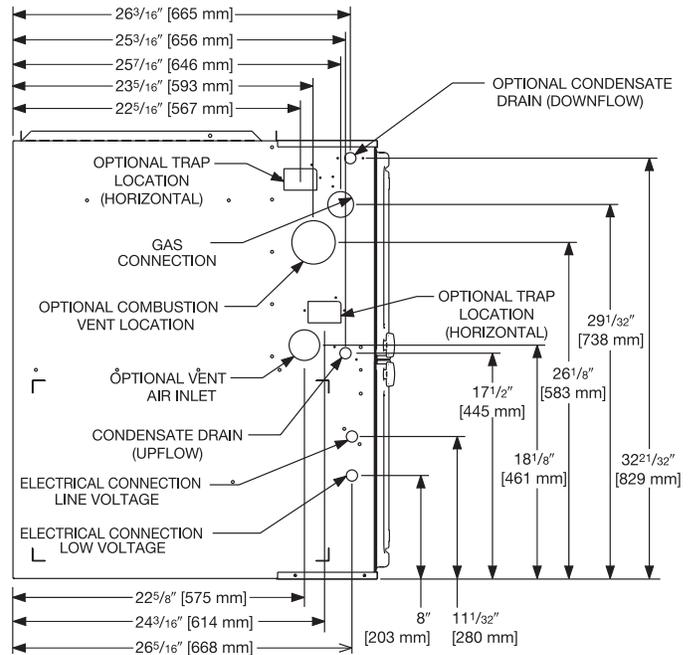
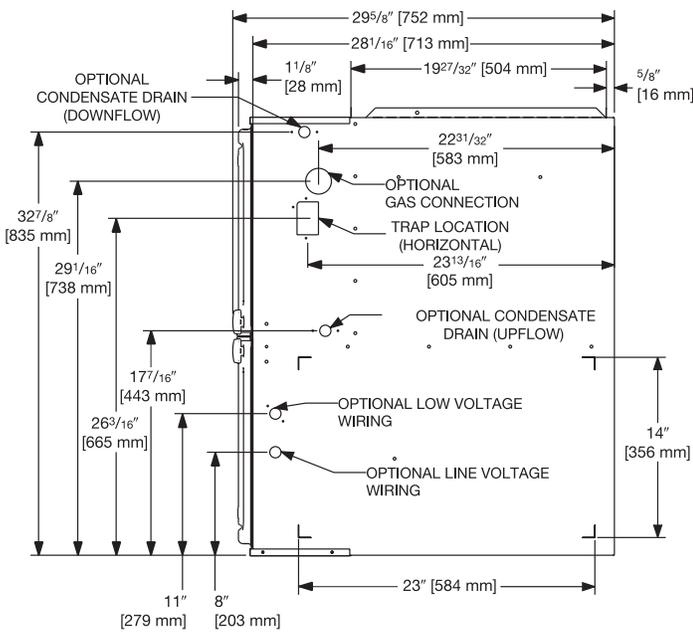
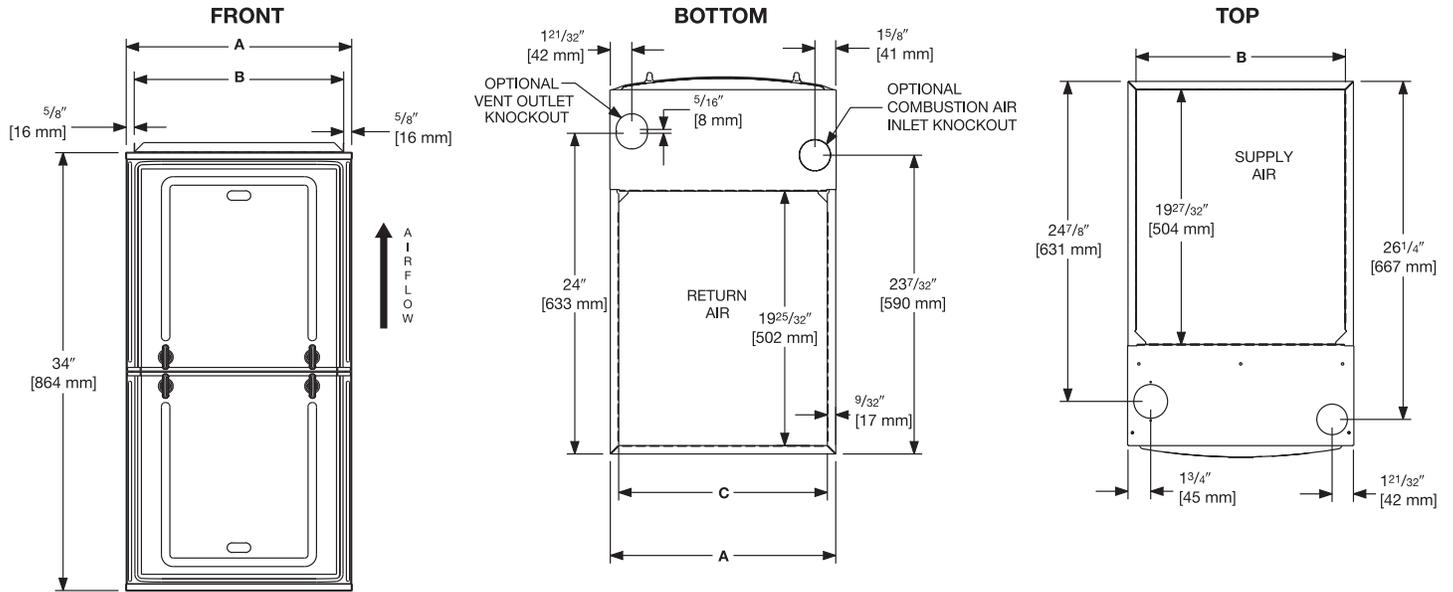
Standard model complies with California low NOx requirements.

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

## Upflow Application



## Dimensional Data: Upflow Model

MODEL FF98MV	LEFT SIDE	MINIMUM CLEARANCE (IN.) [mm]					SHIP WGTS.	FLANGE DIMENSIONS		
		RIGHT SIDE	BACK	TOP	FRONT	VENT		A	B	C
060	0	0	0	1 [25]	2 [51]	0	128 [58]	17 1/2 [445]	16 17/64 [413]	16 13/64 [412]
070	0	0	0	1 [25]	2 [51]	0	132 [60]	17 1/2 [445]	16 17/64 [413]	16 13/64 [412]
085	0	0	0	1 [25]	2 [51]	0	147.5 [67]	21 [533]	19 49/64 [502]	19 45/64 [500]
100	0	0	0	1 [25]	2 [51]	0	152 [69]	21 [533]	19 49/64 [502]	19 45/64 [500]
115	0	0	0	1 [25]	2 [51]	0	165 [75]	24 1/2 [662]	23 17/64 [591]	23 13/64 [589]

\*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.

[ ] Designates Metric Conversions

## Blower Performance Data

Comfort Select – CFM Options						
Model Number		FF98MV306017UP	FF98MV307017UP	FF98MV508521UP	FF98MV510021UP	FF98MV511524UP
HEATING CFM [L/s]	LOW HEAT (40%)	428 [202]	466 [220]	568 [268]	544 [257]	778 [367]
	MEDIUM HEAT (65%)	562 [265]	635 [300]	754 [356]	855 [404]	990 [467]
	HIGH HEAT (100%)	749 [353]	871 [411]	1015 [479]	1290 [609]	1286 [607]
Efficiency Select – CFM Options (factory setting)						
HEATING CFM [L/s]	LOW HEAT (40%)	550 [260]	599 [283]	730 [345]	725 [342]	1000 [472]
	MEDIUM HEAT (65%)	690 [325]	778 [367]	926 [437]	1058 [499]	1271 [600]
	HIGH HEAT (100%)	885 [418]	1029 [486]	1200 [566]	1525 [720]	1520 [717]
	MAX HEAT (-4°F)	954 [450]	1109 [524]	1294 [611]	1645 [776]	1629 [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			FF98MV306017UP	FF98MV307017UP	FF98MV508521UP	FF98MV510021UP	FF98MV511524UP	
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]

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## 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)
FF98MV3060	16 x 24 [40 x 61]
FF98MV3070	16 x 24 [40 x 61]
FF98MV5085	20 x 24 [51 x 61]
FF98MV5100	20 x 24 [51 x 61]
FF98MV5115	24 x 24 [61 x 61]

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

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## 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

FF98MV3060	RXGY-F53
FF98MV3070	RXGY-F54
FF98MV5085	RXGY-F55
FF98MV5100	RXGY-F56
FF98MV5115	RXGY-F57

**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

**STANDBY SCREEN** – Displays indoor temperature and current weather



**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."*