

# Vantix<sup>™</sup> Line Gas Furnaces





# **S98MV**

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













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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 Spart 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 Operation¹: 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>&</sup>lt;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>&</sup>lt;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, Alexa and all related logos are trademarks of Amazon.com, Inc. or its affiliates.

Ga	s Furn	aces										
<u>s</u>	<u>98</u>	<u>M</u>	<u>v</u>	<u>060</u>	<u>3</u>	<u>A</u>	<u>17</u>	<u>UP</u>	<u>s</u>	Ā	<u>A</u>	<u>P</u>
Brand	Furnace Efficiency	Stages of Heating	Motor Type	Heating Input	AC Max. Capacity	Major Series	Width	Position	NOx	Controls	Minor Series	Option Code
S - Sure Comfort	98 - 98% AFUE	M - Modulating	V - ECM Variable Speed	060 - 60,000 [17.6 kW] 070 - 70,000 [20.5 kW] 085 - 85,000 [24.9 kW] 100 - 100,000 [29.3 kW] 115 - 115,000 [33.7 kW]	3 - 3 ton drive 5 - 5 ton drive	A - 1st Design Series	17 - 17.5" Width 21 - 21" Width 24 - 24.5" Width	UP - Upflow	S - Standard	J - Communicating, EcoNet®	A - 1st Series	P - Premium Grade

#### [ ] Designates Metric Conversions

AVAILABLE MODELS	
S98MV0603A17UPSJAP	
S98MV0703A17UPSJAP	
S98MV0855A21UPSJAP	
S98MV1005A21UPSJAP	
S98MV1155A24UPSJAP	

	STANDARD EQUIPMENT
10	0% Safety Lock Out
29	-4C Stainless Steel Secondary Heat Exchanger Design
7 8	Segment LED
Ad	justable Cool Fan Off Delay
Ad	justable Heat Fan Off Delay
Alι	uminized Steel Primary Heat Exchanger Design
Blo	ocked Drain Sensor
Blo	ower Compartment Door Safety Switch
Со	mpletely Assembled and Wired
Dir	rect Drive Motor
Ec	oNet® Thermostat Connections (Enables Modulating Heat)
Ele	ectronic Air Cleaner Connections
Fla	ime Sense Current Diagnostics
Ful	lly Insulated Heat Exchanger Cabinet
Hu	ımidifier Connections
Hu	ımidifier On/Off Delay
Lin	mit Controls
	w Speed Continuous Fan Option
Ma	anual Shut-Off Valve
Ma	arked Condensate Hoses
Мс	odulating Redundant Main Gas Control
	e Hour Automatic Retry
Po	wer and Self-Test Diagnostics
	essure Switches
So	lid Bottom
	ower Insulation
So	lid State time on/Off Blower Control
	ansformer
	ro-Plus Stage Cooling Thermostat Connection <sup>1</sup>
	o Stage Heating Thermostat Connection (Three Stage Heating Operation
	riable Speed 3 Phase Induced Draft Motor
Va	riable Speed Electrically Commutated Blower Motor (ECM)

 $<sup>^{\</sup>mbox{\scriptsize 1}}\mbox{When Connected to Three Speed or Modulating AC/HP Product}$ 

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

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

MODEL NUMBER	(-)98MV(-)060A317U()	(-)98MV(-)070A317U()	(-)98MV(-)085A521U(-)	(-)98MV(-)100A521U()	(-)98MV(-)115A524U()
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
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.

NOTE: Standard model complies with California low NOx requirements.

This furnace does not meet air district requirements of 14 ng/J NOx emissions limit, and thus is subject to a mitigation fee of up to \$450.

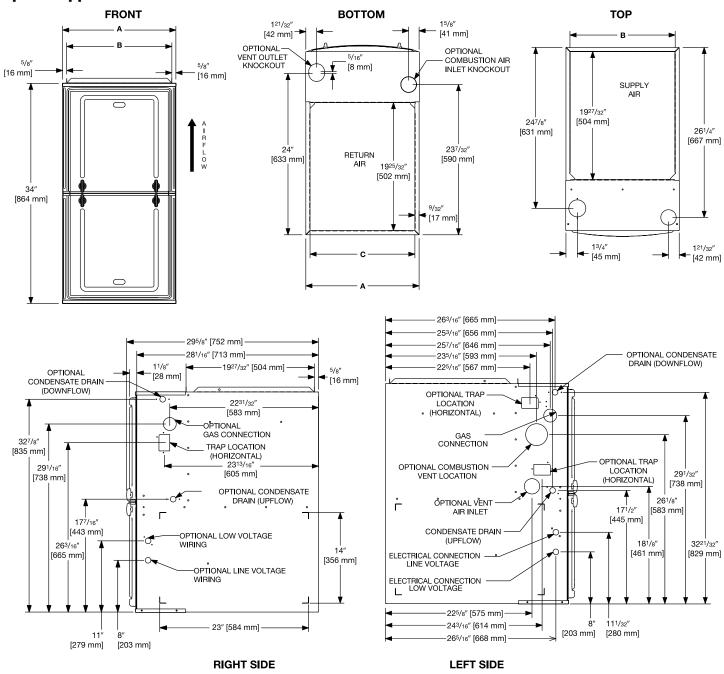
This furnace is to be installed for propane firing only in air districts requiring 14 ng/J NOx emission limits. Operating in natural gas mode is in violation of these Rules.

#### [ ] Designates Metric Conversions

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

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

# **Upflow Application**



# **Dimensional Data: Upflow Model**

MODEL	LEFT		MINIMUN	1 CLEARANCE	(IN.) [mm]	FLANGE DIMENSIONS			
S98MV	SIDE	RIGHT SIDE	BACK	ТОР	FRONT	VENT	A	В	С
060	0	0	0	1 [25]	2 [51]	0	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	17 <sup>1</sup> / <sub>2</sub> [445]	16 <sup>17</sup> /64 [413]	16 <sup>13</sup> / <sub>64</sub> [412]
085	0	0	0	1 [25]	2 [51]	0	21 [533]	19 <sup>49</sup> /64 [502]	19 <sup>45</sup> /64 [500]
100	0	0	0	1 [25]	2 [51]	0	21 [533]	19 <sup>49</sup> /64 [502]	19 <sup>45</sup> /64 [500]
115	0	0	0	1 [25]	2 [51]	0	241/2 [662]	23 <sup>17</sup> /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.

# **Blower Performance Data**

	Comfort Select – CFM Options							
Model N	lumber	(-)98V(-)100A521U()	(-)98V(-)115A524U()					
	LOW HEAT (40%)	428 [202]	466 [220]	568 [268]	544 [257]	778 [367]		
HEATING CFM [L/s]	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)				
	LOW HEAT (40%)	550 [260]	599 [283]	730 [345]	725 [342]	1000 [472]		
HEATING	MEDIUM HEAT (65%)	690 [325]	778 [367]	926 [437]	1058 [499]	1271 [600]		
CFM [L/s]	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]		

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

					COOLING CFM			
Model Number (-)98V(-)060A317U() (-)98V(-)070A317U() (-)98V(-)085A521U(-) (-)98V(-)100A521U() (-)98V(-)115A5								(-)98V(-)115A524U()
		SW 4 = OFF	SW 5 = OFF	1050 [496]	1050 [496]	1750 [825]	1750 [825]	1750 [825]
	HIGH COOLING	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	SW 4 = ON	SW 5 = OFF	656 [310]	656 [310]	1050 [496]	1050 [496]	1050 [496]
	CFM [L/s]	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]

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

NOTES Standard model complies with California low NOx requirements.

Refer to Installation Manual for complete heating dip switch options.

#### **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(-)060A317U(--) (-)98V(-)070A317U(--) (-)98V(-)085A521U(--) (-)98V(-)100A521U(--) (-)98V(-)115A524U(--) RXGY-F57 RXGY-F56 RXGY-F57 L.P. CONVERSION KIT: RXGJ-FP37

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

COMBUSTIBLE FLOOR BASE: RXGC-B17

RXGC-B21 RXGC-B24

## **Integrated Controls**



EcoNet® is smart, technology that allows Heating and Cooling, products to communicate with each other on one integrated network.

#### 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

Notes S98MV



#### **GENERAL TERMS OF LIMITED WARRANTY\***

Sure Comfort® 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.

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.

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5600 Old Greenwood Road Fort Smith, Arkansas 72908 • www.surecomfort.com 125 Edgeware Road, Unit 1 Brampton, Ontario • L6Y 0P5 • surecomfort.ca