



Air Conditioning & Heating

# GME8

*TWO-STAGE CONVERTIBLE,  
MULTI-SPEED ECM GAS FURNACE  
80% AFUE*

*HEATING INPUT: 60,000–100,000 BTU/H*



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### Standard Features

- Energy-efficient, multi-speed ECM blower motor
- Heavy-duty aluminized steel dual-diameter, tubular heat exchanger
- Two-stage convertible gas valve automatically adjust to high or low stage
- Durable Silicon Nitride igniter
- Quiet single speed draft inducer
- Self-diagnostic control board with constant memory fault code
- Color-coded low-voltage terminals with provisions for electronic air cleaner and humidifier
- Multi-speed blower motor
- Low continuous fan speed options offer quiet air circulation
- California Low NOx emissions models available
- AHRI Certified; ETL Listed

### Cabinet Features

- Multi-position installation: upflow, horizontal left or right with kit
- Cabinet air leakage ( $Q_{Leak}$ )  $\leq$  2%
- Convenient left or right connection for gas and electrical service
- Heavy-gauge steel cabinet with durable baked-enamel finish
- Fully insulated heat exchanger and blower section



\* Complete warranty details available from your local dealer or at [www.goodmanmfg.com](http://www.goodmanmfg.com). To receive the Lifetime Heat Exchanger Limited Warranty (good for as long as you own your home), 10-Year Unit Replacement Limited Warranty and 10-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration is not required in California or Québec.

	<b>G</b>	<b>M</b>	<b>E</b>	<b>80</b>	<b>040</b>	<b>3</b>	<b>B</b>	<b>X</b>	<b>A</b>	<b>A</b>	
	1	2	4	5,6	7,8,9	10	11	12	13	14	
<b>Brand</b>											<b>Minor Revision</b>
G - Goodman® Brand											A - Initial Release
											B - First Revision
<b>Configuration</b>											<b>Major Revision</b>
C - Downflow/Horizontal											A - Initial Release
D - Dedicated Downflow											B - First Revision
M - Upflow/Horizontal											
<b>Gas Valve</b>											<b>NOx</b>
E - Multi-Speed ECM											N - Natural Gas
H - Convertible Two-Stage, Single Phase											X - Low NOx
S - Single Stage, Single Speed											
<b>AFUE</b>	<b>Cabinet Width</b>										
80 - 80% AFUE	A - 14"    C - 21"										
	B - 17½"    D - 24½"										
<b>MBTU/h</b>	<b>Maximum CFM</b>										
040 - 40,000 BTU/h	3 - 1200 CFM										
100 - 100,000 BTU/h	4 - 1600 CFM										
060 - 60,000 BTU/h	5 - 2000 CFM										
120 - 120,000 BTU/h											
080 - 80,000 BTU/h											
140 - 140,000 BTU/h											

	GME8 0603B*B	GME8 0805C*B	GME8 0805D*A	GME8 1005C*B
<b>PERFORMANCE DATA</b>				
Input <sup>1</sup>	60,000	80,000	80,000	100,000
Output <sup>1</sup>	48,000	64,000	64,000	80,000
LP Output <sup>1</sup>	48,000	64,000	64,000	80,000
AFUE <sup>2</sup>	80	80	80	80
Tons AC @ 0.5" ESP	3	5	5	5
Temperature Rise Range (°F)	20 - 50	35 - 65	30 - 60	35 - 65
<b>CIRCULATOR BLOWER</b>				
Size (D x W)	10 X 8	10 X 10	10 X 10	10 X 10
HP	1/2	1	1	1
Speed	5	5	5	5
Vent Diameter <sup>3</sup>	4	4	4	4
No. of Burners	3	4	4	5
Disposable Filter (in <sup>2</sup> )	290	480	480	480
<b>ELECTRICAL DATA</b>				
Min. Circuit Ampacity <sup>4</sup>	8.2	14.8	14.8	14.8
Max. Overcurrent Protection <sup>5</sup>	15	15	15	15
<b>SHIP WEIGHT (LBS)</b>	98	116	123	120

<sup>1</sup> Low-fire rate is 75% of high-fire rate.

<sup>2</sup> DOE AFUE based upon Isolated Combustion System (ICS).

<sup>3</sup> Vent diameter may vary depending upon vent length. Refer to the latest editions of the National Fuel Gas Code NFPA 54/ANSI Z223.1 (in the USA) and the Canada National Standard of Canada, CAN/CSA B149.1 and CAN/CSA B142.2 (in Canada).

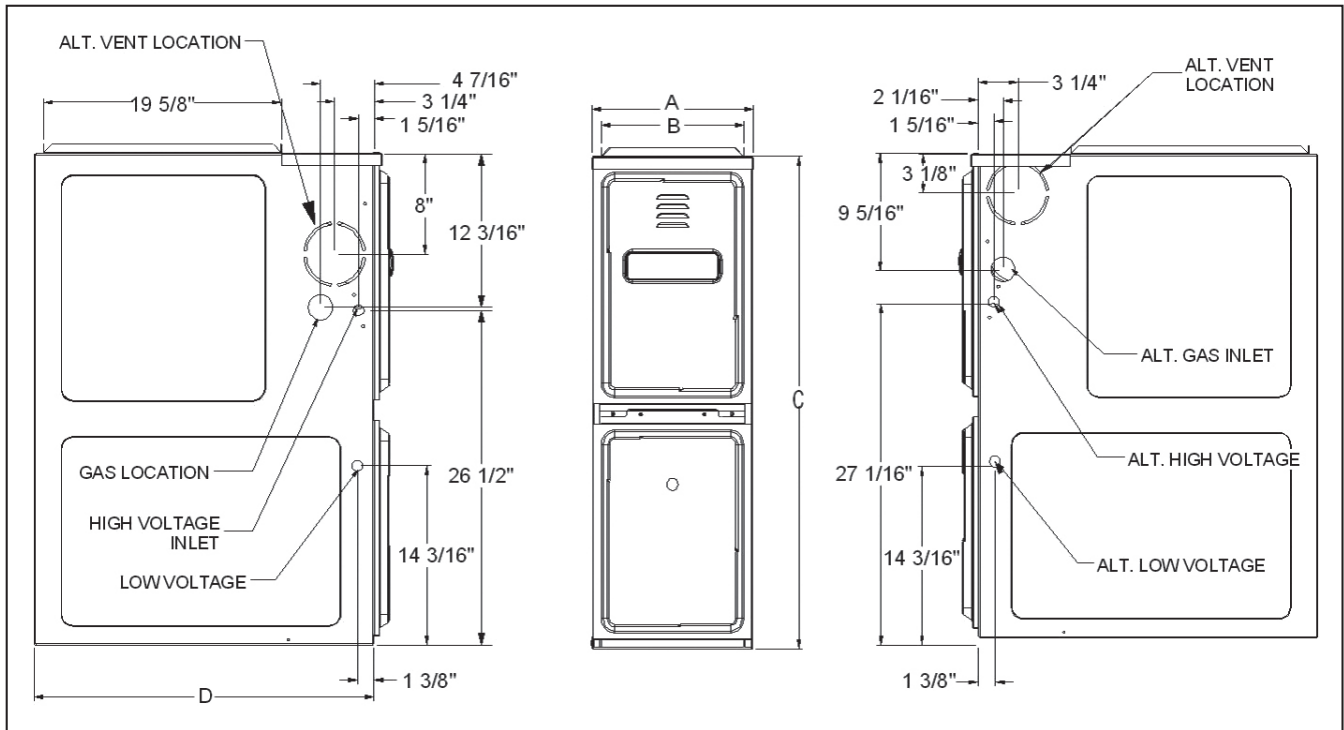
<sup>4</sup> Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

<sup>5</sup> Refers to maximum recommended fuse or circuit breaker size; may use fuses or HACR-type circuit breakers of the same size as noted.

**NOTES**

- All furnaces are manufactured for use on 115 VAC, 60 Hz, single phase electrical supply.
- Gas Service Connection ½" FPT
- Important: It is required to size overcurrent protection device and wires properly and make electrical connections in accordance with the National Electrical Code and/or all existing local codes.

**DIMENSIONS**



MODEL	A	B
GME80603B**	17½"	16"
GME80805C**	21"	19½"
GME80805D**	24½"	23"
GME81005C**	21"	19½"

**MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS**

SIDES	REAR	FRONT	BOTTOM	VENT		TOP
				SW	B	
1	0	3	C	6	1	1

C = If placed on combustible floor, the floor MUST be wood ONLY.

**NOTES:**

- For servicing or cleaning, a 24" front clearance is recommended.
- Unit connections (electrical, flue, and drain) may necessitate greater clearances than the minimum clearances listed above.
- In all cases, accessibility clearance must take precedence over clearances from the enclosure where accessibility clearances are greater.
- Refer to the appropriate USA and Canadian codes:
  - ◊ In the USA: the National Fuel Gas Code NFPA 54 / ANSI Z223.1
  - ◊ In Canada: the Canada National Standard of Canada, CAN/CSA B149.1 and CAN/CSA B142.2

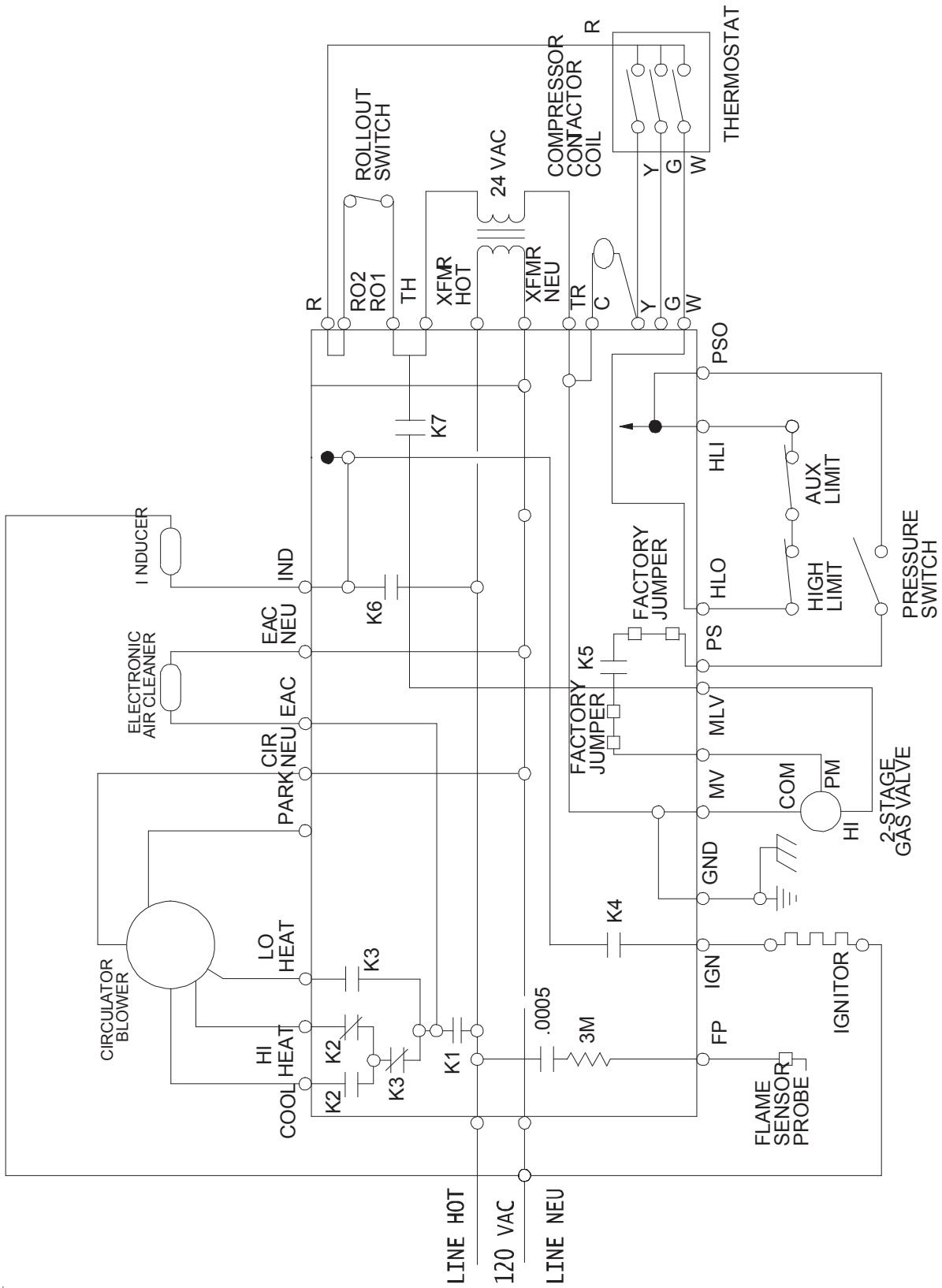
<b>(CFM &amp; TEMPERATURE RISE VS. EXTERNAL STATIC PRESSURE)</b>															
<b>MODEL</b>	<b>MOTOR SPEED</b>	<b>TONS AC<sup>1</sup></b>	<b>EXTERNAL STATIC PRESSURE, (INCHES WATER COLUMN)</b>												
			<b>0.1</b>		<b>0.2</b>		<b>0.3</b>		<b>0.4</b>		<b>0.5</b>		<b>0.6</b>	<b>0.7</b>	<b>0.8</b>
			<b>CFM</b>	<b>RISE</b>	<b>CFM</b>	<b>RISE</b>	<b>CFM</b>	<b>RISE</b>	<b>CFM</b>	<b>RISE</b>	<b>CFM</b>	<b>RISE</b>	<b>CFM</b>	<b>CFM</b>	<b>CFM</b>
GME8 0603B*B	T1	1½	875	---	793	---	736	---	674	---	592	---	556	509	460
	T2	2	1,032	43	965	46	914	49	861	---	810	---	756	712	659
	T3	2½	1,217	37	1,153	39	1,098	40	1,051	42	1,009	44	964	918	877
	T4	3	1,365	33	1,313	34	1,268	35	1,221	36	1,172	38	1,129	1,086	1,054
	T5	3½	1,549	29	1,505	30	1,460	30	1,420	31	1,378	32	1,350	1,305	1,268
GME8 0805C*B	T1	2½	1,268	47	1,198	49	1,151	51	1,092	54	1,041	57	988	932	883
	T2	3	1,362	44	1,305	45	1,261	47	1,212	49	1,170	51	1,121	1,074	1,021
	T3	3½	1,576	38	1,519	39	1,473	40	1,426	42	1,398	42	1,341	1,290	1,252
	T4	4	1,755	---	1,711	35	1,657	36	1,627	36	1,579	38	1,548	1,502	1,463
	T5	5	2,183	---	2,128	---	2,094	---	2,060	---	2,014	---	1,992	1,944	1,847
GME8 0805D*A	T1	3½	1,524	39	1,479	40	1,439	41	1,388	43	1,343	44	1,281	1,243	1,190
	T2	4	1,683	35	1,646	36	1,607	37	1,569	38	1,531	39	1,488	1,441	1,395
	T3	4	1,884	31	1,832	32	1,849	32	1,765	34	1,724	34	1,692	1,661	1,626
	T4	4	1,951	30	1,904	31	1,879	32	1,842	32	1,803	33	1,768	1,734	1,687
	T5	5	2,036	29	2,010	29	1,977	30	1,947	30	1,923	31	1,888	1,844	1,816
GME8 1005C*B	T1	3	1,466	51	1,415	52	1,357	55	1,306	57	1,248	59	1,202	1,144	1,088
	T2	3½	1,642	45	1,596	46	1,552	48	1,499	49	1,449	51	1,388	1,352	1,306
	T3	4	1,750	42	1,750	42	1,707	43	1,667	44	1,610	46	1,574	1,531	1,486
	T4	4	1,870	40	1,805	41	1,782	42	1,737	43	1,701	44	1,656	1,606	1,571
	T5	5	2,297	---	2,297	---	2,224	---	2,106	35	2,014	37	1,896	1,813	1,669

<sup>1</sup> @ 0.5" ESP

**NOTES**

- CFM in chart is without filter(s). Filters do not ship with this furnace, but must be provided by the installer. If the furnace requires two return filters, this chart assumes both filters are installed.
- All furnaces ship as high-speed cooling and medium-speed heating. Installer must adjust blower cooling and heating speed as needed.
- For most jobs, about 375 - 400 CFM per ton when cooling is desirable.
- INSTALLATION IS TO BE ADJUSTED TO OBTAIN TEMPERATURE RISE WITHIN THE RANGE SPECIFIED ON THE RATING PLATE.
- This chart is for information only. For satisfactory operation, external static pressure should not exceed value shown on the rating plate.
- At higher altitudes, a properly derated unit will have approximately the same temperature rise at a particular CFM, while ESP at the CFM will be lower.
- Factory Motor Speed Setting: T1 = 1st Stage Ht, T2 = 2nd Stage Ht, T5 = Cooling
- Temperature rise data is based on second-stage heat. First-stage heat is 75% of rise indicated above.





Typical Schematic  
 GME8 \*\* Model Furnaces  
 WR 50M56-289 Integrated Ignition Control

MODEL	DESCRIPTION
LPM-06 <sup>1</sup>	LP Conversion Kit (Springs & Orifice)
HANG20	High-Altitude Natural Gas Kit (4500+ Ft.)
AFE18-60A	Fossil Fuel Kit

<sup>1</sup> Honeywell or White-Rodgers valves

**MINIMUM FILTER SIZES**

MODEL #	GME80603B**	GME80805C**	GME80805D**	GME81005C**
Filter Size (in <sup>2</sup> )	(1) 16 x 25 (Side) or (1) 14 x 24 (Bottom)	(1) 16 x 25 (Side or Bottom) <sup>1</sup>	(2) 16 x 25 (Side) or (1) 20 x 25 (Bottom)	

Note: Other size filters of equal or greater surface area may be used; filters may also be centrally located.

<sup>1</sup> Use 2 - 16 X 25 filters on side returns or 20 X 25 filter on bottom return if furnace is connected to a cooling unit over 4 tons nominal capacity.