



Air Conditioning & Heating

# GMVC8

COMFORTNET™-COMPATIBLE

TWO-STAGE, VARIABLE-SPEED GAS FURNACE

80% AFUE

HEATING INPUT:

60,000–100,000 BTU/H



Goodman



### Standard Features

- Aluminized steel, dual-diameter tubular heat exchanger
- Two-stage gas valve operates on two-stage or single-stage thermostats
- ComfortNet™ Communications System compatible
- Efficient and quiet, variable-speed ECM circulator motor gently ramps up or down according to heating or cooling demand
- Silicon Nitride igniter
- Furnace control board with self-diagnostics and provisions for electronic air cleaner and 120-volt or 24-volt humidifiers
- Low constant fan speed circulates air throughout the home.
- Quiet, two-speed induced draft blower
- All models comply with California NOx emissions standards

### Cabinet Features

- Fully insulated, heavy-gauge steel cabinet with durable baked-enamel finish
- Designed for multi-position installation: upflow, horizontal left or right
- Removable bottom for side- or bottom-return applications
- Coil and furnace fit flush for most installations

### Contents

Nomenclature .....	2
Product Specifications .....	3
Dimensions .....	4
Airflow Data .....	5
Wiring Diagram .....	7
Accessories .....	8



\* 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.

NOMENCLATURE

	G	M	V	C	8	060	4	C	*	*	*	
	1	2	3	4	5	6,7,8	9	10	11	12	13	
<b>Brand</b>	G Goodman® Brand or Distinctions™										<b>Revisions</b>	
											Major and Minor Revisions	
<b>Airflow Direction</b>	C Downflow/Horizontal D Dedicated Downflow H High Airflow K Dedicated Upflow M Upflow/Horizontal										<b>NOx</b>	
											N Natural Gas X Low NOx	
<b>Description/Motor</b>	V Two-Stage/Variable-speed H Two-Stage/Multi-speed S Single-Stage/Multi-speed E Two-Stage/High-Efficiency										<b>Cabinet Width</b>	
											A 14" B 17½" C 21" D 24½"	
<b>SystemType</b>	C ComfortNet™ Communicating System										<b>Maximum CFM @ 0.5" ESP</b>	
											3 1200 4 1600 5 2000	
<b>AFUE</b>	95 95%      8 80% 9 90%+										<b>MBTU/h</b>	
											040: 40,000      100: 100,000 060: 60,000      120: 120,000 080: 80,000	



**SPECIFICATIONS**

	<b>GMVC8 0604B*B</b>	<b>GMVC8 0805C*B</b>	<b>GMVC8 1005C*B</b>
<b>HEATING CAPACITY</b>			
High Fire Input (BTU/h) <sup>1</sup>	60,000	80,000	100,000
High Fire Output (BTU/h) <sup>1</sup> (below)			
Natural Gas	48,000	64,000	80,000
LP Gas	48,000	64,000	80,000
Low Fire Input (BTU/h) <sup>1</sup>	42,000	56,000	70,000
Low Fire Output (BTU/h) <sup>1</sup> (below)			
Natural Gas	33,600	44,800	56,000
LP Gas	33,600	44,800	56,000
AFUE <sup>2</sup>	80	80	80
Available AC @ 0.5" ESP	1.5 - 4.0	2.0 - 5.0	2.0 - 5.0
Temperature Rise Range (° F)	20 - 50	20 - 50	25 - 55
<b>CIRCULATOR BLOWER</b>			
Size (D x W)	10" x 8"	10" x 10"	10" x 10"
Horsepower - RPM	¾	¾	¾
Speed	Variable	Variable	Variable
Vent Diameter <sup>1</sup>	4"	4"	4"
No. of Burners	3	4	5
Disposable Filter Size (in <sup>2</sup> )	610	813	1,016
<b>ELECTRICAL DATA</b>			
Min. Circuit Ampacity <sup>3</sup>	11.7	11.7	11.7
Max. Overcurrent Device (amps) <sup>4</sup>	15	15	15
<b>SHIP WEIGHT (LBS)</b>			
	152	178	194

1 Natural Gas BTU/h; for altitudes above from 0' to 4,500' above sea level, reduce input rating 4% for each 1,000' above 4,500' altitude. Low-fire rate is 70% of high-fire rate.

2 DOE AFUE based upon Isolated Combustion System (ICS)

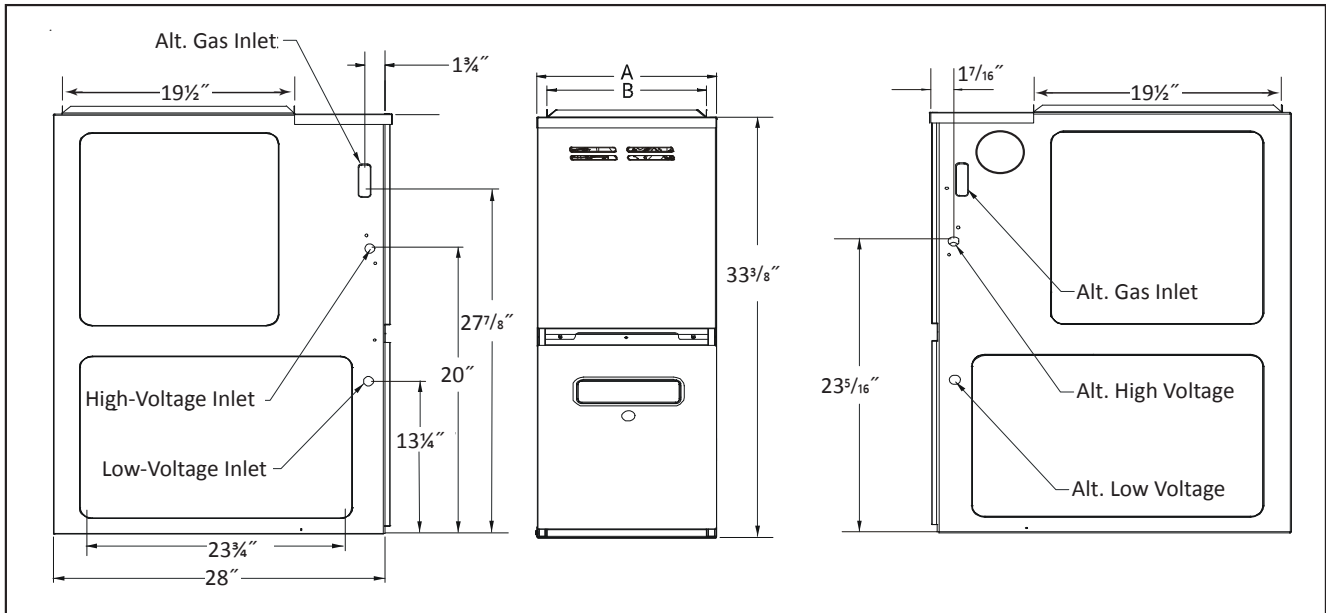
3 Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

4 Maximum Overcurrent Protection Device 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: Size fuses and wires properly and make electrical connections in accordance with the National Electrical Code and/or all existing local codes.

**DIMENSIONS**



**DIMENSIONS KEY**

MODEL	A	B
GMVC80604B*B	17 1/2"	16"
GMVC80805C*B	21"	19 1/2"
GMVC81005C*B	21"	19 1/2"

**MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS**

SIDES	REAR	FRONT <sup>1</sup>	VENT <sup>2</sup>		TOP
			SW	B	
1	0	3	6	1	1

Approved for line contact in the horizontal position.

<sup>1</sup> 24" clearance for serviceability recommended.

<sup>2</sup> Single Wall Vent (SW) to be used only as a connector. Refer to the venting tables outlined in the Installation Manual for additional venting requirements.

**AIRFLOW DATA**

**GMVC80604B\*B**  
**COOLING SPEEDS**  
 (@ .1" - .8" w.c. ESP)

Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	540	351
	Minus 5%	570	371
	Normal	600	390
	Plus 5%	630	410
	Plus 10%	660	429
B	Minus 10%	720	468
	Minus 5%	760	494
	Normal	800	520
	Plus 5%	840	546
	Plus 10%	880	572
C	Minus 10%	990	644
	Minus 5%	1,045	679
	Normal	1,100	715
	Plus 5%	1,155	751
	Plus 10%	1,210	787
D	Minus 10%	1,260	819
	Minus 5%	1,330	865
	Normal	1,400	910
	Plus 5%	1,470	956
	Plus 10%	1,540	1,001

**GMVC80604B\*B**  
**HEATING SPEEDS**  
 (@ .1" - .5" w.c. ESP; Rise Range: 20° - 50°F)

Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise
A	Minus 10%	1,125	788	46
	Minus 5%	1,188	831	43
	Normal	1,250	875	41
	Plus 5%	1,313	919	39
	Plus 10%	1,375	963	38
B	Minus 10%	1,215	851	43
	Minus 5%	1,283	898	40
	Normal	1,350	945	38
	Plus 5%	1,418	992	36
	Plus 10%	1,485	1,040	35
C	Minus 10%	1,305	914	40
	Minus 5%	1,378	964	38
	Normal	1,450	1,015	36
	Plus 5%	1,523	1,066	34
	Plus 10%	1,595	1,117	33
D	Minus 10%	1,395	977	37
	Minus 5%	1,473	1,031	35
	Normal	1,550	1,085	33
	Plus 5%	1,628	1,139	31
	Plus 10%	1,705	1,194	30

**GMVC80805C\*B**  
**Cooling Speeds**  
 (@ .1" - .8" w.c. ESP)

Tap	Adjust	High-Stage CFM	Low-Stage CFM
A	Minus 10%	720	468
	Minus 5%	760	494
	Normal	800	520
	Plus 5%	840	546
	Plus 10%	880	572
B	Minus 10%	990	644
	Minus 5%	1,045	679
	Normal	1,100	715
	Plus 5%	1,155	751
	Plus 10%	1,210	787
C	Minus 10%	1,260	819
	Minus 5%	1,330	865
	Normal	1,400	910
	Plus 5%	1,470	956
	Plus 10%	1,540	1,001
D	Minus 10%	1,620	1,053
	Minus 5%	1,710	1,112
	Normal	1,800	1,170
	Plus 5%	1,890	1,229
	Plus 10%	1,980	1,287

**GMVC80805C\*B**  
**Heating Speeds**  
 (@ .1" - .5" w.c. ESP; Rise Range: 20° - 50°F)

Tap	Adjust	High-Stage CFM	Low-Stage CFM	Rise
A	Minus 10%	1,350	945	49
	Minus 5%	1,425	998	46
	Normal	1,500	1,050	44
	Plus 5%	1,575	1,103	42
	Plus 10%	1,650	1,155	40
B	Minus 10%	1,440	1,008	46
	Minus 5%	1,520	1,064	44
	Normal	1,600	1,120	42
	Plus 5%	1,680	1,176	40
	Plus 10%	1,760	1,232	38
C	Minus 10%	1,530	1,071	44
	Minus 5%	1,615	1,131	41
	Normal	1,700	1,190	39
	Plus 5%	1,785	1,250	37
	Plus 10%	1,870	1,309	36
D	Minus 10%	1,620	1,134	41
	Minus 5%	1,710	1,197	39
	Normal	1,800	1,260	37
	Plus 5%	1,890	1,323	35
	Plus 10%	1,980	1,386	34

See Notes on previous page.

**AIRFLOW DATA (CONT.)**

**GMVC81005C\*B  
COOLING SPEEDS  
(@ .1" - .8" w.c. ESP)**

TAP	ADJUST	HIGH-STAGE CFM	LOW-STAGE CFM
A	Minus 10%	720	468
	Minus 5%	760	494
	Normal	800	520
	Plus 5%	840	546
	Plus 10%	880	572
B	Minus 10%	990	644
	Minus 5%	1,045	679
	Normal	1,100	715
	Plus 5%	1,155	751
	Plus 10%	1,210	787
C	Minus 10%	1,260	819
	Minus 5%	1,330	865
	Normal	1,400	910
	Plus 5%	1,470	956
	Plus 10%	1,540	1,001
D	Minus 10%	1,620	1,053
	Minus 5%	1,710	1,112
	Normal	1,800	1,170
	Plus 5%	1,890	1,229
	Plus 10%	1,980	1,287

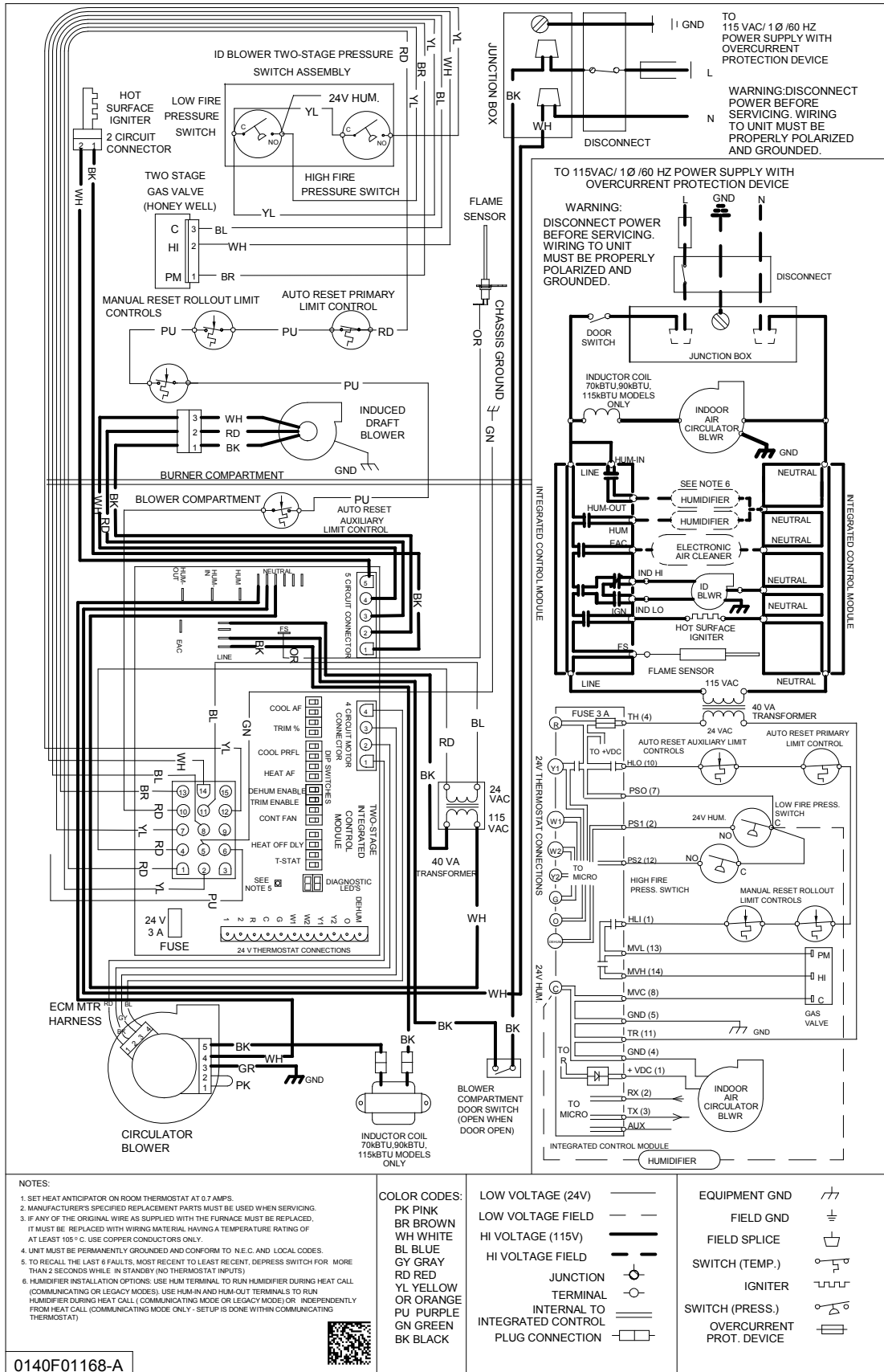
**GMVC81005C\*B  
HEATING SPEEDS  
(@ .1" - .5" w.c. ESP; RISE RANGE: 25° - 55°F)**

TAP	ADJUST	HIGH-STAGE CFM	LOW-STAGE CFM	RISE
A	Minus 10%	1,553	1,089	55
	Minus 5%	1,639	1,150	52
	Normal	1,725	1,210	49
	Plus 5%	1,811	1,271	47
	Plus 10%	1,898	1,331	45
B	Minus 10%	1,575	1,103	54
	Minus 5%	1,663	1,164	51
	Normal	1,750	1,225	49
	Plus 5%	1,838	1,286	46
	Plus 10%	1,925	1,348	44
C	Minus 10%	1,598	1,121	53
	Minus 5%	1,686	1,183	50
	Normal	1,775	1,245	48
	Plus 5%	1,864	1,307	46
	Plus 10%	1,953	1,370	44
D	Minus 10%	1,620	1,134	53
	Minus 5%	1,710	1,197	50
	Normal	1,800	1,260	47
	Plus 5%	1,890	1,323	45
	Plus 10%	1,980	1,386	43

**NOTES**

- These charts are for furnaces installed at 0' - 4,500'. At higher altitudes, a properly de-rated unit will have the same temperature rise at a particular CFM, while the ESP at that CFM will be lower.
- The installation must be adjusted to obtain a temperature rise within the range listed on the furnace nameplate.
- Do not operate above .5" w.c. ESP in heating mode.
- Propane gas installations will have a high-stage rise approximately 4°F lower than shown in the tables.

# WIRING DIAGRAM



**High Voltage:** Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

**WARNING**

Wiring is subject to change. Always refer to the wiring diagram or the unit for the most up-to-date wiring.

**ACCESSORIES**

<b>MODEL</b>	<b>DESCRIPTION</b>
LPM-06	LP Conversion Kit (Springs & Orifice) <sup>1</sup>
AFE18-60A	Fossil Fuel Kit (must be used in a dual-fuel application with a compatible thermostat)
ASAS	Electronic Air Cleaners (* = -10, -11, -12 or -18)
AMU	Media Air Cleaners (* = 1620, 2020, 1625 or 2025)

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