



Air Conditioning & Heating

GMVC8

COMFORTNET™-COMPATIBLE TWO-STAGE, VARIABLE-SPEED GAS FURNACE

80% AFUE

**HEATING INPUT:
60,000–100,000 BTU/H**

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



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



SPECIFICATIONS

	GMVC8 0604B*B	GMVC8 0805C*B	GMVC8 1005C*B
HEATING CAPACITY			
High Fire Input (BTU/h) ¹	60,000	80,000	100,000
High Fire Output (BTU/h) ¹ (below)			
Natural Gas	48,000	64,000	80,000
LP Gas	48,000	64,000	80,000
Low Fire Input (BTU/h) ¹	42,000	56,000	70,000
Low Fire Output (BTU/h) ¹ (below)			
Natural Gas	33,600	44,800	56,000
LP Gas	33,600	44,800	56,000
AFUE ²	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
CIRCULATOR BLOWER			
Size (D x W)	10" x 8"	10" x 10"	10" x 10"
Horsepower - RPM	¾	¾	¾
Speed	Variable	Variable	Variable
Vent Diameter ¹	4"	4"	4"
No. of Burners	3	4	5
Disposable Filter Size (in ²)	610	813	1,016
ELECTRICAL DATA			
Min. Circuit Ampacity ³	11.7	11.7	11.7
Max. Overcurrent Device (amps) ⁴	15	15	15
SHIP WEIGHT (LBS)	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)

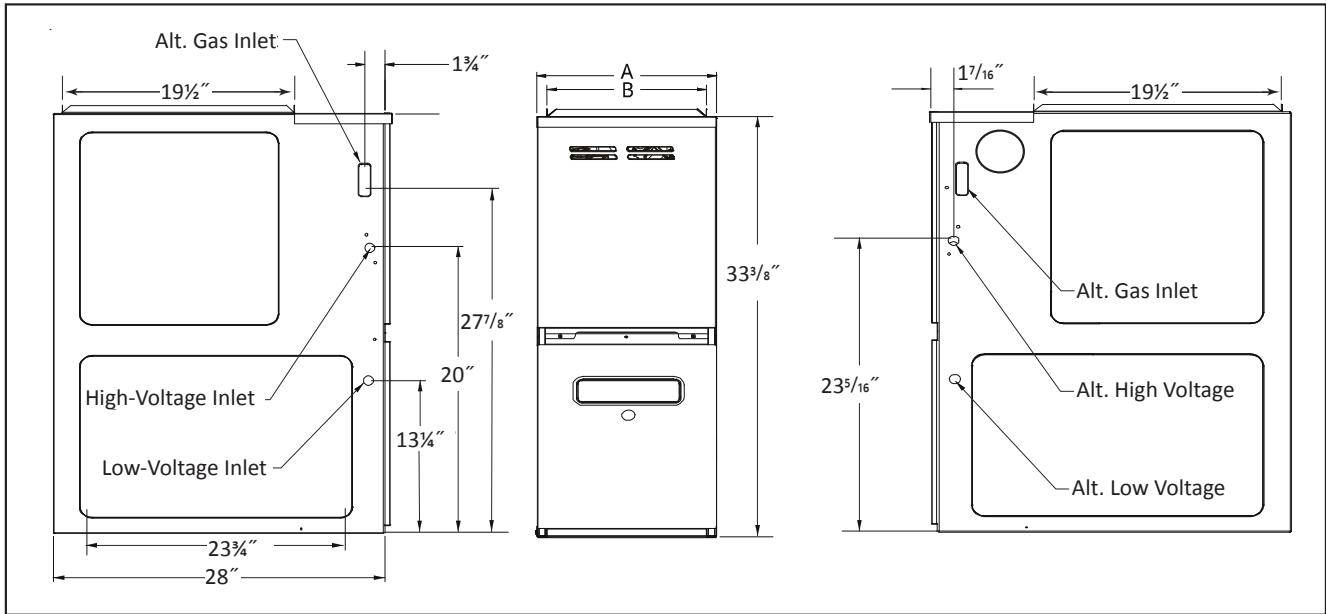
³ Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

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 ¹	VENT ²		TOP
			SW	B	
1	0	3	6	1	1

Approved for line contact in the horizontal position.

¹ 24" clearance for serviceability recommended.

² 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

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

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
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

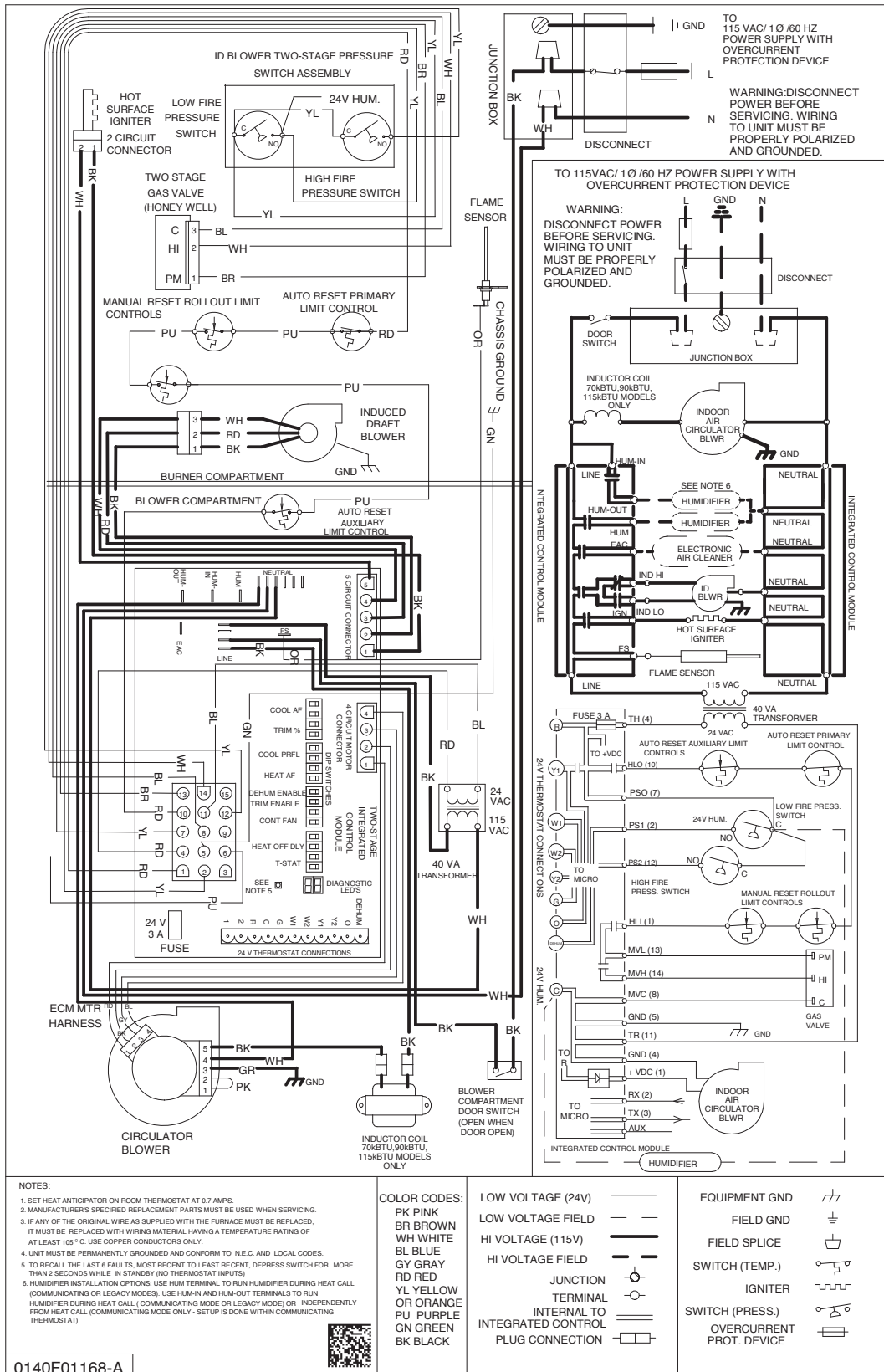
GMVC81005C*B
HEATING SPEEDS
 (@ .1" - .5" w.c. ESP; RISE RANGE: 25° - 55°F)

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



- NOTES:**
1. SET HEAT ANTICIPATOR ON ROOM THERMOSTAT AT 0.7 AMPS.
 2. MANUFACTURERS SPECIFIED REPLACEMENT PARTS MUST BE USED WHEN SERVICING.
 3. IF ANY OF THE ORIGINAL WIRE AS SUPPLIED WITH THE FURNACE MUST BE REPLACED, IT MUST BE REPLACED WITH WIRING MATERIAL HAVING A TEMPERATURE RATING OF AT LEAST 105 °C. USE COPPER CONDUCTORS ONLY.
 4. UNIT MUST BE PERMANENTLY GROUNDED AND CONFORM TO N.E.C. AND LOCAL CODES.
 5. TO RECALL THE LAST 6 FAULTS, MOST RECENT TO LEAST RECENT, DEPRESS SWITCH FOR MORE THAN 2 SECONDS WHILE IN STANDBY (NO THERMOSTAT INPUTS).
 6. HUMIDIFIER INSTALLATION OPTIONS: USE HUM TERMINAL TO RUN HUMIDIFIER DURING HEAT CALL (COMMUNICATING OR LEGACY MODES). USE HUM-IN AND HUM-OUT TERMINALS TO RUN HUMIDIFIER DURING HEAT CALL (COMMUNICATING MODE OR LEGACY MODE) OR INDEPENDENTLY FROM HEAT CALL (COMMUNICATING MODE ONLY - SETUP IS DONE WITHIN COMMUNICATING THERMOSTAT).

COLOR CODES:

PK PINK	LOW VOLTAGE (24V)	—
BR BROWN	LOW VOLTAGE FIELD	—
WH WHITE	HI VOLTAGE (115V)	—
BL BLUE	HI VOLTAGE FIELD	—
GY GRAY	JUNCTION	⊙
RD RED	TERMINAL	⊖
YL YELLOW	INTERNAL TO INTEGRATED CONTROL	—
OR ORANGE	PLUG CONNECTION	⊓
PU PURPLE		
GN GREEN		
BK BLACK		

EQUIPMENT GND	⊓
FIELD GND	⊓
FIELD SPLICE	⊓
SWITCH (TEMP.)	⊓
IGNITER	⊓
SWITCH (PRESS.)	⊓
OVERCURRENT PROT. DEVICE	⊓

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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

MODEL	DESCRIPTION
LPM-06	LP Conversion Kit (Springs & Orifice) ¹
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)

¹ White-Rodgers and Honeywell valves