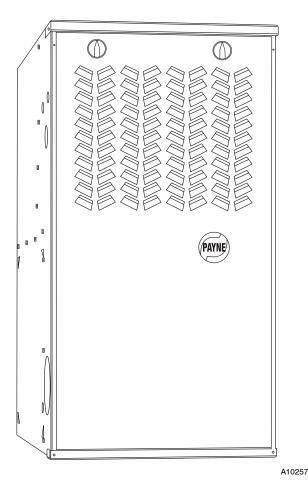


## PG8JVB 4-WAY MULTIPOISE INDUCED COMUBSTION GAS FURNACE INPUT CAPACITIES: 70,000 THRU 135,000 BTUH

# **Product Data**

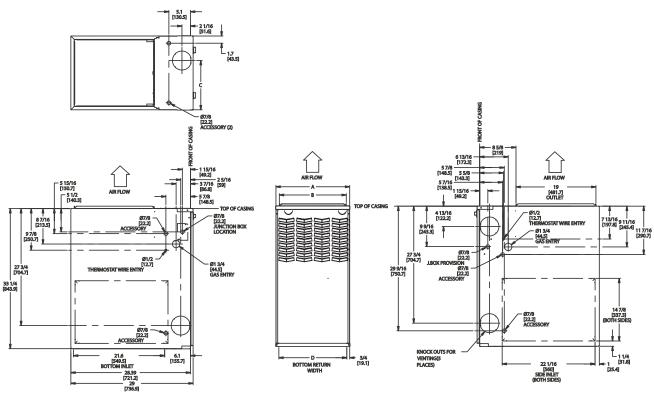


### THE PAYNE 80 GAS FURNACE

The PG8JVB 4-way Multipoise Gas Furnaces offer deluxe features not found in other two-stage 80% gas furnaces. The variable-speed ECM motor and Payne's control logic combine to provide the benefits of longer, more gentle cycles, and less temperature differences between rooms. The gas furnace control system provides a dehumidification mode and a motor speed selection for continuous fan operation selectable at the thermostat. Applications are easy with 4-way multipoise design, through-the-furnace downflow venting, 13 different venting options, and an overall design for easy service access. The PG8JVB furnaces are approved for use with natural or propane gas, and are approved for use in Low NOx Air Quality Management Districts.

### STANDARD FEATURES

- Variable-speed ECM blower motor
- Two heating stages
- Humidity control when using a humidity sensing thermostat
- Adjustable constant fan speed from the thermostat
- Certified to leak 2 percent or less of its nominal air conditioning CFM delivered when pressurized to 1-In. Water Gauge with all present air inlets and air outlets sealed.
- LED diagnostics and self test feature
- · Stores fault codes during power outages
- Adjustable heating air temperature rise
- Adjustable cooling airflow
- 4-way Multipoise furnace, 13 vent applications
- Hot surface ignition
- Draft safeguard switch to ensure proper furnace venting
- Dual fuel compatible (including 13.0 SEER Heat Pumps)
- All models are chimney friendly when used with accessory vent kit



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PG8JVB
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A10271

#### NOTES:

1. Two additional 7/8-in. (22 mm) diameter holes are located in the top plate.

Minimum return – air openings at furnace, based on metal duct. If flex duct is used, see flex duct manufacturer's recommendations for equivalent diameters.
a. For 800 CFM-16-in. (406 mm) round or 14 1/2 x 12-in. (368 x 305 mm) rectangle.

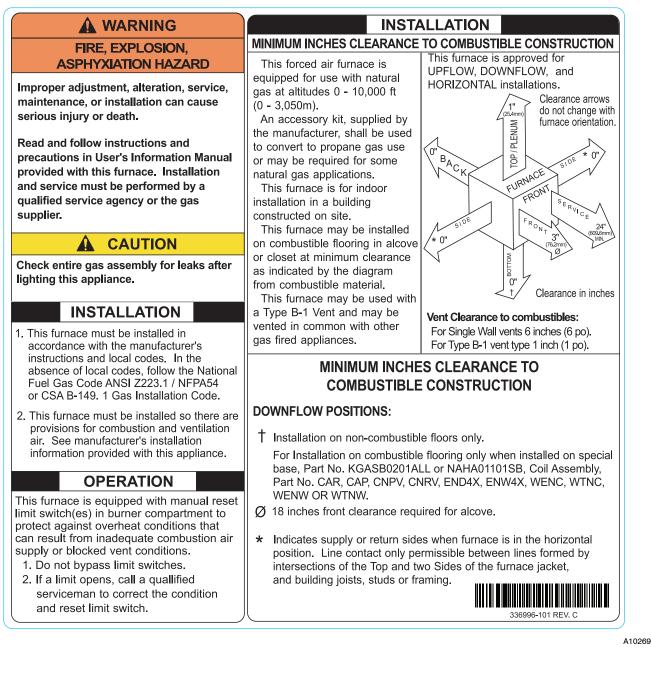
- b. For 1200 CFM-20-in. (508 mm) round or 14 1/2 x 19 1/2-in. (368 x 495 mm) rectangle.
- c. For 1600 CFM-22-in. (559 mm) round or 14 1/2 x 22 1/16-in. (368 x 560mm) rectangle.

d. For airflow requirements above 1800 CFM, see Air Delivery table in Product Data literature for specific use of single side inlets. The use of both side inlets, a combination of 1 side and the bottom, or the bottom only will ensure adequate return air openings for airflow requirements above 1800 CFM.

	Α	В	С	D			
FURNACE SIZE	CABINET WIDTH	OUTLET WIDTH	TOP AND BOTTOM FLUE COLLAR	BOTTOM	VENT CONNECTION SIZE	SHIP WT. LB (KG)	ACCESSORY FILTER MEDIA CABINET SIZE
036045	14-3/16 (360)	12-9/16 (319)	9-5/16 (237)	12-11/16 (322)	4 (102)	107 (49)	16 (406)
048070	17-1/2 (445)	15-7/8 (403)	11-9/16 (294)	16 (406)	4 (102)	126 (57)	16 (406)
048090	21 (533)	19-3/8 (492)	13-5/16 (338)	19-1/2 (495)	4 (102)	140 (64)	20 (506)
066110	21 (533)	19-3/8 (492)	13-5/16 (338)	19-1/2 (495)	4 (102)	152 (69)	20 (506)
066135	24-1/2 (622)	22-7/8 (581	15-1/16 (383)	23 (584)	4 (102)	163 (74)	24 (610)

\*135 size furnaces require a 5 or 6-in. (127 or 152 mm) vent. Use a vent adapter between furnace and vent stack. See Installation Instructions for complete installation requirements.

# **CLEARANCE TO COMBUSTIBLES**







Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to www.ahridirectory.org.





## **SPECIFICATIONS**

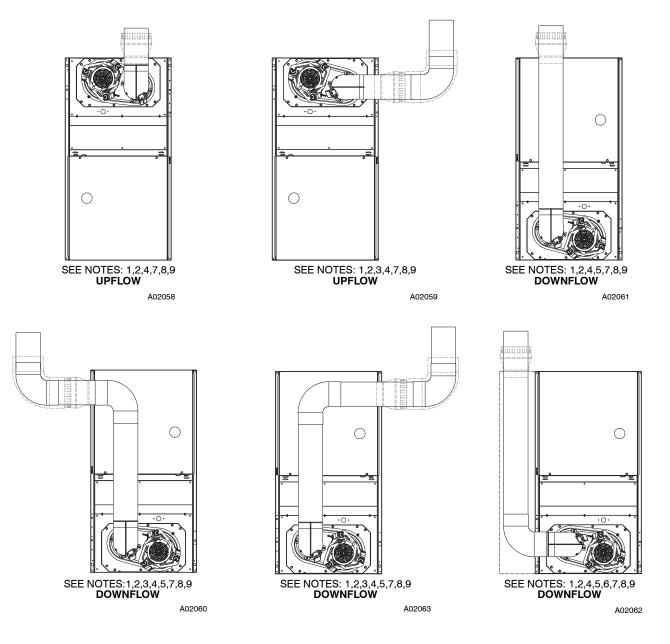
			036045	048070	048090	066110	066135		
RATINGS AND PERFORMANCE									
Input Btuh*		High	44,000	66,000	88,000	110,000	132,000		
Nonweatherized ICS	PG8JVB Upflow	Low	29,000	43,500	58,000	72,500	87,000		
Input Btuh*	PG8JVB Downflow / Horizon-	High	42,000	63,000	84,000	105,000	126,000		
Nonweatherized ICS	tal	Low	29,000	43,000	58,000	72,500	87,000		
Output Capacity (Btuh)†		High	35,000	53,000	71.000	89,000	107,000		
Nonweatherized ICS	PG8JVB Upflow	Low	23,000	35,000	47,000	59,000	70,000		
Output Capacity (Btuh)†	PG8JVB Downflow / Horizon-	High	34,000	51,000	68.000	85,000	102,000		
Nonweatherized ICS	tal	Low	23,000	35,000	47,000	59,000	70,000		
AFUE†			80.0	80.0	80.0	80.0	80.0		
		High	30-60	25-55	30-60	30-60	40-70		
Certified Temperature Rise Range -	°F (°C)		(17–33)	(14–30)	(17–33)	(17–33)	(22-39)		
	( )	Low	20-50 (11-28)	15-45 (8-25)	25-55 (14–30)	20-50 (11–28)	25-55 (14-30)		
Certified External Static Pressure		Heat/Cool	0.10/0.50	0.12/0.50	0.15/0.50	0.20/0.50	0.20/0.50		
	Heatir	ng High/Low	820/725	1570/1045	1265/1030	1555/1295	1865/1640		
Airflow CFM‡		Cooling	1175	1685	1770	2230	2290		
ELECTRICAL		ecomig				2200	2200		
Unit Volts-Hertz-Phase					115-60-1				
Operating Voltage Range	Min-Max	×	104-127						
Maximum Unit Amps		~	8.0	9.6	10.2	13.0	13.0		
Maximum Wire Length (Measure 1 V	Nav in Et (M))		34 (10.4)	28 (8.5)	27 (8.2)	34 (10.4)	34 (10.4)		
Minimum Wire Size			01(10.1)	14	L1 (0.L)	1:	,		
Maximum Fuse or Ckt Bkr Size (Amr	ns)**		14 12						
Transformer (24v)				10	40va				
External Control	Heating				12va				
Power Available	Cooling				35va				
					oora				
					Standard				
Air Conditioning Blower Relay					Standard				
Air Conditioning Blower Relay CONTROLS									
Air Conditioning Blower Relay CONTROLS Limit Control				Solid-Si	SPST	eration			
Air Conditioning Blower Relay CONTROLS Limit Control Heating Blower Control			2		SPST tate Time Op		6		
Air Conditioning Blower Relay CONTROLS Limit Control Heating Blower Control Burners (Monoport)			2	Solid-Si 3	SPST tate Time Op 4	eration 5	6		
Air Conditioning Blower Relay CONTROLS Limit Control Heating Blower Control Burners (Monoport) Gas Connection Size			2		SPST tate Time Op		6		
Air Conditioning Blower Relay CONTROLS Limit Control Heating Blower Control Burners (Monoport) Gas Connection Size GAS CONTROLS	Mfr		2	3	SPST tate Time Op 4 1/2-in. NPT	5	6		
Air Conditioning Blower Relay CONTROLS Limit Control Heating Blower Control Burners (Monoport) Gas Connection Size	Mfr.		2	3 W	SPST tate Time Op 4 1/2-in. NPT /hite-Rodger	5 s	6		
Air Conditioning Blower Relay CONTROLS Limit Control Heating Blower Control Burners (Monoport) Gas Connection Size GAS CONTROLS Gas Valve	Min. inlet pressure (In. W.C.)		2	3 W 4.5	SPST tate Time Op 4 1/2-in. NPT //hite-Rodger 5 (Natural Ga	5 s s)	6		
Air Conditioning Blower Relay CONTROLS Limit Control Heating Blower Control Burners (Monoport) Gas Connection Size GAS CONTROLS Gas Valve (Redundant)			2	3 W 4.5 13.	SPST tate Time Op 4 1/2-in. NPT /hite-Rodger 5 (Natural Ga 6 (Natural Ga	5 s s)	6		
Air Conditioning Blower Relay CONTROLS Limit Control Heating Blower Control Burners (Monoport) Gas Connection Size GAS CONTROLS Gas Valve (Redundant) Ignition Device	Min. inlet pressure (In. W.C.)		2	3 W 4.5 13.	SPST tate Time Op 4 1/2-in. NPT /hite-Rodger 5 (Natural Ga 6 (Natural Ga Hot Surface	5 s s)	6		
Air Conditioning Blower Relay CONTROLS Limit Control Heating Blower Control Burners (Monoport) Gas Connection Size GAS CONTROLS Gas Valve (Redundant) Ignition Device Factory-installed orifice	Min. inlet pressure (In. W.C.)		2	3 W 4.5 13.	SPST tate Time Op 4 1/2-in. NPT /hite-Rodger 5 (Natural Ga 6 (Natural Ga	5 s s)	6		
Air Conditioning Blower Relay CONTROLS Limit Control Heating Blower Control Burners (Monoport) Gas Connection Size GAS CONTROLS Gas Valve (Redundant) Ignition Device Factory-installed orifice BLOWER DATA	Min. inlet pressure (In. W.C.)			3 W 4.5 13.	SPST tate Time Op 4 1/2-in. NPT /hite-Rodger 5 (Natural Ga 6 (Natural Ga Hot Surface Size 43	5 s s) as)			
Air Conditioning Blower Relay CONTROLS Limit Control Heating Blower Control Burners (Monoport) Gas Connection Size GAS CONTROLS Gas Valve (Redundant) Ignition Device Factory-installed orifice BLOWER DATA Direct-Drive Motor HP (ECM)	Min. inlet pressure (In. W.C.)		1/2	3 W 4.5 13.	SPST tate Time Op 4 1/2-in. NPT /hite-Rodger 5 (Natural Ga 6 (Natural Ga 6 (Natural Ga 6 (Natural Ga 5 Size 43 3/4	5 s s) as)	1		
Air Conditioning Blower Relay CONTROLS Limit Control Heating Blower Control Burners (Monoport) Gas Connection Size GAS CONTROLS Gas Valve (Redundant) Ignition Device Factory-installed orifice BLOWER DATA Direct-Drive Motor HP (ECM) Motor Full Load Amps	Min. inlet pressure (In. W.C.)			3 W 4.5 13.	SPST tate Time Op 4 1/2-in. NPT /hite-Rodger 5 (Natural Ga 6 (Natural Ga 6 (Natural Ga 6 (Natural Ga 8 (Natural Ga 8 (Natural Ga 8 (Natural Ga 9 (Natural Ga 8 (Natural Ga 9 (Natural Ga	5 s s) as)			
Air Conditioning Blower Relay CONTROLS Limit Control Heating Blower Control Burners (Monoport) Gas Connection Size GAS CONTROLS Gas Valve (Redundant) Ignition Device Factory-installed orifice BLOWER DATA Direct-Drive Motor HP (ECM)	Min. inlet pressure (In. W.C.) Max. inlet pressure (In. W.C.)		1/2	3 W 4.5 13.	SPST tate Time Op 4 1/2-in. NPT /hite-Rodger 5 (Natural Ga 6 (Natural Ga 6 (Natural Ga 6 Size 43 3/4	5 s s) as)	1		

Gas input ratings are certified for elevations to 2000 ft. (610 M). For elevations above 2000 ft. (610 M), reduce ratings 4 percent for each 1000 ft. (305 M) above sea level. Refer to National Fuel Gas Code NFPA 54/ANSI Z223.1 – 2012 Table F.4 or furnace installation instructions.

Capacity in accordance with U.S. Government DOE test procedures. t

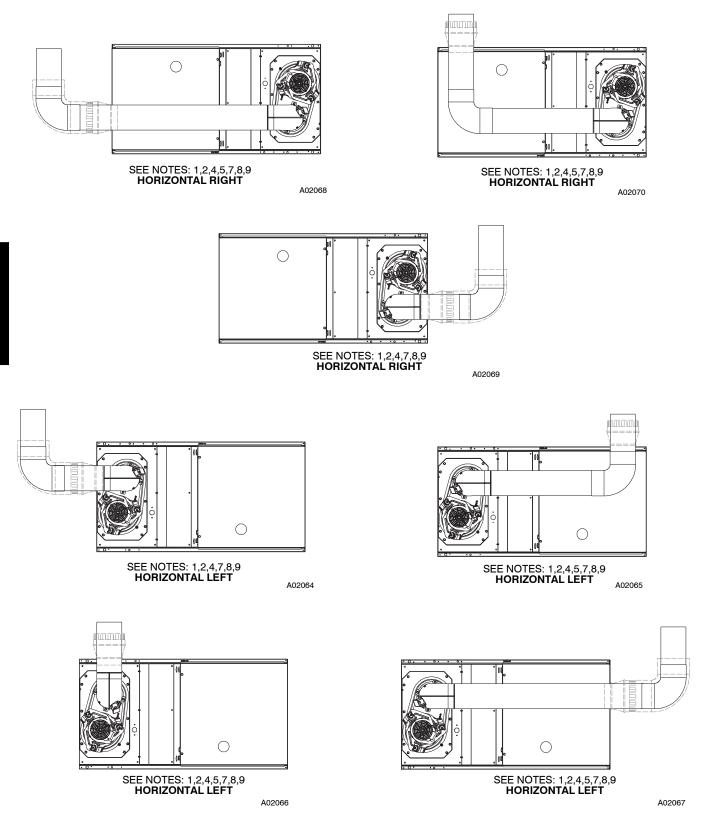
Airflow shown is for bottom only return-air supply for the as-shipped speed tap. For air delivery above 1800 CFM, see Air Delivery table for other options. A filter is required for each return-air supply. An airflow reduction of up to 7 percent may occur when using the factory-specified 4-5/16 in. (110 mm) wide, high ŧ efficiency media filter. \*\* Time-delay type is recommended.

ICS Isolated Combustion System



#### Venting Notes

- For common vent, vent connector sizing and vent material: United States, latest edition of the National Fuel Gas 1. Code (NFGC), ANSI Z223.1/NFPA 54.
- Immediately increase to 5-in. (127 mm) vent connector outside furnace casing when 5-in. (127 mm) vent connector 2. required, refer to Note 1.
- З. Side outlet vent for upflow and downflow installations must use Type B vent immediately after exiting the furnace, except when Downflow Vent Guard is used in downflow position.
- Type B vent where required, refer to Note 1. 4.
- 5.
- 6.
- 4-in. (102 mm) single wall vent must be used inside furnace casing and the Downflow Vent Guard Kit. Accessory Downflow Vent Guard Kit required in downflow installations with bottom vent configuration. Chimney Adapter Kit required for exterior masonry chimney applications. Refer to Chimney Adapter Kits for sizing and complete application details. 7.
- Secure vent connector to furnace elbow with (2) corrosion-resistant sheet metal screws, space approximately 180° 8. apart.
- Secure all other single wall vent connector joints with (3) corrosion-resistant screws spaced approximately 120° apart. Secure Type B vent connectors per vent connector manufacturer's recommendations. 9.



6

## ACCESSORIES

DESCRIPTION	PART NO.	036045	048070	048090	066110	066135					
	FILCABXL0016	Х	Х								
Media Filter Cabinet	FILCABXL0020			Х	Х						
	FILCABXL0024					Х					
	FILBBCAR0016	Х	Х								
Cartridge Media Filter	FILBBCAR0020			Х	Х						
	FILBBCAR0024					Х					
	EXPXXUNV0016	Х	Х								
EZ Flex Media Filter with End Caps	EXPXXUNV0020			х	Х						
	EXPXXUNV0024					Х					
	EXPXXFIL0016	Х	Х								
Replacement EZ Flex Filter Media	EXPXXFIL0020			Х	Х						
Media	EXPXXFIL0024					Х					
	KGBFR0401B14	Х									
External Bottom Return	KGBFR0501B17		х			1					
Filter Rack	KGBFR0601B21	Х	Х								
	KGBFR0701B24			Х	Х						
External Side Return Filter Rack	KGAFR0201ALL	Х	Х	Х	Х	Х					
	KGAWF1306UFR†	Х	Х								
Unframed Filter, 3/4-in. (19 mm)	KGAWF1406UFR			х	Х	1					
	KGAWF1506UFR					Х					
Flue Extension	KGAFE0112UPH	Х	х	х	Х	Х					
Combustible Floor Base	KGASB0201ALL	Х	х	х	Х	Х					
Downflow Vent Guard	KGBVG0101DFG	Х	х	х	Х	Х					
Vent Extension Kit	KGAVE0101DNH	Х	Х	Х	Х	Х					
	KGACA02014FC	Х	Х	Х	Х						
Chimney Adapter Kit	KGACA02015FC					Х					
Natural-to-Propane Conversion Kit *	KGCNP5201VSP	x	x	x	х	х					
Propane-to-Natural Conversion Kit	KGCPN4401VSP	х	х	х	x	х					
Twinning Kit	KGATW0801HSI			х	Х	Х					
High Altitude Kit	KGAHA5801PSW	Х	х	х	Х	Х					
	LH32DB207										
	LH32DB202										
	LH32DB200										
	LH32DB205										
	LH32DB208		1								
Gas Orifice	LH32DB078	See Installe	tion Instructions	for model, altitu	ide and heat i						
das Office	LH32DB076	See Installa		nor model, allit	due, and neal v	alue usages.					
	LH32DB203										
	LH32DB201	1									
	LH32DB206	1									
	LH32DB209	1									
	LH32DB210	1									
UV Lights	1		Model UV	L							
Heat/Energy Recovery Ventilator			Models HRV of	r ERV							
Humidifier			Model HUI	N							
Electronic or Mechanical Air Cleaner		Model	EACA, EZXCA	B, or FILCAB							

\* Factory authorized, field installed. Fuel conversion kits are CSA (formerly AGA/CGA) recognized.

† Suitable for Side Return Filter Rack.

X = Accessory

S = Standard

# **CONTROLS - THERMOSTAT AND ZONING**

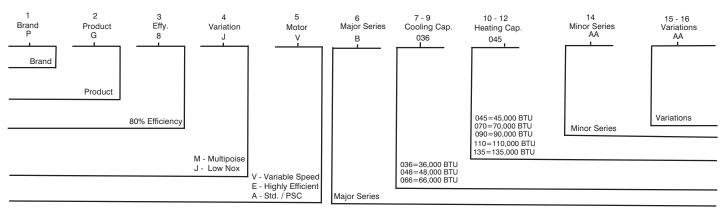
DESCRIPTION	PART NO.
NON-PROGRAMMABLE	
For use with 1-speed Air Conditioner – deg. F/C, Auto Changeover	T6-NAC, T2-NAC
For use with 1-speed Heat Pump – deg. F/C, Auto Changeover	T6-NHP, T2-NHP*
For use with 2-speed Air Conditioner – deg. F/C, Auto Changeover	T6-NRH*
For use with multi-use / stage configurations - deg. F/C, Auto Changeover/Temperature and Humidity Con- trol	T6–PRH†
PROGRAMMABLE THERMOSTAT SELECTION	
For use with 1-speed Air Conditioner – deg. F/C, Auto Changeover, 7-Day Programmable	T6-PAC
For use with 1-speed Heat Pump - deg. F/C, Auto Changeover, 7-Day Programmable	T6-PHP*
For use with 2-speed Air Conditioner – deg. F/C, Auto Changeover, 7-Day Programmable	T6-PRH*
For use with 1-speed Air Conditioner – deg. F/C, 5–2 Day Programmable	T6-PAC
For use with multi-stage applications - deg. F/C, Auto Changeover, 7-Day Programmable	T2-PHP‡
For multi-use / stage configurations – deg. F/C, Auto Changeover, 7-Day Programmable/Temperature and Humidity Control	T6-PRH†

\* Model HP and 2S thermostat must be field converted to air conditioner operation.

† Thermidistat Control can be configured for multiple use and staging. It must be configured for each specific application.

‡ Dual Fuel thermostat is used with furnace and heat pump application.

# MODEL NUMBER NOMENCLATURE



Not all families have these models.

A14364

			G <sup>4</sup> AND H										
	Casling	•	-5 and SW	/2-2 set t	o OFF, ex	cept as i							
Unit Size	Cooling Switch Settings     External Static Pressure (ESP)       SW2-8     SW2-7     SW2-6     0.1     0.2     0.3     0.4     0.5     0.6     0.7									0.8	0.9	1.0	
036045	0112-0	0112-1	0112-0	0.1	0.2	0.5	0.4	0.0	0.0	0.7	0.0	0.0	
	OFF	OFF	OFF	1190	1140	1100	1065	1020	985	905	800	665	52
	OFF	OFF	ON	620	560	520	455	410	355	305	255	See n	note 4
	OFF	ON	OFF	795	755	705	670	615	585	530	490	440	40
	OFF	ON	ON	1020	955	930	890	840	805	755	715	645	49
	ON	OFF	OFF	1190	1140	1100	1065	1020	985	905	800	665	52
	ON	OFF	ON	1455	1390	1325	1255	1175	1085	1000	880	755	57
	ON	ON	OFF	1455	1390	1325	1255	1175	1085	1000	880	755	57
	ON	ON	ON	1455	1390	1325	1255	1175	1085	1000	880	755	57
	Maxin	num Clg Ai	irflow <sup>2</sup>	1455	1390	1325	1255	1175	1085	1000	880	755	57
	High	n Heat Airf	ow <sup>3</sup>	915	860	825	790	735	700	650	610	550	45
	Low	/ Heat Airfl	ow <sup>3</sup>	780	730	685	635	585	545	495	450	400	37
Unit Size		Switch S	-					al Static					
048070	SW2-8	SW2-7	SW2-6	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.
040070	OFF	OFF	OFF	1615	1570	1530	1490	1450	1405	1365	1325	1280	12
	OFF	OFF	ON	640	1070	1000	1400		See note		1020	1200	12
					375	700	0.40		ee note				
	OFF	ON	OFF	840	775	700	640			r	note 4		
	OFF	ON	ON	1045	980	920	860	805	750	690	640	See n	1
	ON	OFF	OFF	1220	1175	1120	1075	1025	970	925	875	820	77
	ON	OFF	ON	1390	1335	1290	1245	1200	1155	1105	1055	1015	97
	ON	ON	OFF	1615	1570	1530	1490	1450	1405	1365	1325	1280	12
	ON	ON	ON	1890	1850	1810	1750	1685	1615	1545	1475	1395	12
	Maxin	num Clg Ai	irflow <sup>2</sup>	1890	1850	1810	1750	1685	1615	1545	1475	1395	12
	High	n Heat Airf	ow <sup>3</sup>	1540	1490	1450	1410	1365	1320	1275	1235	1190	11
	Low	/ Heat Airfl	ow <sup>3</sup>	1370	1320	1275	1225	1180	1135	1085	1040	995	95
Unit Size		Switch S						al Static					·
048090	SW2-8	SW2-7	SW2-6	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.
	OFF	OFF	OFF	1625	1580	1535	1490	1445	1390	1325	1215	1070	91
	OFF	OFF	ON	555				5	See note 4	1 4			
	OFF	ON	OFF	845	770	670	595			See r	note 4		
	OFF	ON	ON	1010	950	880	790	725	670	580		See note 4	4
	ON	OFF	OFF	1210	1155	1105	1035	970	910	850	800	730	66
	ON	OFF	ON	1405	1360	1305	1255	1185	1130	1070	1015	960	87
	ON	ON	OFF	1625	1580	1535	1490	1445	1390	1325	1215	1070	91
	ON	ON	ON	2095	2010	1935	1855	1770	1675	1540	1300	1120	94
		num Clg Ai		2095	2010	1935	1855	1770	1675	1540	1300	1120	94
		n Heat Airf		1735	1685	1630	1580	1520	1455	1375	1235	1085	91
				1	1	1				1	<b>-</b>	1	1 .

Unit Size		g Switch S		External Static Pressure (ESP)										
	SW2-8	SW2-7	SW2-6	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
066110		1	1		1	1	r	1	Γ	I	1	1	1	
	OFF	OFF	OFF	2055	2000	1950	1900	1840	1790	1740	1675	1625	1565	
	OFF	OFF	ON	855	755				See note 4					
	OFF	ON	OFF	1060	985	875	800	700		S	See note 4	4		
	OFF	ON	ON	1250	1180	1095	1025	925	860	775	715	See r	note 4	
	ON	OFF	OFF	1445	1380	1320	1235	1175	1100	1035	955	900	825	
	ON	OFF	ON	1685	1630	1560	1505	1445	1375	1320	1265	1195	114	
	ON	ON	OFF	2055	2000	1950	1900	1840	1790	1740	1675	1625	156	
	ON	ON	ON	2465	2415	2365	2305	2230	2140	2045	1925	1805	165	
	Maxin	num Clg Ai	rflow <sup>2</sup>	2465	2415	2365	2305	2230	2140	2045	1925	1805	165	
	High	n Heat Airfl	ow <sup>3</sup>	2105	2055	2005	1955	1895	1850	1795	1735	1665	158	
	Low	/ Heat Airfl	ow <sup>3</sup>	1740	1685	1620	1560	1505	1440	1385	1325	1260	120	
Unit Size		Switch S		External Static Pressure (ESP)										
	SW2-8	SW2-7	SW2-6	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
066135													·	
	OFF	OFF	OFF	2040	1985	1930	1880	1830	1775	1715	1660	1595	151	
	OFF	OFF	ON	850	740				See note 4					
	OFF	ON	OFF	1040	960	865	755	See note 4						
	OFF	ON	ON	1245	1170	1080	1005	920 835 750 See note 4			4			
	ON	OFF	OFF	1450	1385	1305	1245	1180	1085	1015	935	880	805	
	ON	OFF	ON	1670	1605	1540	1480	1425	1350	1280	1220	1135	107	
	ON	ON	OFF	2040	1985	1930	1880	1830	1775	1715	1660	1595	151	
	ON	ON	ON	2520	2455	2405	2350	2290	2195	2090	1965	1815	161	
	Maxin	num Clg Ai	rflow <sup>2</sup>	2520	2455	2405	2350	2290	2195	2090	1965	1815	161	
	Maximum Clg Airflow <sup>2</sup> High Heat Airflow <sup>3</sup>					a / = a		00.45	4005	4005	4055	4745	400	
	High	n Heat Airfl	OW <sup>3</sup>	2260	2205	2150	2100	2045	1985	1925	1855	1745	160	

## AIR DELIVERY—CFM (With Filter)\* (Continued)

1. Nominal 350 CFM/ton cooling airflow is delivered with SW1-5 and SW2-2 set to OFF.

Set both SW1-5 and SW2-2 to ON for +7% airflow (nominal 370 CFM/ton).

Set SW1-5 to ON and SW2-2 to OFF for +15% airflow (nominal 400 CFM/ton).

Set SW2-2 to ON and SW1-5 to OFF for -7% airflow (nominal 325 CFM/ton).

2. Maximum cooling airflow is achieved when switches SW2-6, SW2-7, SW2-8 and SW1-5 are set to ON, and SW2-2 is set to OFF.

3. All heating CFM's are when low heat rise adjustment switch (SW1-3) and comfort/efficiency adjustment switch (SW1-4) are both set to OFF

4. Ductwork must be sized for high-heating CFM within the operational range of ESP. Operation within the blank areas of the chart is not recommended because high-heat operation will be above 1.0 ESP.

5. All airflows on 21" casing size furnaces are 5% less on side return only installations.

6. Side returns for 24.5" casing sizes require two sides, or side and bottom, to allow sufficient airflow at the return of the furnace.

# **GUIDE SPECIFICATIONS**

# Gas Furnace PG8JVB General

## SYSTEM DESCRIPTION

Furnish a \_\_\_\_\_\_ fixed capacity gas-fired furnace for use with natural gas or propane (factory authorized conversion kit required for propane); furnish cold air return plenum.

## **QUALITY ASSURANCE**

Unit will be designed, tested and constructed to the current ANSI Z 21.47/CSA 2.3 design standard for gas-fired central furnaces.

Unit will be 3rd party certified by CSA to the current ANSI Z 21.47/CSA 2.3 design standard for gas-fired central furnaces.

Unit will carry the CSA Blue Star® label.

Unit efficiency testing will be performed per the current DOE test procedure as listed in the Federal Register.

Unit will be certified for capacity and efficiency and listed in the latest AHRI Consumer's Directory of Certified Efficiency Ratings.

Unit shall carry the current Federal Trade Commission Energy Guide efficiency label.

### **DELIVERY, STORAGE AND HANDLING**

Unit shall be shipped as single package only and is stored and handled per unit manufacturer's recommendations.

#### WARRANTY (for inclusion by specifying engineer)

U.S. only. Warranty certificate available upon request.

#### Products

#### **EQUIPMENT**

Components shall include: slow-opening gas valve to reduce ignition noise, regulate gas flow, with electric switch gas shut-off; flame proving sensor, hot surface igniter, pressure switch assembly, flame rollout switch, blower and inducer assembly, 40va transformer; low-voltage (heating) (heating/cooling) thermostat.

#### **Blower Wheel and Blower Motor**

Galvanized blower wheel shall be centrifugal type, statically and dynamically balanced. Blower motor of ECM type shall be permanently lubricated with sealed bearings, of \_\_\_\_\_hp, and shall be multiple-speed direct drive. Blower motor shall be soft mounted to the blower scroll to reduce vibration transmission.

#### <u>Filters</u>

Furnace may have reusable-type filters. Filter shall be \_\_\_\_\_ in. (mm) (x) in. (mm).

#### Casing

Casing shall be of .030 in. (.76 mm) thickness minimum, pre-painted steel.

#### Inducer Motor

Inducer motor shall be soft mounted to reduce vibration transmission.

### **Draft Safeguard Switch**

Draft Safeguard Switch (blocked vent safeguard) shall be factory installed to reduce the possibility of vent gas infiltration due to a blocked or restricted vent pipe.

#### Heat Exchangers

Heat exchangers shall be a 4-Pass 20 gage aluminized steel of fold-and-crimp sectional design when applied operating under negative pressure.

#### **Controls**

Control shall include a micro-processor based integrated electronic control board with at least 11 service troubleshooting codes displayed via enhanced flashing LED diagnostic light on the control, a self-test feature that checks all major functions of the furnace within one minute, and a replaceable automotive-type circuit protection fuse. Multiple operational settings available including, separate blower speeds for low heat, high heat, low cooling, high cooling and continuous fan. Continuous fan speed may be adjusted from the thermostat. Cooling airflow will be selectable between 350 or 400 CFM per ton of air conditioning. Features will also include temporary reduced airflow in the cooling mode for improved dehumidification when a Thermidistat<sup>®</sup> is selected as the thermostat.

## **OPERATING CHARACTERISTICS**

Heating Capacity shall be	Btuh input; Btuh
output capacity.	
Fuel Gas Efficiency shall be $80\%$ AF	UE.
Air delivery shall be	CFM minimum at 0.50 In.
W.C. external static pressure.	
Dimensions shall be depth	in (mm) width

Dimensions shall be: depth \_\_\_\_\_\_ in. (mm); wiuin \_\_\_\_\_\_ in. (mm); height \_\_\_\_\_\_ in. (mm) (casing only). Height shall be \_\_\_\_\_\_ in. (mm) with A/C coil and in. (mm)overall with plenum.

### **ELECTRICAL REQUIREMENTS**

Electrical supply shall be 115 volts, 60 Hz, single-phase (nominal). Minimum wire size shall be\_\_\_\_\_\_AWG; maximum fuse size or circuit breaker shall be \_\_\_\_\_\_Amps.

## SPECIAL FEATURES

Refer to section of the product data sheet identifying accessories and descriptions for specific features and available enhancements.

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Manufacturer reserves the right to change, at any time, specifications and designs without notice and without obligations.