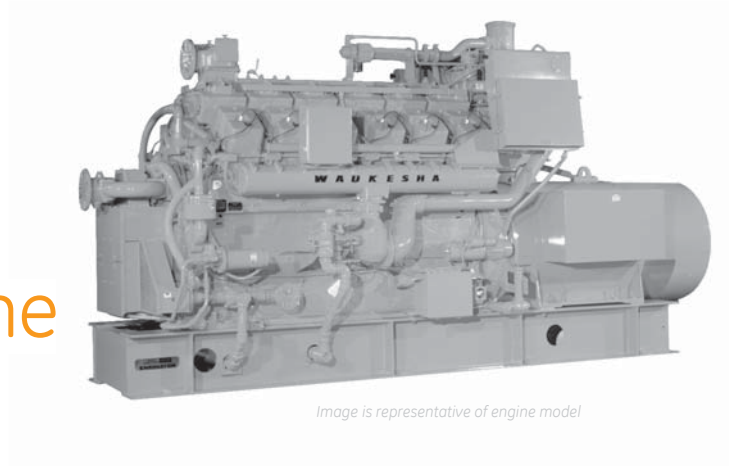


# Waukesha\* gas engine VHP\* Series Enginator\* generating system VHP7100GL

845 - 1210 kW



*Image is representative of engine model*

GE's Waukesha VHP generator sets are built for efficiency, durability and longevity providing reliable power for continuous and intermittent power applications.

Reliable 12 cylinder VHP generator sets, rated at 500-1100 kWe at 50 Hz (1000 rpm) continuous duty to 1200 kWe at 60 Hz (1200 rpm) intermittent duty, are ideal for remote sites.

## technical data

Waukesha engine	L7042GL, four cycle, overhead valve
Cylinders	V12
Piston displacement	7040 cu. in. (115 L)
Compression ratio	10.5:1
Bore & stroke	9.375" x 8.5" (238 x 216 mm)
Jacket water system capacity	100 gal. (379 L)
Lube oil capacity	190 gal. (719 L)
Starting system	24V electric
Fuel LHV	900 Btu/ft <sup>3</sup> (33.5 J/cm <sup>3</sup> )

### Dimensions l x w x h inch (mm)

Heat exchanger	235 (5970) x 85 (2160) x 103 (2620)
Water connection	205 (5208) x 85 (2160) x 103 (2620)
Radiator	260 (6600) x 124 (3150) x 160 (4060)

### Weights lb (kg)

Heat exchanger	40000 (18140)
Water connection	38000 (17230)
Radiator	46000 (20860)



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# performance data

		Continuous Power		Standby Power	
		60 Hz 1200 RPM	50 Hz 1000 RPM	60 Hz 1200 RPM	50 Hz 1000 RPM
Intercooler Water Temperature 85°F (29°C)					
	Power kW (heat exchanger cooling)	1100	920	1210	1015
	BSFC (LHV) Btu/bhp-hr (kJ/kWh)	7295 (10323)	6959 (9847)	7222 (10216)	6880 (9729)
	Fuel Consumption Btu/hr x 1000 (kW)	11271 (3303)	9005 (2640)	12269 (3596)	9824 (2878)
Heat Balance	Heat to Jacket Water Btu/hr x 1000 (kW)	2660 (780)	2180 (639)	2840 (832)	2340 (686)
	Heat to Lube Oil Btu/hr x 1000 (kW)	450 (132)	370 (108)	460 (135)	390 (114)
	Heat to Intercooler Btu/hr x 1000 (kW)	760 (223)	530 (155)	840 (246)	620 (182)
	Heat to Radiation Btu/hr x 1000 (kW)	350 (103)	330 (97)	360 (106)	330 (97)
	Total Exhaust Heat Btu/hr x 1000 (kW)	2918 (855)	2158 (632)	3446 (1010)	2541 (745)
Intake/Exhaust System	Induction Air Flow scfm (Nm <sup>3</sup> /hr)	3700 (5950)	2960 (4760)	4030 (6480)	3230 (5194)
	Exhaust Flow lb/hr (kg/hr)	16450 (7462)	13140 (5960)	17910 (8124)	14340 (6505)
	Exhaust Temperature °F (°C)	790 (421)	740 (393)	800 (427)	740 (393)

## Intercooler Water Temperature 130°F (54°C)

	Power kW (water connection cooling)	1050	875	1155	965
	Power kW (radiator cooling)	1025	845	1130	930
	BSFC (LHV) Btu/bhp-hr (kJ/kWh)	7283 (10308)	6994 (9895)	7169 (10149)	6859 (9704)
	Fuel Consumption Btu/hr x 1000 (kW)	10780 (3161)	8623 (2526)	11635 (3411)	9321 (2731)
Heat Balance	Heat to Jacket Water Btu/hr x 1000 (kW)	2834 (830)	2251 (660)	3010 (882)	2400 (703)
	Heat to Lube Oil Btu/hr x 1000 (kW)	432 (127)	342 (100)	449 (132)	358 (105)
	Heat to Intercooler Btu/hr x 1000 (kW)	547 (160)	372 (109)	616 (180)	452 (132)
	Heat to Radiation Btu/hr x 1000 (kW)	336 (99)	315 (92)	332 (97)	308 (90)
	Total Exhaust Heat Btu/hr x 1000 (kW)	3073 (901)	2372 (695)	3370 (988)	2580 (756)
Intake/Exhaust System	Induction Air Flow scfm (Nm <sup>3</sup> /hr)	3699 (5685)	2959 (4548)	3800 (6110)	3045 (4896)
	Exhaust Flow lb/hr (kg/hr)	16050 (7281)	12838 (5824)	17200 (7802)	13825 (6271)
	Exhaust Temperature °F (°C)	710 (376)	679 (360)	719 (381)	683 (362)
	Radiator Air Flow scfm (m <sup>3</sup> /min) (radiator cooling)	100000 (2832)	85000 (2407)	97000 (2747)	86000 (2435)
Emissions	NOx g/bhp-hr (mg/Nm <sup>3</sup> @ 5% O <sub>2</sub> )	1.50 (607)	1.50 (607)	1.50 (607)	1.50 (607)
	CO g/bhp-hr (mg/Nm <sup>3</sup> @ 5% O <sub>2</sub> )	2.70 (1073)	2.70 (1073)	2.70 (1073)	2.70 (1073)
	NMHC g/bhp-hr (mg/Nm <sup>3</sup> @ 5% O <sub>2</sub> )	1.00 (405)	1.00 (405)	1.00 (405)	1.00 (405)
	THC g/bhp-hr (mg/Nm <sup>3</sup> @ 5% O <sub>2</sub> )	5.50 (2227)	5.50 (2227)	5.50 (2227)	5.50 (2227)

**Rating Standard:** The Waukesha Enginotor ratings are based on ISO 3046/1-1995 with an engine mechanical efficiency of 90% and auxiliary water temperature T<sub>cr</sub> as specified limited to ±10°F (±5°C). Ratings also valid for ISO 8528 and DIN 6271, BS 5514 standard atmospheric conditions.

**Continuous Power Rating:** The highest electrical power output of the Enginotor available for an unlimited number of hours per year, less maintenance. It is permissible to operate the Enginotor with up to 10% overload for two hours in each 24 hour period.

**Standby Power Rating:** This rating applies to those systems used as a secondary source of electrical power. This rating is the electrical power output of the Enginotor (no overload) 24 hours a day, for the duration of a power source outage.

All data according to full load and subject to technical development and modification.

Consult your local GE Power & Water's representative for system application assistance. The manufacturer reserves the right to change or modify without notice, the design or equipment specifications as herein set forth without incurring any obligation either with respect to equipment previously sold or in the process of construction except where otherwise specifically guaranteed by the manufacturer.



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