

Waukesha* gas engine VGF* Series Enginator* generating system VGF18GSID

220 - 310 kWe

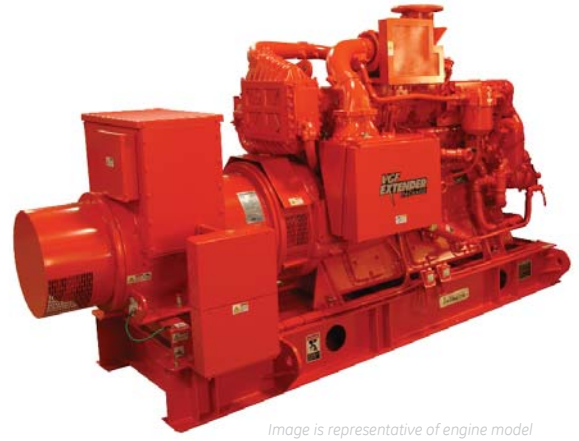


Image is representative of engine model

GE's Waukesha VGF generator sets offer a compact, fuel-flexible package delivering exceptional performance in prime power, cogeneration, peak shaving and stand-by power applications.

The VGF18 generator set is designed for standby and continuous power applications and is rated at 220-255 kWe at 50 Hz (1500 rpm) and 265-310 kWe at 60 Hz (1800 rpm).

technical data

Waukesha engine	F18GSID
Cylinders	Inline 6
Piston displacement	1096 cu. in. (18 L)
Compression ratio	8.6:1
Bore & stroke	5.98" x 6.5" (152 x 165 mm)
Jacket water system capacity	16 gal. (60 L)
Lube oil capacity	44 gal. (166 L)
Starting system	24V DC electric

Dimensions l x w x h inch (mm)

Heat exchanger	145 (3690) x 54 (1370) x 79 (2000)
Water cooler	122 (3350) x 54 (1370) x 79 (2000)
Radiator	167 (4470) x 78 (1980) x 99 (2520)

Weights lb (kg)

Heat exchanger	9400 (4270)
Water connection	8900 (4040)
Radiator	11800 (5360)



imagination at work

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performance data

		Continuous Power		Standby Power	
		60 Hz 1800 RPM	50 Hz 1500 RPM	60 Hz 1800 RPM	50 Hz 1500 RPM
Intercooler Water Temperature 130°F (54°C)					
	Power kW (heat exchanger/water connection cooling)	280	230	310	255
	Power kW (radiator cooling)	265	220	300	240
	BSFC (LHV) Btu/bhp-hr (kJ/kWh)	7523 (10645)	7353 (10394)	7399 (10470)	7241 (10239)
	Fuel Consumption Btu/hr x 1000 (kW)	3009 (882)	2463 (722)	3256 (955)	2643 (774)
Emissions	NOx g/bhp-hr (mg/Nm ³ @ 5% O ₂)	16.00 (5926)	16.00 (5926)	16.00 (5926)	16.00 (5926)
	CO g/bhp-hr (mg/Nm ³ @ 5% O ₂)	8.00 (2963)	8.00 (2963)	8.00 (2963)	8.00 (2963)
	NMHC g/bhp-hr (mg/Nm ³ @ 5% O ₂)	0.25 (93)	0.25 (93)	0.25 (93)	0.25 (93)
	THC g/bhp-hr (mg/Nm ³ @ 5% O ₂)	1.50 (556)	1.50 (556)	1.50 (556)	1.50 (556)
Heat Balance	Heat to Jacket Water Btu/hr x 1000 (kW)	901 (264)	748 (219)	958 (281)	793 (232)
	Heat to Lube Oil Btu/hr x 1000 (kW)	166 (49)	125 (37)	171 (50)	130 (38)
	Heat to Intercooler Btu/hr x 1000 (kW)	64 (19)	43 (13)	75 (22)	51 (15)
	Heat to Radiation Btu/hr x 1000 (kW)	112 (33)	104 (31)	107 (31)	99 (29)
	Total Exhaust Heat Btu/hr x 1000 (kW)	805 (236)	637 (187)	881 (258)	692 (203)
Intake/Exhaust System	Induction Air Flow scfm (Nm ³ /hr)	590 (907)	483 (743)	600 (924)	490 (754)
	Exhaust Flow lb/hr (kg/hr)	2627 (1192)	2151 (976)	2805 (1272)	2290 (1037)
	Exhaust Temperature °F (°C)	1116 (602)	1076 (580)	1118 (603)	1078 (581)
	Radiator Air Flow scfm (m ³ /min) (radiator cooling)	41250 (1168)	36000 (1019)	41250 (1168)	36000 (1019)

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_{cr} 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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