

VGF18SE

Enginator® generating system

220 - 310 kWe

Technical Data

Engine	F18SE
Cylinders	Inline 6
Piston displacement	1,096 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
Fuel Pressure Range	1.5 - 5 psi (10-32 kPA)

Dimensions l x w x h inch (mm)

Water connection
145 (3,683) x 62 (1,570) x 84 (2,135)
Radiator
200 (5,068) x 78 (1,978) x 99 (2,502)

Weights lb (kg)

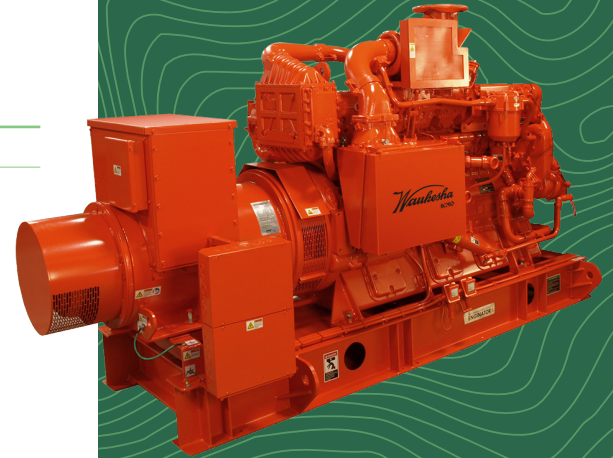
Water connection 9,900 (4,491)
Radiator 13,600 (6,169)

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

The VGF18SE 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). The Enginator includes a Waukesha engine coupled to a generator and mounted on a common skid. There is an option for either water connections at the engine outlet flanges or Waukesha can also provide a mounted radiator. This would include all water connections and an engine driven fan. The radiator fan is a pusher type, drawing air first across the engine and then pushing

it through the radiator. This configuration is rated to operate in ambient temperatures up to 100°F (38°C).

This generator set features the updated VGF F18SE engine. The SE family of VGF engines with ESM® features the most advanced and comprehensive control capability in its class. Multiple options for AFR control, Waukesha catalysts, and NOx ratings are available. Waukesha also offers the emPact Emission Control System for non-EPA certified emission solutions.



A POWERFUL FUTURE

Waukesha

VGF18SE

Performance Data

Intercooler Water Temperature 130°F (54°C)		Continuous Power		Standby Power	
		60 Hz 1800 RPM	50 Hz 1500 RPM	60 Hz 1800 RPM	50 Hz 1500 RPM
	Power kW (water connection cooling)	280	230	310	255
	Power kW (radiator cooling)	265	220	300	240
	BSFC (LHV) Btu/bhp-hr (kJ/kWh)	7,834 (11,083)	7,717 (10,918)	7,746 (10,958)	7,627 (10,790)
	Fuel Consumption Btu/hr x 1000 (kW)	3,134 (917)	2,562 (752)	3,393 (995)	2,784 (815)
Emissions	NOx g/bhp-hr (mg/Nm ³ @ 5% O ₂)	12.8 (4,749)	12.4 (4,583)	12.1 (4,479)	11.8 (4,354)
	CO g/bhp-hr (mg/Nm ³ @ 5% O ₂)	9.3 (3,430)	8.2 (3,037)	10.3 (3,827)	9.3 (3,447)
	NMHC g/bhp-hr (mg/Nm ³ @ 5% O ₂)	0.17 (64)	0.20 (75)	0.17 (65)	0.20 (76)
	THC g/bhp-hr (mg/Nm ³ @ 5% O ₂)	1.1 (425)	1.3 (497)	1.1 (432)	1.3 (504)
Heat Balance	Heat to Jacket Water Btu/hr x 1000 (kW)	922 (270)	787 (231)	976 (286)	831 (243)
	Heat to Lube Oil Btu/hr x 1000 (kW)	146 (43)	118 (35)	150 (44)	122 (36)
	Heat to Intercooler Btu/hr x 1000 (kW)	86 (25)	60 (17)	108 (32)	79 (23)
	Heat to Radiation Btu/hr x 1000 (kW)	162 (48)	145 (42)	164 (48)	148 (43)
	Total Exhaust Heat Btu/hr x 1000 (kW)	861 (252)	658 (193)	948 (278)	731 (214)
Intake/Exhaust System	Induction Air Flow scfm (Nm ³ /hr)	615 (926)	503 (758)	666 (1003)	547 (824)
	Exhaust Flow lb/hr (kg/hr)	2,691 (1,221)	1,542 (998)	2,917 (1,323)	1,688 (1,085)
	Exhaust Temperature °F (°C)	1,176 (636)	1,116 (602)	1,181 (638)	1,127 (608)
	Radiator Air Flow scfm (m ³ /min) (radiator cooling)	41,250 (1,168)	40,000 (1,133)	41,250 (1,168)	40,000 (1,133)

Rating Standard: The Waukesha Enginator ratings are based on ISO 3046/1-1995 with an engine mechanical efficiency of 90% and auxiliary water temperature T_{cra} 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 Enginator available for an unlimited number of hours per year, less maintenance. It is permissible to operate the Enginator 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 Enginator (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 Waukesha 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.

Waukesha – an INNIO brand - INNIO's Waukesha engines are at the forefront of the energy transition, providing reliable and compliant energy solutions for distributed gas compression and power generation applications. The brand's rich and lean-burn engines, ranging from 335 hp to 5,000 hp, set an industry standard for low emissions, high reliability, and fuel flexibility.

Waukesha products are continuously upgraded to help operators stay emission-compliant without sacrificing operational excellence. These upgrades include new and remanufactured engines and parts, as well as conversion and modification kits, all of which are backed by OEM warranty and more than 115 years of engine expertise. Additionally, our Waukesha digital solutions include a collaborative solution with Detection Technologies for gas compression applications and INNIO's myPlant platform for power generation applications. Both solutions provide customers with enhanced monitoring and optimization capabilities, resulting in improved performance and reduced downtime.

We connect locally with our customers to enable a rapid response to their service needs, providing enhanced support through our broad network of distributors and solution providers with parts, services, and digital offerings.

Waukesha engines are engineered in Waukesha, Wisconsin, U.S., and manufactured in Welland, Ontario, Canada. To learn more about the company's products and services, please visit INNIO's website at www.waukeshaengine.com or follow Waukesha engines on [LinkedIn](https://www.linkedin.com/company/waukeshaengine).

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