

# VGF48SE

## Enginator With ESM<sup>®</sup> 2 and emPact Emissions Control System

755 - 1,050 kW

### Technical Data

Cylinders	V16
Frequency	60 Hz
Output Voltage	480V or 4,160V
Speed	1,800 rpm
Piston displacement	2,924 cu. in. (48 L)
Compression ratio	8.6:1
Bore & stroke	5.98" x 6.5" (152 x 165 mm)
Jacket water system capacity	58 gal. (219 L)
Lube oil capacity	113 gal. (428 L)
Fuel Pressure Range	1.5 - 5.0 psi (0.1 - 0.34 bar)
Starting system	150 psi max. air/gas 24V DC electric
Emissions	U.S. EPA Emergency Stationary Certified (optional)

The VGF48SE Enginator is the latest addition to the SE family of VGF Enginators featuring a 1MWe standby rating (ISO 8528-1) with advanced ESM 2/AFR2 controls offering more power, faster start time, industry leading reliability and lower emissions. The VGF48SE is ideally suited for industrial, commercial, and oilfield applications where standby or backup power is needed. This 100% gas powered generator set can be used as a stand alone unit, in parallel with multiple units, or for utility paralleling applications. Reliability and performance improvements have been integrated

Dimensions l x w x h inch (mm)
183 (4,649) x 63.3 (1,608) x 98.8 (2,509)

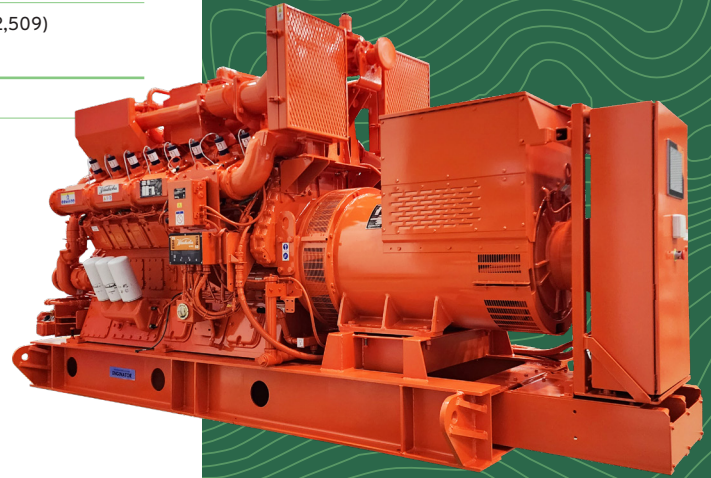
Weights lb (kg)
24,700 lbs (11,200 kg)

into the turbocharger and wastegate, oil filtration and cooling systems, crankcase breather, and cylinder heads.

The SE family of VGF Enginators feature the most advanced and comprehensive control capability.

### Product Features:

- Advanced ESM 2/AFR2 Controls
- Touchscreen HMI
- Closed crankcase breather
- Spin on oil filters
- Skid-mounted control panel
- Optional skid-mounted radiator
- Ready to connect with myPlant remote monitoring
- Optional emPact emissions control system (U.S. EPA Emergency Stationary Certified)



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# VGF48SE

## Performance Data

Intercooler Water Temperature 130°F (54°C)		Standby Power 60 Hz 1,800 RPM
	Power kW <sub>e</sub> (water connection cooling)	1,050
	Power kW <sub>e</sub> (radiator cooling)	1,005
	BSFC (LHV) Btu/bhp-hr (kJ/kWh)	11,038 (11,645)
	Fuel Consumption Btu/hr x 1000 (kW)	16,261 (12,809)
Engine-Out Emissions	NO <sub>x</sub> g/bhp-hr (mg/Nm <sup>3</sup> @ 5% O <sub>2</sub> )	10.4 (3,859)
	CO g/bhp-hr (mg/Nm <sup>3</sup> @ 5% O <sub>2</sub> )	10.4 (3,865)
	NMHC g/bhp-hr (mg/Nm <sup>3</sup> @ 5% O <sub>2</sub> )	0.092 (34)
	THC g/bhp-hr (mg/Nm <sup>3</sup> @ 5% O <sub>2</sub> )	0.9 (342)
Heat Balance	Heat to Jacket Water Btu/hr x 1000 (kW)	3,527 (1034)
	Heat to Lube Oil Btu/hr x 1000 (kW)	384 (112)
	Heat to Intercooler Btu/hr x 1000 (kW)	612 (179)
	Heat to Radiation Btu/hr x 1000 (kW)	165 (48)
	Total Exhaust Heat Btu/hr x 1000 (kW)	3,339 (979)
Intake/Exhaust System	Induction Air Flow scfm (Nm <sup>3</sup> /hr)	2,163 (3,258)
	Exhaust Flow lb/hr (kg/hr)	10,056 (4,561)
	Exhaust Temperature °F (°C)	1,176 (636)
Cooling Water Flow	Jacket Water gpm (l/m)	337 (1,277)
	Auxiliary Water gpm (l/m)	87 (329)

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.

In accordance with ISO 8528, the Rating for Emergency Standby Power (ESP) is defined as follows: The maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 hours of operation per year with maintenance intervals and procedures being carried out as prescribed by the manufactures. The permissible average power output over 24 hours of operation shall not exceed 70% of the ESP rating.

**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](http://www.waukeshaengine.com) or follow Waukesha engines on [LinkedIn](https://www.linkedin.com/company/waukeshaengine).

IWK-123078-EN

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