



16V 275GL+ with ESM2

Gas Engine

Constant Torque Ratings

5000 bhp (3728 kWb) @ 1000 rpm

Technical Data

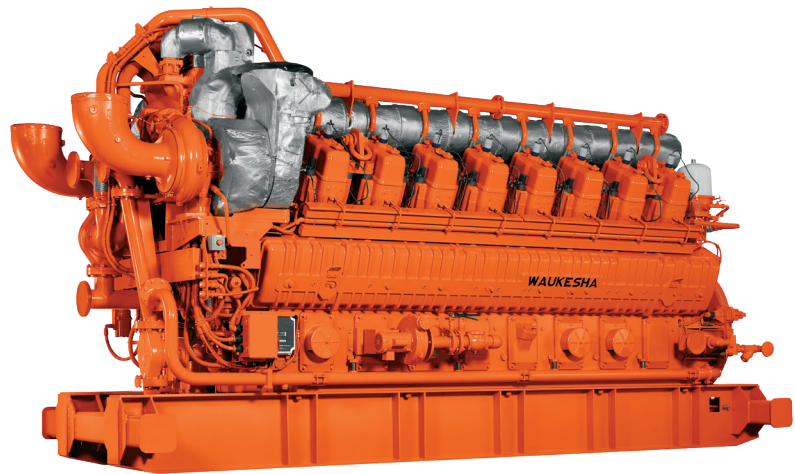
Cylinders	16V
Piston displacement	17398 cu. in. (285 L)
Compression ratio	8:1
Bore & stroke	10.83" x 11.81" (275 x 300 mm)
Jacket water system capacity	133 gal. (503 L)
Lube oil capacity	275 gal. (1040 L)
Fuel pressure range	45 – 60 psi (3.1 – 4.1 bar)
Starting system	150 psi (10.3 bar)

Dimensions l x w x h inch (mm)

237.4 (6026) x 91.3 (2320) x 126.4" (3211)

Weights lb (kg)

65,320 (29,624)



INNIO's Waukesha 275GL+ with ESM2 represents the most advanced generation of high-horsepower engines designed for optimum performance in gas compression and other mechanical drive applications. A unique combination of robust construction and innovative technology, the 275GL+ with ESM2 lean-burn engine delivers fuel flexibility, efficiency, power output and emissions for unmatched performance.

The 275GL+ features Waukesha's ESM2 control, which integrates engine functionality into a single, closed-loop system with direct NOx measurement.

Key components such as the oil filters, oil cooler, pre-lube pump, and jacket water and auxiliary thermostats have been mounted on the engine, simplifying the packaging process and skid layout.

Technical Features

Feature	Description	Advantages
Excellent fuel efficiency	Optimized to achieve excellent fuel efficiency while running on a wide variety of field gasses and load profiles.	Minimize fuel costs and maximize profits across the entire range of speed and load combinations.
Single, closed-loop engine control system	Waukesha's proven ESM2 control integrates the following into a single, closed-loop system: <ul style="list-style-type: none"> • Air/Fuel Ratio Control • Wastegate Control • Turbocharger Bypass Control • Ignition Timing • Knock Detection • Fault Monitoring 	Directly measures NOx emissions and automatically adjusts operating parameters to maintain desired NOx setting.
Best-in-class fuel flexibility	More power on more fuels, including full-load down to 600 Btu/ft ³ and operation up to 2300 Btu/ft ³	More power on more fuels means more profits without the additional costs associated with fuel treatment skids.
High reliability with long maintenance intervals	Achieves up to 40,000 hours before top-end overhaul and 80,000 hours before bottom end.	With low lifecycle costs and the ability to run up to 5 years continuously before overhaul, the 275GL+ is the best choice for the most remote, rugged, and demanding applications.

Performance Data

Intercooler Water Temperature 130°F (54°C)		1000 RPM	
		0.3 NOx	0.5 NOx
Emissions	Power bhp (kWb)	5,000 (3,728)	
	BSFC (LHV) Btu/bhp-hr (kJ/kWh)	6,790 (9,605)	6,710 (9,491)
	WkI* (before derate)	45	45
	Altitude (before derate) ft (m)	4,000 (1,219)	6,000 (1,828)
	NOx g/bhp-hr (mg/Nm ³ @ 5% O ₂)	0.3 (140)	0.5 (230)
	CO g/bhp-hr (mg/Nm ³ @ 5% O ₂)	2.40 (1,107)	1.61 (742)
	NMHC g/bhp-hr (mg/Nm ³ @ 5% O ₂)	0.65 (300)	0.49 (226)
	THC g/bhp-hr (mg/Nm ³ @ 5% O ₂)	5.97 (2,753)	4.48 (2,066)
	Methane g/bhp-hr (mg/Nm ³ @ 5% O ₂)	5.32 (2,453)	3.99 (1,840)

All information provided is subject to change without notice. All technical and performance data to be released via SAA - please contact Application Engineering.

Consult your local Waukesha gas engine 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.

INNIO* is a leading solutions provider of gas engines, power equipment, a digital platform and related services for power generation and gas compression at or near the point of use. With our Jenbacher* and Waukesha* product brands, INNIO pushes beyond the possible and looks boldly toward tomorrow. Our diverse portfolio of reliable, economical and sustainable industrial gas engines generates 200 kW to 10 MW of power for numerous industries globally. We can provide life cycle support to the more than 48,000 delivered gas engines worldwide. And, backed by our service network in more than 100 countries, INNIO connects with you locally for rapid response to your service needs. Headquartered in Jenbach, Austria, the business also has primary operations in Welland, Ontario, Canada, and Waukesha, Wisconsin, US.

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