



Waukesha* gas engines 275GL* 16V 275GL +

Constant Torque Ratings

4835 bhp (3605 kWb) @ 1000 rpm

4350 bhp (3244 kWb) @ 900 rpm

3625 bhp (2703 kWb) @ 750 rpm

GE's Waukesha 275GL+ 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+ lean-burn engine delivers best-in-class fuel flexibility, efficiency, power output and emissions for unmatched performance.

The 275GL+ features Waukesha's ESM* 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 data

Cylinders	V16
Piston displacement	17398 cu. in. (285 L)
Compression Ratio	9:1
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)
Starting system	150 psi (10.3 bar)
Fuel pressure	45 - 60 psi (3.1 - 4.1 bar)

Dimensions l x w x h inch (mm)

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

Weights lb (kg)

66,000 (29,835)



imagination at work

technical features

feature	description	advantages
Best-in-class fuel efficiency	1.6% fuel efficiency advantage at full speed and load; advantage increases to over 5% at partial speeds and loads	Minimize fuel costs and maximize profits across the entire range of speed and load combinations
Single, closed-loop engine control system	Waukesha's proven ESM* 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; adjusts operating parameters to prevent NOx emissions from exceeding 0.5 g/bhp-hr with no manual intervention or setup
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. The 275GL+ can achieve full load down to 60% methane and 70% load on pure ethane.
Best-in-class emissions	0.5 g NOx emissions plus lower CO and NMHC emissions make it easier to meet current emission requirements	Lower CO ₂ and methane emissions provide a smaller carbon footprint and confidence you can meet future regulations today

performance data

Intercooler Water Temperature 130°F (54°C)

		1000 RPM	900 RPM	750 RPM
	Power bhp (kWb)	4835 (3605)	4350 (3244)	3625 (2703)
	BSFC (LHV) Btu/bhp-hr (kJ/kWh)	6499 (9194)	6386 (9035)	6222 (8803)
Emissions	NOx g/bhp-hr (mg/Nm ³ @ 5% O ₂)	0.5 (230)	0.5 (230)	0.5 (230)
	CO g/bhp-hr (mg/Nm ³ @ 5% O ₂)	1.6 (746)	1.5 (681)	1.3 (607)
	NMHC g/bhp-hr (mg/Nm ³ @ 5% O ₂)	0.84 (388)	0.84 (386)	0.83 (383)
	THC g/bhp-hr (mg/Nm ³ @ 5% O ₂)	5.6 (2588)	5.6 (2574)	5.5 (2552)
	Methane g/bhp-hr (mg/Nm ³ @ 5% O ₂)	4.76 (2200)	4.76 (2188)	4.67 (2169)
	Formaldehyde g/bhp-hr (mg/Nm ³ @ 5% O ₂)	0.18 (83)	0.18 (83)	0.18 (83)
	CO ₂ g/bhp-hr (g/Nm ³ @ 5% O ₂)	398 (183)	391 (180)	381 (175)
	CO ₂ e (greenhouse gas) g/bhp-hr (g/Nm ³ @ 5% O ₂)	498 (229)	491 (226)	479 (220)
Heat Balance	Heat Rejection to Jacket Water Btu/hr*1000 (kW)	2954 (866)	2745 (805)	2365 (693)
	Heat to Lube Oil Btu/hr*1000 (kW)	1074 (315)	980 (287)	815 (239)
	Heat Rejection to Intercooler Btu/hr*1000 (kW)	3028 (887)	2688 (788)	2112 (619)
	Total Exhaust Heat Btu/hr x 1000 (kW)	12157 (3563)	10318 (3024)	7972 (2336)
	Heat to Radiation Btu/hr x 1000 (kW)	515 (151)	516 (151)	505 (148)
Intake/Exhaust System	Induction Air Flow SCFM (Nm ³ /hr)	12411 (18691)	11702 (17624)	10588 (15946)
	Exhaust Gas Flow Rate lb/hr (kg/hr)	55911 (25361)	52623 (23870)	47483 (21538)
	Exhaust Stack Temperature °F (°C)	811 (433)	727 (386)	632 (333)

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

Consult your local GE Energy'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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