

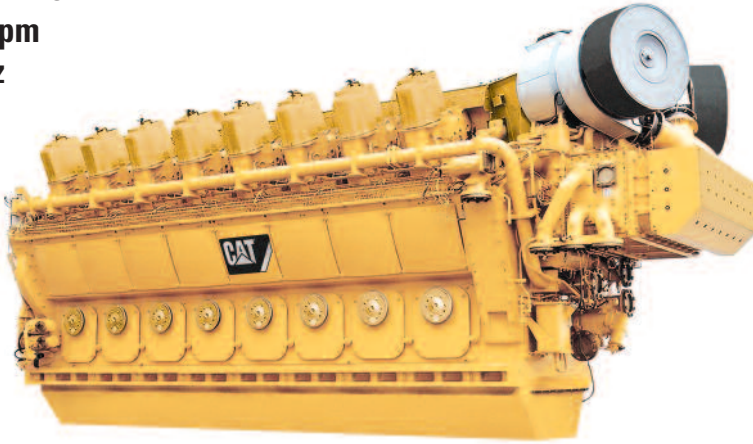
GCM34

GAS ENGINE GENERATOR SET

6520 kWe

750 rpm

50 Hz



FEATURES

Designed for Reliable Operation

- Spark ignition, lean burn combustion and pre-chamber design
- Intensive cooling of key components including spark plugs, main/pre-chamber and exhaust valve seats
- Proven Cat® electronic control system, precise fuel delivery and long stroke design result in world-class efficiency
- Robust engine platform based on proven heavy fuel engine design

Low Emissions

- Air-to-fuel ratio control, optimized pre-chamber design and Cat electronic control result in low emissions
- Configurations with NOx emissions to 500 or 250 mg/N·m³ at 5% O₂ available

Minimized Mechanical Wear

- Modular design and state-of-the-art material ensure long life of components

Overall Economy

- Cost savings include high availability, long life, low fuel and oil consumption and low maintenance requirements

Highest Quality Engine Parts

- Semi-dry wear resistant liners with calibration inserts
- Pistons with forged steel crown and aluminum skirt
- Inlet/outlet valves with armored seats
- High-efficiency turbocharger

One-Piece Dry Engine Block

- Cast from nodular cast iron with under slung crankshaft and free from cooling water

Ease of Maintenance and Reliability

- Designed to provide efficient maintenance including easily removable cylinder heads, quick removable fluid connections and split connecting rods to allow piston removal without disturbing the big end bearing
- High reliability, modular design and integral construction reduce the number of components by 40% over conventional designs

ENGINE

- Engine type: 4-stroke cycle gas engine
- Cylinder configuration: Vee - 16
- Fuel type: Natural gas
- Methane number: 80 (minimum 70)
- Bore: 340 mm (13.4 in)
- Stroke: 420 mm (16.5 in)
- Cylinder displacement: 38.1 L (2328 cu in)
- Cylinder output: 420 kW (564 bhp)
- Mean piston speed: 10.5 m/s (34.5 ft/s)
- Mean effective pressure: 17.6 bar (255 psig)
- Aspiration: Turbocharged and after-cooled
- Compression ratio: 11.4:1
- Engine rating: 6720 kW
- Generator set rating: 6520 kWe

Total Power Solutions

- Caterpillar® can develop, finance, design, build, test, maintain and operate medium speed reciprocating engine power plants, plant assets and at the customer's option provide:
 - Power generation equipment
 - Engineered systems
 - Combined heat and power systems
 - Construction and installation services
 - Operation and maintenance services
 - Turnkey power plants
 - Contract power

Worldwide Product Support

- With nearly 200 Cat dealers and 1,500 facilities worldwide serving in excess of 200 countries, you're never far from the Caterpillar support you need
- Customer Support Agreements offer back-to-back services including scheduled inspections, preventive maintenance and overhauls to full operations and maintenance

GCM34

GAS ENGINE GENERATOR SET

NOMINAL PERFORMANCE

	ENGINE RATING		GENERATOR SET RATING		SPEED	FREQUENCY	HEAT RATE		SPECIFIC LUBE OIL CONSUMPTION	
	kWm		kWe	kVA			rpm	Hz	kJ/kWh	Btu/kWh
G16CM34	6,720		6,520	8,148	750	50	7,748	7,344	0.3	0.0007

RATING DEFINITIONS AND CONDITIONS

Ratings: Based on ISO3046/1 standard reference conditions and natural gas having a methane number of 80 or higher.

Power output: May require adjustment for values other than ISO3046/1 standard reference conditions.

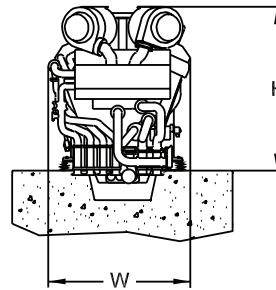
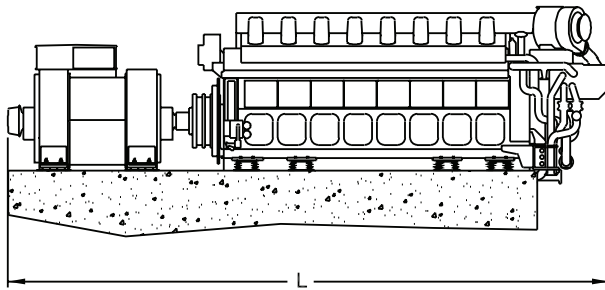
Continuous output: Available for an unlimited time without varying load.

Generator efficiency: Efficiency of 97% based on 0.8 pf with medium voltage class generator; actual efficiency will depend on generator selection.

Fuel consumption: Based on ISO3046/1 standard reference conditions of 25° C (77° F) and 100 kPa (29.61 in Hg), natural gas with methane number of 80, including engine-driven pumps and with 5% tolerance. Value based on measurement at the generator terminals.

Lube oil consumption: Tolerance on value of +/-0.15 g/kWh (0.00035-lb/kWh). Lube oil consumption can only be demonstrated after 500 hours of operation.

GENERATOR SET DIMENSIONS



FOR MORE INFORMATION
 Email: cat-powerplants@cat.com
 Internet: <http://www.cat.com/powerplants>

	GENERATOR SET DIMENSIONS						APPROXIMATE WEIGHT (DRY)			
	HEIGHT (H)		WIDTH (W)		LENGTH (L)		ENGINE		GENERATOR	
	mm	in	mm	in	mm	in	kg	lb	kg	lb
G16CM34	3,306	130	2,907	114	12,251	482	81,000	178,574	23,800	52,470