

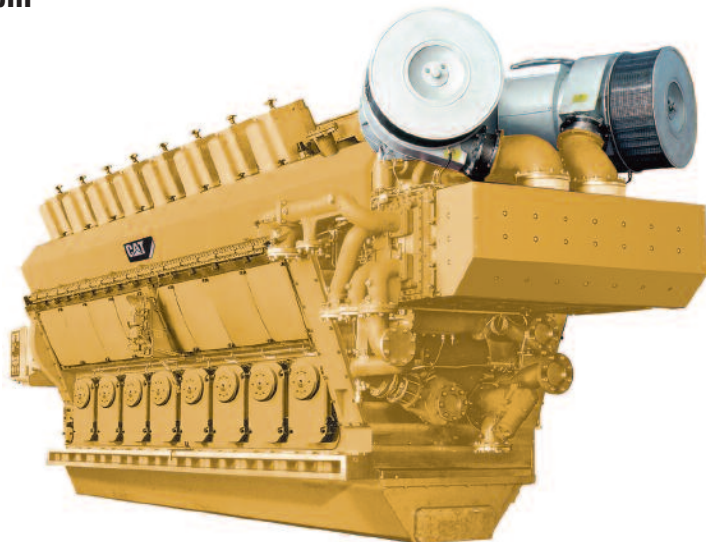
CM32

DIESEL ENGINE GENERATOR SET

5590 - 7450 kWe

750 rpm

50 Hz



FEATURES

Designed for Reliable Operation

- Intensive cooling of key components including exhaust valve seats, injector cooling integrated into lube oil system and high-efficiency turbocharger
- Capable of operation up to 700 cSt/50° C fuel quality according to CIMAC H55/K55

Minimized Mechanical Wear

- Modular design
- State-of-the-art material ensure long life of components

Overall Economy

- High availability and long life
- Low fuel and oil consumption
- 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

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

Ease of Maintenance and Reliability

- Easily removable cylinder heads, quick removable fluid connections
- 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 diesel engine
- Cylinder configuration: Vee - 12, 16
- Fuel type: LFO, CRO and HFO up to 700 cSt
- Bore: 320 mm (12.6 in)
- Stroke: 420 mm (16.5 in)
- Cylinder displacement: 33.8 L (2063 cu in)
- Cylinder output: 480 kW (644 bhp)
- Mean piston speed: 10.5 m/s (34.4 ft/s)
- Mean effective pressure: 22.7 bar (329 psig)
- Aspiration: Turbocharged and after-cooled
- Compression ratio: 14.2:1
- Engine rating: 5760–7680 kW
- Generator set rating: 5590–7450 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

CM32

DIESEL ENGINE GENERATOR SET

NOMINAL PERFORMANCE

	ENGINE RATING		GENERATOR SET RATING		SPEED	FREQUENCY	HEAT RATE		SPECIFIC LUBE OIL CONSUMPTION	
	kWm		kWe	kVA			kJ/kWh	Btu/kWh	g/kWh	lb/kWh
12CM32	5,760		5,590	6,988	750	50	7,792	7,385	0.6	0.0013
16CM32	7,680		7,450	9,312	750	50	7,792	7,385	0.6	0.0013

RATING DEFINITIONS AND CONDITIONS

Fuel type: Light fuel oil (LFO), crude oil (CRO) and heavy fuel oil (HFO) with fuel quality limit at 50° C according to CIMAC H55/K55.

Ratings: Based on ISO3046/1 standard reference conditions.

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

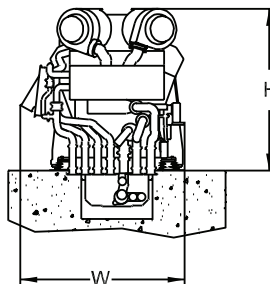
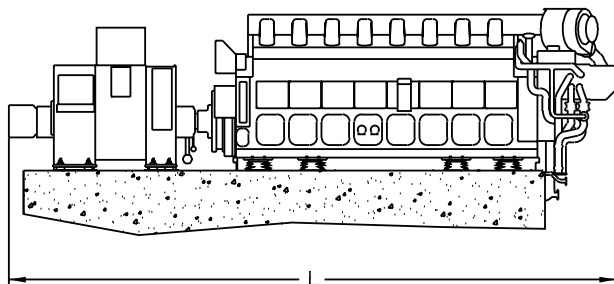
Continuous: Output available for an unlimited time without varying load.

Generator efficiency: Efficiency of 97.0% 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), excluding engine-driven pumps, with 5% tolerance and LCV = 42,700 kJ/kg (18,358 Btu/lb). Value based on measurement at the generator terminals.

Lube oil consumption: Tolerance on value of +/-0.3 g/kWh (0.0007-lb/kWh). Lube oil consumption can only be demonstrated after 500 hours of operation.

GENERATOR SET DIMENSIONS



FOR MORE INFORMATION
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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
12CM32	3,329	131	3,394	134	11,193	441	64,400	141,978	24,800	54,675
16CM32	3,329	131	3,394	134	12,646	498	81,400	179,456	38,500	84,878