

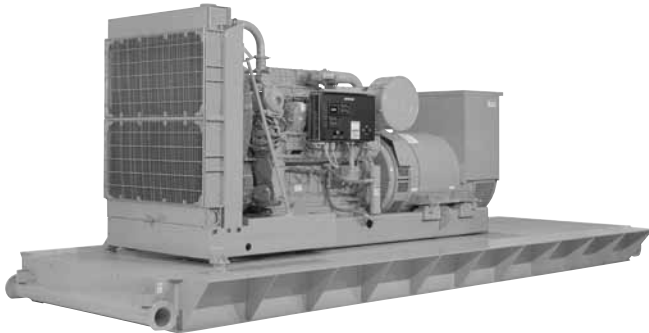


Image shown with optional attachments.

CAT® ENGINE SPECIFICATIONS

V-8, 4-Stroke-Cycle-Diesel

Emissions	Not Emissions Certified
Bore	170 mm (6.7 in.)
Stroke	190 mm (7.5 in.)
Displacement.....	34.5 L (2111 cu. in.)
Aspiration	Turbocharged-Aftercooled
Governor and Protection.....	Woodward
Engine Weight, net dry (approx)	5218 kg (11,503 lb.)
Module Weight, net dry (approx)* ..	15,352 kg (33,846 lb.)
Capacity for Liquids	
Lube Oil System (refill).....	227.1 L (60 U.S. gal.)
Cooling System (engine only).....	103 L (27.2 U.S. gal.)
Cooling System (radiator)	160 L (42.3 U.S. gal.)
Oil Change Interval.....	500 hours

*Module weight includes — inner and outer base, radiator, generator, and engine

FEATURES

Engine Design

- Proven reliability and durability
- Robust diesel strength design prolongs life and lowers owning and operating costs
- Assembled, tested, and validated as a package to minimize package vibration and maximize component life
- Market-leading power density
- Designed to perform in oilfield conditions, including high ambient high altitude applications
- Long overhaul life proven in oilfield applications
- Core engine components designed for reconditioning and reuse at overhaul

Safety

- E-Stop pushbutton on instrument panel
- Air shutoff and explosion relief valves
- Configurable alarm and shutdown features
- Extra alarm switches available for customer-supplied panel

Ease of Installation and Packaging

- Customer interface harness
- Simple engine/package wiring
- Adapters, fittings, and connectors available for cooling, air and exhaust system

Improved Serviceability

Large inspection openings allow convenient access to core engine internals

Reduction of Owning and Operating Costs

Long filter change intervals, aligned with service intervals

Custom Packaging

For any petroleum application, trust Caterpillar to meet your exact needs with a factory custom package. Cat® engines, generators, enclosures, controls, radiators, transmissions — anything your project requires — can be custom designed and matched to create a one-of-a-kind solution. Custom packages are globally supported and are covered by a one-year warranty after startup.

Full Range of Attachments

Large variety of factory installed engine attachments reduces packaging time

Testing

Every engine is full-load tested to ensure proper engine performance.

Product Support Offered Through Global Cat Dealer Network

More than 2,200 dealer outlets

Cat factory-trained dealer technicians service every aspect of your petroleum engine

Cat parts and labor warranty

Preventive maintenance agreements available for repair-before-failure options

S•O•SSM program matches your oil and coolant samples against Caterpillar set standards to determine:

- Internal engine component condition
- Presence of unwanted fluids
- Presence of combustion by-products
- Site-specific oil change interval

Over 80 Years of Engine Manufacturing Experience

Ownership of these manufacturing processes enables Caterpillar to produce high quality, dependable products.

- Cast engine blocks, heads, cylinder liners, and flywheel housings
- Machine critical components
- Assemble complete engine

Web Site

For all your petroleum power requirements, visit www.catoilandgas.cat.com.

STANDARD EQUIPMENT

Air Inlet System

Aftercooler core — corrosion resistant
Air cleaner — regular duty, with soot filter
Service indicators

Control System

Governor, Woodward EG6PC actuator — RH (controls provided by the SCR supplier)
Magnetic pickup

Cooling System

Thermostats and housing (dual outlet)
Jacket water pump — gear-driven

Exhaust System

Exhaust flexible fitting
Weldable flange
Exhaust manifolds — dry

Flywheels and Flywheel Housings

SAE No. 00
SAE standard rotation

Fuel System

Fuel filter — LH
Fuel transfer pump
Fuel return line — hard, with flexible connection
Fuel priming pump — LH

Instrumentation

Electronic instrument panel — LH, 8 hole, 7 gauge
Oil pressure
Fuel pressure
Oil filter differential pressure
Water temperature
Tachometer
Service meter
Exhaust temperature — dual

Lube System

Crankcase breather
Oil cooler
Oil filter — LH
Shallow oil pan
Oil drain extension, 2" NPT female connection

Mounting System

Oilfield base 7.85 m (25 ft 9 in) length
Heavy-duty land rig inner baseframe — three-point mount to oilfield base

Power Take-Offs

Accessory drive

Protection System

Hydra-mechanical shutoffs (low oil pressure, high water temperature and overspeed, air inlet shutoff); monitoring gauge and emergency remote shutoff
Alarm switches, low oil pressure, high water temperature (Marine Society approved) for connection to customer-supplied alarm panel
Manual shutoff control — LH

Starting System

Air starting motor — LH control
Air silencer

General

Paint — Cat yellow
Vibration damper and guard
Lifting eyes
Lift and cable tow provisions

OPTIONAL EQUIPMENT

Air Inlet System

Heavy-duty air cleaners and precleaners
Remote air inlet adapters

Charging Systems

Charging alternators

Control System

Load sharing modules
Governor conversion
2301A load sharing governors

Cooling Systems

Coolant level sensors
Connections

European Union Certifications**Exhaust System**

Elbows
Mufflers

Fuel System

Primary fuel filter

Generator

Oilfield spec twin-bearing, close-coupled
Factory aligned

Generator Attachments

Low voltage extension box
Potential transformer
Current-drop transformers
Air filter
Cable access box
Bearing temperature detectors

Instrumentation

Customer management device
Gauges and instrument panels
Switches and contractors

Lube System

Fumes disposal
Oil pan accessories

Mounting System

Bases
Base removal

Power Take-Offs

Front stub shaft
Pulleys

Protection System

Explosion relief valve
Shutoffs
Switches and contractors

Starting System

Air pressure regulator
Starting aids

General

Engineering bearing group
Tool set

GENERATOR DATA

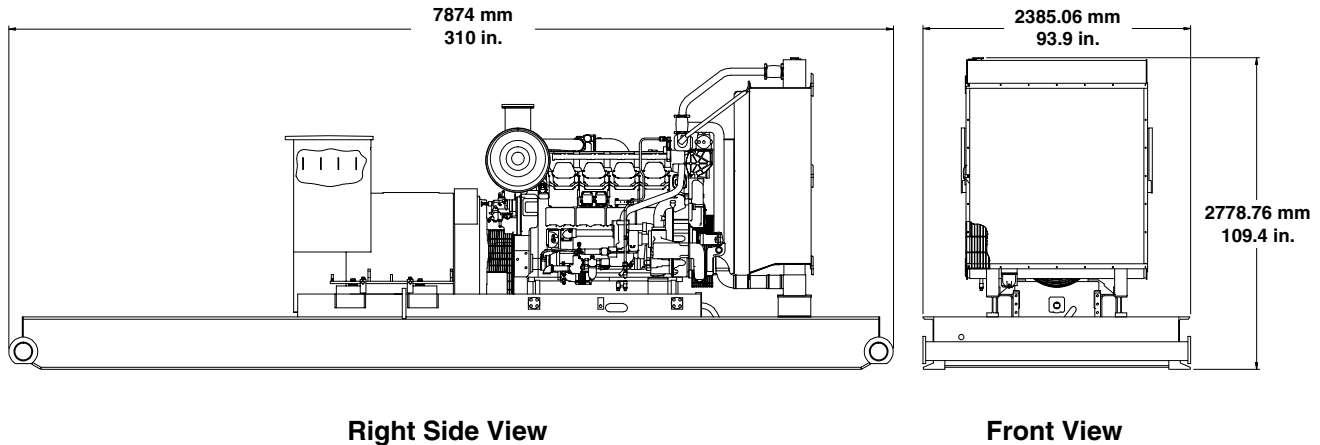
60 Hz — Standard

ekW / kVA.....	700 / 1000	Voltage	600
rpm.....	1200	Voltage Regulator	Optional
Rated pf.....	0.7	Configuration	2 bearing free standing
Temperature Rise.....	80°C @ 40°C ambient	Coastal Protection	Yes
Insulation Class.....	H	Space Heater	Included
Overload	50% / 2 min	Construction	Form wound
Excitation	Permanent magnet	Frame Size	862

ALTITUDE CAPABILITY

Altitude Capability Data (corrected power altitude capability)									
Ambient Operating Temp. (°F)	Altitude (feet)								
	10,499	9843	8202	6562	4921	3281	1640	984	0
50	685	704	750	798	849	860	860	860	860
68	662	680	724	771	819	860	860	860	860
86	641	657	700	746	793	842	860	860	860
104	620	636	677	721	767	815	860	860	860
122	601	617	657	699	743	790	839	860	860
Normal	687	701	739	778	818	860	860	860	860

LAND ELECTRIC DRILLING MODULE



Module Dimensions		
Length	7874 mm	310 in.
Width	2385.06 mm	93.9 in.
Height	2778.76 mm	109.4 in.
Engine Weight (dry)	5218 kg	11,503 lb.
Module Weight (dry)*	15,352 kg	33,846 lb.

Note: Do not use for installation design.
See general dimension drawings for detail.
(Drawing #205-2346)

*Module weight includes — inner and outer base, radiator, generator, and engine

RATING DEFINITIONS AND CONDITIONS

Ratings are based on SAE J1995 standard conditions of 100 kPa (29.61 in Hg) and 25° C (77° F). These ratings also apply at ISO3046/1, DIN6271, and BS5514 standard conditions of 100 kPa (29.61 in Hg), 27° C (81° F), and 60% relative humidity. Ratings are valid for air cleaner inlet temperatures up to and including 50° C (122° F).

Fuel consumption has a tolerance of +5% and is based on fuel oil of 35° API [16° C (60° F)] gravity having an LHV of 42 780 kJ/kg (18 390 Btu/lb) when used at 29° C (85° F) and weighing 838.9 g/liter (7.001 lbs/U.S. gal). Fuel consumption shown with all oil, fuel, and water pumps, engine driven.

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