



G3512 DRILLING GENSET

1000 ekW

1800 rpm

1.0 g/bhp-hr NOx (NTE)

SPECIFICATIONS

V-12, 4 -Stroke-Cycle

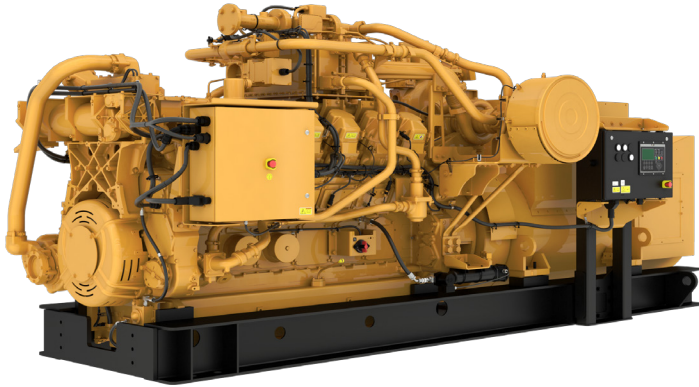
Bore.....170 mm (6.7 in)

Stroke.....190 mm (7.5 in)

Displacement.....52 L (3173 cu. in)

Aspiration.....Turbocharged-2 stage after cooled

Governor and Protection..... Electronic (ADEM™4)



Actual configuration may vary from displayed imaged.

FEATURES AND BENEFITS

Genset Design

- Meets U.S. EPA Large SI Tier 2.*
- Genset designed to be paired with the Cat® energy storage system for a complete drilling factory solution
- Engine design built on the G3500 platform with proven reliability and durability
- EMCP 4.4 shipped standard
- Jacket water and lube oil heaters shipped standard
- Rugged package base designed for oil fields

Emissions

- Lean air/fuel mixture provides best available emissions and fuel efficiency for engines of this bore size

Advanced Digital Engine Management

ADEM™4 (A4) engine management system integrates speed control, air/fuel ratio control, and ignition/detonation controls into a complete engine management system. The ADEM™4 (A4) has an improved: user interface, display system, shutdown controls, and system diagnostics.

Full Range of Attachments

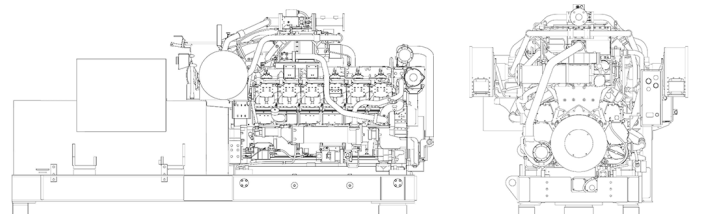
Large variety of factory-installed package attachments reduces packaging time.

Testing

Every genset is full-load tested to ensure proper package performance.

* Not for sale in California.

DIMENSIONS



Length	4979.3 mm	196.0 in
Width	2154.4 mm	84.8 in
Height	2277.1 mm	89.6 in

Note: Do not use for installation design. See general dimension drawings for detail. Dimensions are dependent on generator and any options selected.

Full listing of equipment (standard and optional), along with additional features and benefits can be found at www.cat.com/oilandgas or through your local dealer.

TECHNICAL DATA

Performance	Standby & Continuous
Frequency	60 Hz
Genset power rating @ 0.8 power factor - ekW	1000
Emissions	U.S EPA Tier 2 S.I. Non-Road Mobile
Performance Number	EM5141-01
Fuel Consumption	
100% load with fan - MJ/ekW-hr	10.53
75% load with fan - MJ/ekW-hr	11.09
50% load with fan - MJ/ekW-hr	12.71
Inlet Air	
Combustion air inlet flow rate - Nm ³ /bkW-hr	5.83
Exhaust System	
Exhaust temp true - engine outlet - °C	508
Exhaust Gas Flow - Nm ³ /bkW-hr	4.80
Exhaust Gas Mass Flow - kg/bkW-hr	6.05
Heat Rejection	
Heat rejection to jacket water - kW	427
Heat rejection to exhaust (LHV to 120°C) - kW	804
Heat rejection to atmosphere from engine and generator - kW	152

STANDARD EQUIPMENT

Air Inlet System

Air cleaner, intermediate duty, with service indicator and air filter differential pressure sensors

Cooling System

Jacket water outlet- right hand flange connection
Jacket water pump, gear driven, centrifugal, non - priming

Exhaust System

Dry exhaust manifold

Fuel System

10-35 kPag gas supply

Instrumentation

EMCP 4.4
ADEM™4

Lubrication System

Crankcase breather - top mounted
Pre-lube pump
Simplex oil filter
Standard Oil Pan

OPTIONAL EQUIPMENT

Air Inlet System

Pre-cleaners

Charging Alternator

Charging alternator 24V, 35A

Connections

Left hand flanged jacket water connection

Exhaust System

Exhaust weld flange

Fuel System

Gas train

Lubrication System

Electric pre-lube
Air pre-lube
Oil level regulator
Oil drain

Starting System

Barring group
Right hand air starter

Rating Definitions and Conditions

Engine performance is obtained in accordance with SAE J1995, ISO3046/1, BS5514/1, and DIN6271/1 standards.

Transient response data is acquired from an engine/generator combination at normal operating temperature and in accordance with ISO3046/1 standard ambient conditions. Also in accordance with SAE J1995, BS5514/1, and DIN6271/1 standard reference conditions.

Conditions: Power for gas engines is based on fuel having an LHV of 33.74 kJ/L (905 Btu/cu ft) at 101 kPa (29.91 in Hg) and 15°C (59°F). Fuel rate is based on a cubic meter at 100 kPa (29.61 in Hg) and 15.6°C (60.1°F). Air flow is based on a cubic foot at 100 kPa (29.61 in Hg) and 25°C (77°F). Exhaust flow is based on a cubic foot at 100 kPa (29.61 in Hg) and stack temperature.

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