



Generator Set Specifications

Gas Standby Rating	1000 ekW @ 0.8pf
Fuel Type	Natural Gas, Hydrogen Blend (up to 5%)
Emissions/Fuel Strategy	U.S. EPA Certified for Non-Emergency Stationary Genset
RPM	1800 rpm
Frequency	60 Hz
Compression Ratio	9.7
Displacement	52 l

Engine Specifications

Engine Model	G3512
Displacement	52 l
Aspiration	TA
Bore	170 mm
Stroke	190 mm

Generator Set Dimensions

Length	5224 mm
Width	2286 mm
Height	2525 mm
Weight	12500 kg

G3512 With FAST RESPONSE Standard Equipment

Air Inlet

Two-element single-stage air cleaner with enclosure and service indicator
Dual air cleaners, 1 per side, with service indicator

Control Panel

Cat ECS 100

Cooling System

Engine driven pumps for jacket water and separate circuit aftercooler

Cooling

Package mounted radiator
Jacket water and SCAC engine-driven pumps
Jacket water and SCAC thermostats
LH or RG connections when radiator is not selected

Exhaust

Dry exhaust manifolds, insulated and shielded
Individual exhaust port and turbocharger outlet wired to integrated temperature sensing module (ITSM) with GCEM providing alarms and shutdowns
Cat-flanged face outlet on turbocharger

Fuel

NOx sensor based air-fuel-ratio control
Pipeline Natural Gas: 800-1000 BTU/scf and 70-100 Methane Number
Gas Train: NFPA37 and CSA B149.3
0.5 to 5 psi engine fuel inlet pressure

Fuel System

Fuel system is sized for 31.5 to 47.2 MJ/NM3 dry pipeline natural gas with pressure of 10.2 to 34.5KPa to the engine fuel control valve
Engine-installed electronic control valve
Throttle plate, 24V DC actuator, controlled by GECM
24V DC energized-to-run (ETR) gas shutoff valve
Gas pressure regulator

General

Operation and maintenance manuals
Paint- Caterpillar Yellow except rails and radiators gloss black
Parts book
"Stationary Use Only" Label in Correspondence with EPA Nonroad Mobile SI rule

RH Service

Crankshaft vibration damper and guard

Lubrication

Cartridge style oil filter

Gear type lube oil pump

Starting/Charging

Jacket water heater

Battery with cables and rack (shipped loose)

Electric Starter

Batteries with rack and cables

24V DC starting motors

Generator

NEMA Class H insulation

Permanent Magnet Excitation

SR5

Anti-condensation space heater

Caterpillar's Digital Voltage Regulator (CDVR) including reactive droop capability, 3-phase voltage sensing KVAR/PF modes, RFI suppression, and a min/max exciter

Winding temperature detectors

Ignition System

Electronic Ignition System (controlled by ADEM A4)

Individual Cylinder Detonation Sensitive Timing (DST)

Governing

ADEM A4 speed governor with 4 to 20ma (0V to 5V) speed input

G3512 With FAST RESPONSE Optional Equipment

Air Inlet

Mounting brackets and piping

Air cleaner with precleaner

Control Panel

Local PC monitoring

Engine failure relay

Remote PC monitoring

Local alarm module

Remote annunciator

Cooling

Remote radiator for JW and SCAC circuits, level switch included but not wired
Inlet/Outlet connections
Coolant level drain line with valves, fan with guard

Circuit Breakers

2000A 3 Pole, UL-100% Rated Masterpact Circuit Breakers
Frame mounting
S LSI, G LSIG, P LSIG-P, 4th Digit Type
Right, left, rear mounted
1600A, 2000A 3 Pole, UL-100% Rated R-Frame Circuit Breakers
100% rated, 3-pole (UL/CSA/IEC) 5th Digit Rating
3-pole (IEC 947-2 rated)
1200A, 3 Pole, UL-100% Rated P-Frame Circuit Breakers

Exhaust

305 mm (12 in.) flange
Flexible fittings
18, 25 dBA Attenuation
305 mm (12 in.) muffler
305mm (12 in) spark arresting muffler
305 mm (12in.) elbow

Fuel System

3, 0-100 kPag, 4-20mA gas train pressure sensors

General

US AID emblem
Special paint order
Digital diagnostic tool
Tool set

Generator

Generator air filter
European bus bars
Low voltage extension box
Cable access box
Bearing temperature detectors

Starting/Charging

20A, 24VDC battery charger
24V starting motors
45A, 24V charging alternator (requires engine driven pumps)

Grid Code Compliance

60 Hz: USA