

Product Specifications For G3512 With FAST RESPONSE



Generator Set Specifications

Gas Standby Rating	750 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
Displacement	52 l

Engine Specifications

Engine Model	G3512
Displacement	52 l
Aspiration	TA
Bore	170 mm
Stroke	190 mm
Governor Type	ADEM A4

Generator Set Dimensions

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

G3512 With FAST RESPONSE Standard Equipment

Air Inlet

Dual air cleaners, 1 per side, with service indicator

Two-element single-stage air cleaner with enclosure and service indicator

Control Panel

Cat ECS 100

Cooling

Engine driven pumps for jacket water and separate circuit aftercooler

Jacket water and SCAC engine-driven pumps

Jacket water and SCAC thermostats

LH or RG connections when radiator is not selected

Package mounted radiator

Fuel

NOx sensor based air-fuel-ratio control

0.5 to 5 psi engine fuel inlet pressure

Pipeline Natural Gas: 800-1000 BTU/scf and 70-100 Methane Number

Gas Train: NFPA37 and CSA B149.3

Exhaust

Individual exhaust port and turbocharger outlet wired to integrated temperature sensing module (ITSM) with GCEM providing alarms and shutdowns

Dry exhaust manifolds, insulated and shielded

Cat-flanged face outlet on turbocharger

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

Throttle plate, 24V DC actuator, controlled by GECM

Engine-installed electronic control valve

Gas pressure regulator

24V DC energized-to-run (ETR) gas shutoff valve

General

Crankshaft vibration damper and guard

Operation and maintenance manuals

Parts book

Paint- Caterpillar Yellow except rails and radiators gloss black

RH Service

Lubrication

Gear type lube oil pump
Cartridge style oil filter

Generator

Anti-condensation space heater
Winding temperature detectors
NEMA Class H insulation
SR5
Permanent Magnet Excitation
Caterpillar's Digital Voltage Regulator (CDVR) including reactive droop capability, 3-phase voltage sensing
KVAR/PF modes, RFI suppression, and a min/max exciter

Governing System

ADEM A4

Ignition System

Individual Cylinder Detonation Sensitive Timing (DST)
Electronic Ignition System (controlled by ADEM A4)

Governing

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

Starting/Charging

24V DC starting motors
Batteries with rack and cables
Electric Starter

G3512 With FAST RESPONSE Optional Equipment

Air Inlet

Mounting brackets and piping
Air cleaner with precleaner

Circuit Breakers

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

Control Panel

Remote annunciator
Local alarm module
Local PC monitoring
Engine failure relay
Remote PC monitoring

Cooling

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

Exhaust

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

Fuel System

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

General

Special paint order
US AID emblem
Tool set
Digital diagnostic tool

Generator

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

Starting/Charging

20A, 24VDC battery charger
Battery with cables and rack
Jacket water heater
45A, 24V charging alternator (requires engine driven pumps)

Grid Code Compliance

60 Hz: USA