

Cat® G3512

Gas Generator Sets



Image shown may not reflect actual configuration

Bore – mm (in)	170 (6.7)
Stroke – mm (in)	190 (7.5)
Displacement – L (in ³)	52 (3173)
Compression Ratio	9.7
Aspiration	Turbocharged
Fuel System	Electronic Fuel Control Valve
Governor Type	ADEM™ A4

Standby 60 Hz ekW (kVA)	Emissions Performance
750 (937)	Meets U.S. EPA Stationary Emergency Standards

Standard Features

Cat® Engine

- Robust high speed block design provides prolonged life and lower owning and operating costs
- Designed for maximum performance on low pressure gaseous fuel supply
- Simple open chamber combustion system for reliability and fuel flexibility

Generator Set Package

- Accepts 100% block load in one step and facilitates compliance with NPFA 110, Type 10 starting and loading requirements
- Conforms to ISO 8528-5 G2 load acceptance criteria
- Reliability verified through torsional vibration, fuel consumption, oil consumption, transient performance, and endurance testing

Alternators

- Superior motor starting capability minimizes need for oversizing generator
- Designed to match performance and output characteristics of Cat engines

Cooling System

- Cooling systems available to operate in ambient temperatures up to 45°C (113°F)
- Tested to ensure proper generator set cooling

EMCP 4 Control Panels

- User-friendly interface and navigation
- Scalable system to meet a wide range of installation requirements
- Expansion modules and site specific programming for specific customer requirements

Warranty

- 24 months/1000-hour warranty for standby ratings
- 12 months/unlimited hour warranty for continuous ratings
- Extended service protection is available to provide extended coverage options

Worldwide Product Support

- Cat dealers have over 1,800 dealer branch stores operating in 200 countries
- Your local Cat dealer provides extensive post-sale support, including maintenance and repair agreements

Financing

- Caterpillar offers an array of financial products to help you succeed through financial service excellence
- Options include loans, finance lease, operating lease, working capital, and revolving line of credit
- Contact your local Cat dealer for availability in your region

Optional Equipment

Engine

Air Cleaner

- Single element
- Dual element
- Heavy duty

Muffler

- Industrial grade (15 dB)
- Residential grade (18 dB)
- Critical grade (25 dB)
- Spark arresting

Starting

- Standard batteries
- Oversized batteries
- Standard electric starter(s)
- Heavy duty electric starter(s)
- Dual electric starter(s)
- Air starter(s)
- Dual air starter(s)
- Jacket water heater

Alternator

Output voltage

- 220V 480V
- 240V 600V
- 380V 2400V
- 440V 4160V

Temperature Rise (over 40°C ambient)

- 150°C
- 125°C/130°C
- 105°C
- 80°C

Winding type

- Random wound
- Form wound

Excitation

- Self excited
- Internal excitation (IE)
- Permanent magnet (PM)

Attachments

- Anti-condensation heater
- Stator and bearing temperature monitoring and protection

Power Termination

Type

- Bus bar
- Circuit breaker
- 400A 800A
- 1200A 1600A
- 2000A 2500A
- 3200A 4000A
- UL IEC
- 3-pole 4-pole
- Manually operated
- Electrically operated

Trip Unit

- LSI LSI-G
- LSIG-P

Factory Enclosure

- Weather protective
- Sound attenuated

Attachments

- Cold weather bundle
- DC lighting package
- AC lighting package
- Motorized louvers

Fuel System Pressure

- Standard
- Low

Control System

Controller

- EMCP 4.1
- EMCP 4.2
- EMCP 4.2B
- EMCP 4.3
- EMCP 4.4

Attachments

- Local annunciator module
- Remote annunciator module
- Expansion I/O module
- Remote monitoring software
- Ground fault relay

Charging

- Battery charger – 5A
- Battery charger – 10A
- Battery charger – 20A
- Battery charger – 35A
- Battery charger – 50A

Vibration Isolators

- Rubber
- Spring
- Seismic rated

Cat Connect

Connectivity

- Ethernet
- Cellular
- Satellite

Extended Service Options

Terms

- 2 year
- 3 year
- 5 year
- 10 year

Coverage

- Silver
- Gold
- Platinum
- Platinum Plus

Ancillary Equipment

- Automatic transfer switch (ATS)
- Uninterruptible power supply (UPS)
- Paralleling switchgear
- Paralleling controls

Certifications

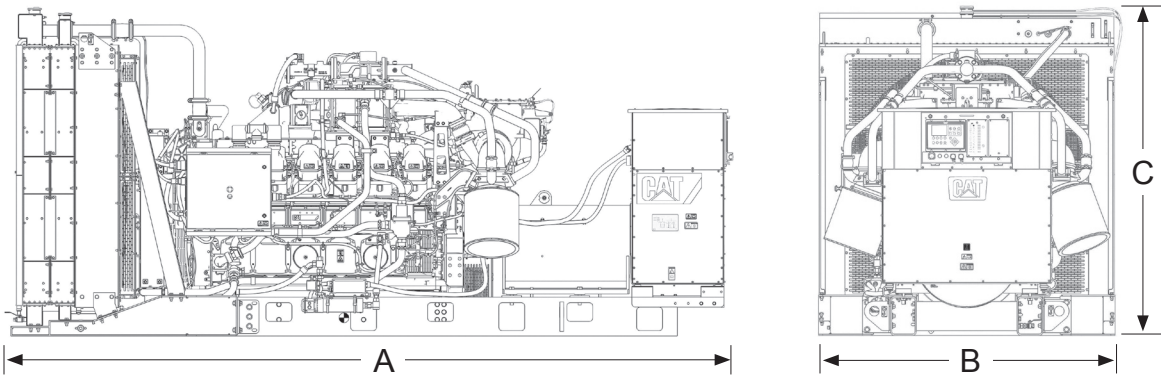
- UL 2200 Listed
- CSA Certified
- IBC seismic certification
- OSHPD pre-approval
- EU Declaration of Conformity
- EEC Declaration of Conformity

Note: Some options may not be available on all models. Certifications may not be available with all model configurations. Consult factory for availability.

Package Performance

Performance		Standby	
Frequency	60 Hz		
Genset power rating @ 0.8 power factor – ekW (kVA)	750	(937)	
Emissions	U.S. EPA Stationary Emergency		
Performance number	EM1508-00		
Fuel Consumption			
100% load with fan – Btu/ekW-hr (MJ/ekW-hr)	10312	(10.87)	
75% load with fan – Btu/ekW-hr (MJ/ekW-hr)	10948	(11.56)	
50% load with fan – Btu/ekW-hr (MJ/ekW-hr)	12422	(13.12)	
Cooling System			
Radiator air flow restriction – kPa (in. water)	.12	(.5)	
Radiator air flow – m ³ /min (cfm)	1830	(64625)	
Auxiliary circuit temperature (maximum inlet) – °C (°F)	54	(130)	
Jacket water temperature (maximum outlet) – °C (°F)	99	(210)	
Inlet Air			
Combustion air inlet flow rate (0°C, 101.3 kPa)/(77°F, 14.7 psia) – m ³ /min (cfm)	62.19	(2397)	
Altitude Capability			
At 25°C (77°F) ambient, above sea level – m (ft)	2647	(9055)	
Exhaust System			
Exhaust temperature – engine outlet – °C (°F)	536	(997)	
Air flow (0°C, 101.3 kPa)/(77°F, 14.7 psia) – Nm ³ /bkW-hr (ft ³ /min)	4.49	(2397)	
Exhaust Gas Mass Flow – kg/bkW-hr (lb/hr)	6.02	(11026)	
Heat Rejection			
Heat rejection to jacket water – kW (Btu/min)	370	(21063)	
Heat rejection to exhaust (LHV to 120°C/248°F) – kW (Btu/min)	654	(37210)	
Heat rejection to auxiliary circuit – kW (Btu/min)	68	(3870)	
Heat rejection to atmosphere from engine – kW (Btu/min)	89	(5038)	
Heat rejection to atmosphere from generator (typical) – kW (Btu/min)	29	(1675)	
Regulatory Information			
EPA – S.I. Stationary Emergency	U.S. (excludes California) 2011		

Weights and Dimensions



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
5224 (205.7)	2286 (90.0)	2525 (99.4)	12 500 (27,500)

Note: For reference only. Do not use for installation design. Contact your local Cat dealer for precise weights and dimensions.

Ratings Definitions

Standby

Output available with varying load for the duration of an emergency outage. Average power output is 100% of the standby power rating. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

Applicable Codes and Standards

AS 1359, CSA C22.2 No. 100-04, UL 489, UL 869, UL 2200, NFPA37, NFPA70, NFPA99, NFPA110, IBC, IEC 60034-1, ISO 3046, ISO 8528, NEMA MG1-22, NEMA MG1-33, 2014/35/EU, 2006/42/EC, 2014/30/EU.

Note: Codes may not be available in all model configurations. Please consult your local Cat dealer for availability.

Fuel Rates

1. For transient response, ambient, and altitude capabilities consult your local Cat dealer.
2. Fuel pressure range specified is to the engine fuel control valve. Additional fuel train components may be required and should be considered in pressure and flow calculations.
3. For a complete reference of definitions and conditions see datasheet EM1508.

<http://www.cat.com/powergeneration>

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