

Cat® G3516H

Gas Generator Sets

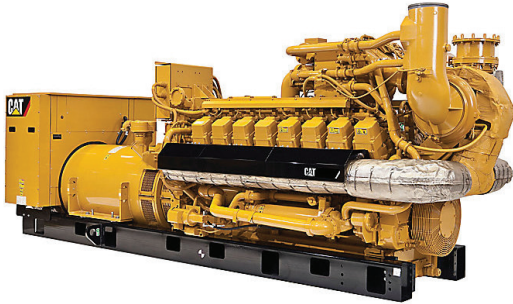


Image shown may not reflect actual configuration

Bore – mm (in)	170 (6.7)
Stroke – mm (in)	215 (8.5)
Displacement – L (in ³)	78 (4765)
Compression Ratio	12.1
Aspiration	Turbocharged
Fuel System	Electronic Fuel Control Valve
Governor Type	ADEM™ A4

Continuous (@ 1.0 pf) 60 Hz ekW
2007

Standard Features

Cat® Engine

- Robust high speed block design provides prolonged life and lower owning and operating costs
- High power density and efficiency

Generator Set Package

- Top tier electrical efficiency
- Lowest maintenance and overhaul costs driven by low oil consumption, extended service intervals, and reduced downtime
- Capable of ISO 8528-5 Class G1 transient performance with specified load steps
- Complete genset reliability verified through torsional vibration, fuel consumption, oil consumption, transient performance, and endurance testing

Generators

- High-efficiency design
- Designed to match performance and output characteristics of Cat engines

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

- 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)

- Installed
- Supplied loose

Muffler

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

Starting

- Standard batteries
- Standard electric starter(s)
- Air starter(s)
- Jacket water heater
- Oil prelube pump
- Oil level regulator

Generators

Output voltage

- 480V 6900V
- 4160V 12470V
- 6300V 13200V
- 6600V 13800V

Excitation

- Permanent magnet (PM)

Attachments

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

Power Termination

Type

- Bus bar
- Circuit breaker
- 4000A
- UL IEC
- 3-pole
- Electrically operated

Trip Unit

- LSI LSI-G
- LSI-G-P

Enclosure

- Weather protective
- Sound attenuated

Attachments

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

Fuel System Pressure

- Standard gas train

Control System

Controller

- EMCP 4.3

Attachments

- Local annunciator module
- Remote annunciator module
- Load share module
- Remote monitoring software

Charging

- Battery charger – 20A
- Engine driven charging alternator

Vibration Isolators

- Rubber
- Spring
- Seismic rated

Cat Connect

Connectivity

- Ethernet

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

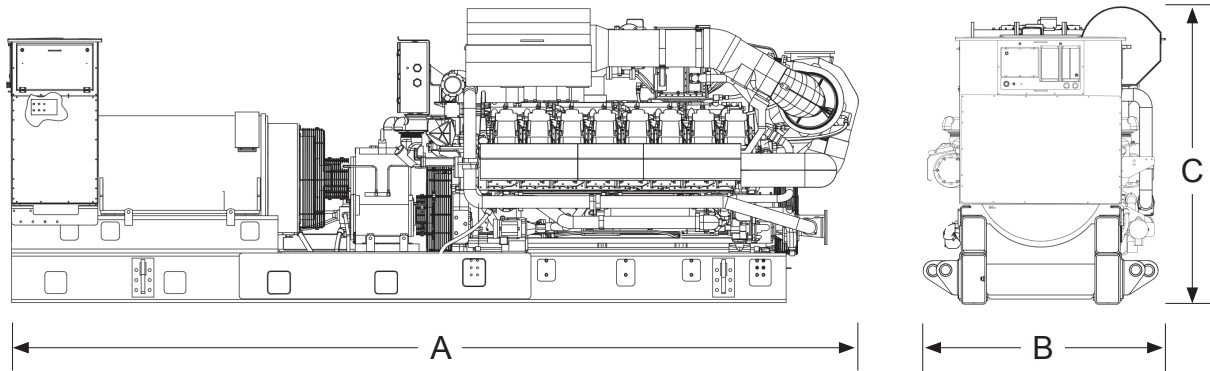
- UL 2200 Listed
- CSA Certified
- EU Declaration of Conformity
- EEC Declaration of Conformity

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	Continuous	
Frequency	60 Hz	
Genset power rating at 1.0 pf – ekW	2007	
NOx Emission Level @ 1 g/bhp-hr	500	
Performance number	EM1338-02	
Genset efficiency	45.0	
Thermal efficiency	41.1	
Total efficiency	86.1	
Fuel Consumption		
100% load with fan – MJ/ekW-hr (Btu/ekW-hr)	7.99	(7579)
75% load with fan – MJ/ekW-hr (Btu/ekW-hr)	8.19	(7762)
50% load with fan – MJ/ekW-hr (Btu/ekW-hr)	8.63	(8179)
Cooling System		
Total jacket water circuit (JW+OC+1AC) – kW (Btu/min)	1113	(63283)
Total aftercooler circuit (2AC) – kW (Btu/min)	239	(13597)
Altitude Capability		
At 25°C (77°F) ambient, above sea level – m (ft)	152	(500)
Exhaust System		
Exhaust temperature – engine outlet – °C (°F)	403	(758)
Air flow (0°C, 101.3 kPa)/(77°F, 14.7 psia) – Nm ³ /bkW-hr (ft ³ /min)	4.06	(4963)
Exhaust gas mass flow – kg/bkW-hr (lb/hr)	4.98	(22792)
Heat Rejection		
Heat rejection to jacket water – kW (Btu/min)	465	(26450)
Heat rejection to exhaust (LHV to 120°C/248°F) – kW (Btu/min)	874	(49706)
Heat rejection to auxiliary circuit – kW (Btu/min)	228	(12950)
Heat rejection to atmosphere from engine and generator – kW (Btu/min)	126	(6824)
Engine Speed		
rpm – uses a speed increasing gearbox for 60 Hz	1500	

Weights and Dimensions



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
7002.9 (275.70)	1954.8 (76.96)	2473.2 (97.37)	18 800 kg (41,446.91)

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

Ratings Definitions

Continuous Power Rating

Output available with non-varying load for an unlimited time. Average power output is 70-100% of the continuous power rating. Typical peak demand is 100% of continuous rated kW for 100% of operating hours.

Applicable Codes and Standards

AS 1359, CSA C22.2 No. 100-04, UL 142, 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 EM1338-02.

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

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