

# Cat® G3516 WITH FAST RESPONSE

## 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 <sup>3</sup> )	78 (4765)
Compression Ratio	11.5:1
Aspiration	Turbocharged
Fuel System	Electronic Fuel Control Valve
Governor Type	ADEM™ A4

Standby and Continuous 60 Hz kW (kVA) w/Fan	Emissions Performance
1500 (1875)	U.S. EPA Stationary Certified

### Standard Features

#### Cat® Natural Gas Engine

- Meets U.S EPA Stationary Non-Emergency standard to be used in Emergency and Non-Emergency applications
- Robust high speed block design provides prolonged life and lower owning and operating costs
- Designed for maximum performance on low pressure gaseous fuel supply

#### Generator Set Package

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

#### Generators

- 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 43°C (110°F)
- Package tested to ensure proper cooling of complete generator set

#### Cat Energy Control System (ECS)

- 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
- Graphical touchscreen display
- Easily upgradeable

#### 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

#### **Muffler**

- ☐ Industrial grade (15 dB)
- ☐ Residential grade (18 dB)
- ☐ Spark arresting

#### **Starting**

- ☐ Standard batteries
- ☐ Jacket water heater

### Generators

#### **Output voltage**

- ☐ 440V    ☐ 12470V
- ☐ 480V    ☐ 13200V
- ☐ 600V    ☐ 13800V
- ☐ 4160V

#### **Temperature Rise (over 40°C)**

- ☐ 150°C    ☐ 105°C
- ☐ 125°C/130°C    ☐ 80°C

#### **Winding type**

- ☐ Random wound
- ☐ Form wound

#### **Excitation**

- ☐ Permanent magnet (PM)

#### **Attachments**

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

### Radiator

- ☐ Factory Provided (1.5MW Only)
- ☐ Dealer / Customer Provided

### 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

### Enclosure (DTO)

- ☐ Weather protective
- ☐ Sound attenuated

#### **Attachments**

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

### Fuel System Pressure

- ☐ Standard
- ☐ Low

### Control System

#### **Controller**

- ☐ Cat ECS 100
- ☐ Cat ECS 200
- ☐ EMCP 4.4
- ☐ GDI Controller (US Grid Code)

#### **Attachments**

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

### Charging

- ☐ Battery charger – 20A
- ☐ Battery charger – 35A
- ☐ Battery charger – 50A

### Vibration Isolators

- ☐ Spring
- ☐ Seismic rated

### Cat Connect

#### **Connectivity**

- ☐ Ethernet
- ☐ Cellular

### Extended Service Options

#### **Terms**

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

#### **Coverage**

- ☐ Silver
- ☐ Gold
- ☐ Platinum
- ☐ Platinum Plus

### Ancillary Equipment

- ☐ Automatic transfer switch (ATS)
- ☐ Paralleling switchgear
- ☐ Paralleling controls

### Certifications

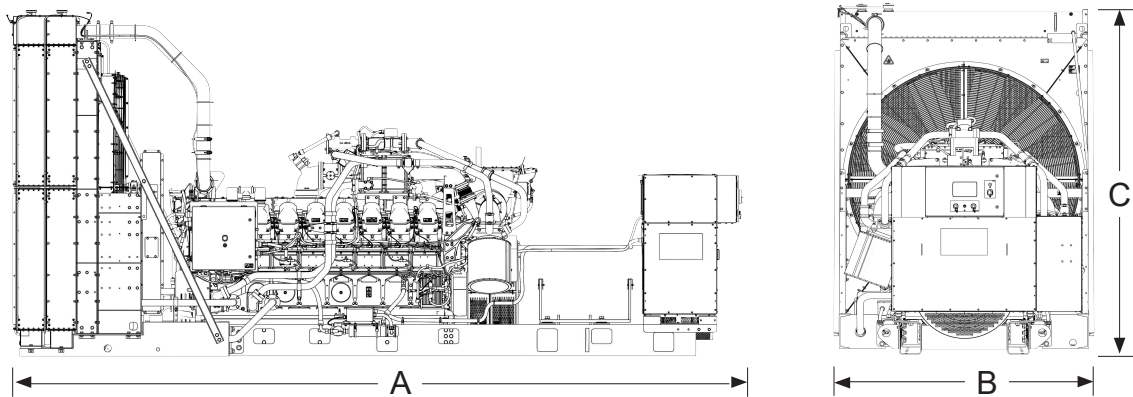
- ☐ ULC 2200 Listed
- ☐ UL 1741 Grid Code

**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 & Continuous	
Frequency		60 Hz	
Genset power rating @ 0.8 power factor – ekW (kVA)		1500 (1875kVA)	
Emissions		Certified - U.S. EPA Stationary	
Performance number		EM6966 w/fan	
Fuel Consumption			
100% load with fan – MJ/ekW-hr (Btu/ekW-hr)		10.30	(9771)
75% load with fan – MJ/ekW-hr (Btu/ekW-hr)		10.95	(10383)
50% load with fan – MJ/ekW-hr (Btu/ekW-hr)		12.31	(11671)
Cooling System			
Radiator air flow restriction – kPa (in. water)		0.12	(0.5)
Radiator air flow – m³/min (cfm)		2146	(75785)
Radiator ambient capability @ 304 m (1000 ft) – °C (°F)		43	(110)
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 – Nm³/bkW-hr (ft3/min)		4.31	(4672)
Altitude Capability			
At 25°C (77°F) ambient, above sea level – m (ft)		2000	(6562)
Exhaust System			
Exhaust temperature – engine outlet – °C (°F)		510	(951)
Exhaust Gas Flow – Nm³/bkW-hr (ft³/min)		4.58	(13231)
Exhaust Gas Mass Flow – kg/bkW-hr (lb/hr)		5.77	(21470)
Heat Rejection			
Heat rejection to jacket water circuit (JW+AC1+OC) – kW (Btu/min)		914	(51964)
Heat rejection to jacket water – kW (Btu/min)		551	(31308)
Heat rejection to exhaust (LHV to 120°C/248°F) – kW (Btu/min)		1191	(67725)
Heat rejection to auxiliary circuit – kW (Btu/min)		173	(9835)
Heat rejection to atmosphere from engine and generator – kW (Btu/min)		205	(8925)

## Weights and Dimensions



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
7000 (275.6)	2345 (92.3)	3265 (128.5)	14,314 (31,557)

**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.

### Continuous

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

### Applicable Codes and Standards

AS 1359, UL 1741, ULC 2200 2nd edition, ULC 2200 3rd edition (ECS only), UL 489, UL 869A, IEC 60034-1, ISO 3046, ISO 8528, NEMA MG1-22, NEMA MG1-33, 2014/35/EU, 2006/42/EC, 2014/30/EU and facilitates compliance to NFPA 37, NFPA 70, NFPA 99, NFPA 110.

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

### Fuel Rates

- For transient response, ambient, and altitude capabilities consult your local Cat dealer.
- 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.
- For a complete reference of definitions and conditions see the following data sheets
  - 1500ekW Standby: EPA Certified EM6966 w/fan, EM6692 w/o fan
  - 1500ekW Continuous: EPA Certified EM6093 w/fan, EM6088 w/o fan
  - 1500ekW Standby: Non-Certified 0.5g EM6968 w/fan, EM6964 w/o fan
  - 1500ekW Continuous: Non-Certified 0.5g EM6095 w/fan, EM6092 w/o fan
  - 1500ekW Standby: Non-Certified 1.0g EM6967 w/fan, EM6963 w/o fan
  - 1500ekW Continuous: Non-Certified 1.0g EM6094 w/fan, EM6089 w/o fan

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