

# Cat® G3516B

## Natural Gas Generator Sets



Image shown may not reflect actual configuration

Bore – mm (in)	170 (6.7)
Stroke – mm (in)	190 (7.5)
Displacement – L (in³)	69.0 (4211)
Aspiration	Turbocharged
Fuel System	Electronic Fuel Control Valve
Governor Type	ADEM™ A4

	Fuel Type	ekW (kVA)	Compression Ratio	Engine Speed – rpm
Continuous 60 Hz	Natural Gas	1300 (1625)	11.0:1	1800

### 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
- Conservative power density for reliability and long operational life span
- High percentage of component commonality with diesel engines

#### Generator Set Package

- Reliability verified through torsional vibration, fuel consumption, oil consumption, transient performance, and endurance testing

#### Generators

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

#### Applications

- Caterpillar generator sets are capable of maximizing power production opportunities in an extensive range of industries

#### 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 System**

- ☐ Air inlet adapter

#### **Cooling System**

- ☐ Mechanical joint assembly

#### **Exhaust System**

- ☐ Elbows
- ☐ Expanders
- ☐ Flanges
- ☐ Flexible fittings

#### **Fuel System**

- ☐ Fuel filter - shipped loose
- ☐ Fuel regulator - shipped loose

#### **General**

- ☐ Barring group

#### **Lubrication**

- ☐ Lubricating oil (NGEO)
- ☐ Oil level regulator
- ☐ Electric prelube
- ☐ Positive crankcase ventilation
- ☐ Duplex oil filter

#### **Mufflers**

- ☐ Industrial Grade (15dB)
- ☐ Residential Grade (18dB)
- ☐ Critical Grade (25dB)
- ☐ Spark Arresting

#### **Protection System**

- ☐ Explosion Relief Valves

#### **Starting/Charging**

- ☐ Charging alternator - 60A
- ☐ Battery charger - 20A
- ☐ Battery charger - 10A
- ☐ Oversized batteries
- ☐ Battery cables / racks
- ☐ Air starters
- ☐ Jacket water heater

### Generators

#### **Output voltage**

- ☐ 380V
- ☐ 440V
- ☐ 480V
- ☐ 600V
- ☐ 2400V
- ☐ 4160V

#### **Temperature Rise (over 40°C ambient)**

- ☐ 105°C
- ☐ 80°C

#### **Attachments**

- ☐ Anti-condensation heater
- ☐ Generator RTD module
- ☐ Neutral Ground

### Power Termination

#### **Type**

- ☐ NEMA Bus bar
- ☐ Circuit breaker

#### **Circuit Breaker Options**

- ☐ 1600A
- ☐ 2000A
- ☐ UL ☐ IEC
- ☐ 3-pole ☐ 4-pole
- ☐ Manually operated
- ☐ Electrically operated

#### **Trip Unit Options**

- ☐ LSI ☐ LSI-G
- ☐ LSI-G-P

### Cat Connect

#### **Connectivity**

- ☐ Ethernet
- ☐ Satellite
- ☐ Cell

### Control System

#### **Controller**

- ☐ EMCP 4.3
- ☐ EMCP 4.4

#### **Attachments**

- ☐ Discrete I/O module
- ☐ Load share module
- ☐ Local annunciator module
- ☐ Remote annunciator module
- ☐ Remote monitoring software

### Vibration Isolators

- ☐ Rubber
- ☐ Spring
- ☐ Seismic rated

### Enclosure

- ☐ Weather protective
- ☐ Sound attenuated

#### **Attachments**

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

### Ancillary Equipment

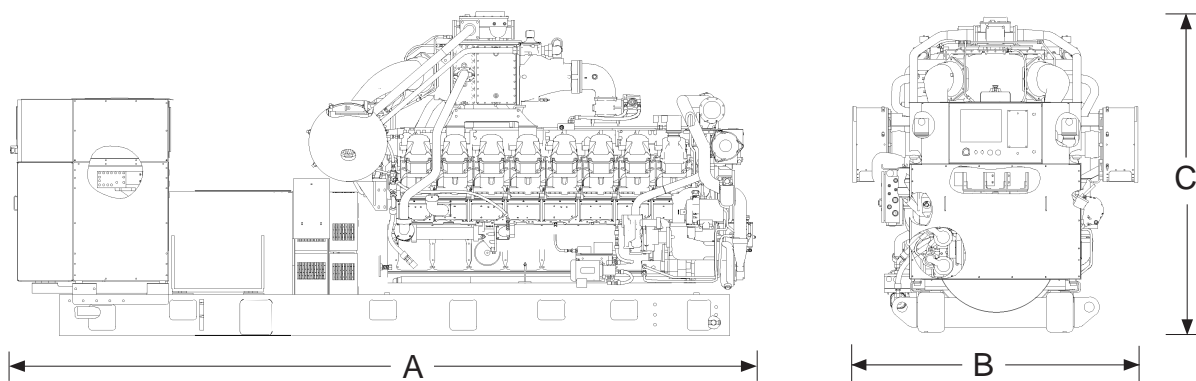
- ☐ Automatic transfer switch (ATS)
- ☐ Uninterruptible power supply (UPS)
- ☐ Paralleling switchgear
- ☐ Paralleling controls

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

## 60 Hz Standard Package Performance – AC and JW Pumps

Performance		Continuous			
Frequency	60 Hz				
Genset power rating @ 0.8 power factor – ekW (kVA)	1300	(1625)	1300	(1625)	
Engine speed – rpm	1800		1800		
Emissions – mg/Nm³ (g/bhp-hr) NOx	205	(0.5)	429	(1.0)	
Performance number	DM5643-03		DM5645-03		
Fuel Consumption					
100% load with fan – MJ/ekW-hr (Btu/ekW-hr)	10.51	(9965)	10.23	(9704)	
75% load with fan – MJ/ekW-hr (Btu/ekW-hr)	10.98	(10415)	10.60	(10046)	
50% load with fan – MJ/ekW-hr (Btu/ekW-hr)	11.64	(11036)	11.50	(10900)	
Cooling System					
Auxiliary circuit temperature (maximum inlet) – °C (°F)	54	(130)	54	(130)	
Jacket water temperature (maximum outlet) – °C (°F)	92	(198)	92	(198)	
Inlet Air					
Combustion air inlet flow rate (0°C, 101.3 kPa)/(77°F, 14.7 psia) – Nm³/bkW-hr (ft³/min)	4.73	(4121)	4.51	(3932)	
Altitude Capability					
At 25°C (77°F) ambient, above sea level – m (ft)	682	(2238)	903	(2963)	
Exhaust System					
Exhaust temperature – engine outlet – °C (°F)	523	(974)	530	(986)	
Exhaust gas flow (0°C, 101.3 kPa, 14.5psia) – Nm³/bkW-hr (ft³/min)	5.03	(11850)	4.80	(11418)	
Exhaust gas mass flow – kg/bkW-hr (lb/hr)	6.34	(18939)	6.05	(18086)	
Heat Rejection					
Heat rejection to jacket water – kW (Btu/min)	504	(28688)	491	(27939)	
Heat rejection to exhaust (LHV to 120°C/248°F) – kW (Btu/min)	1086	(61754)	1056	(60078)	
Heat rejection to auxiliary circuit – kW (Btu/min)	140	(7961)	124	(7052)	
Heat rejection to atmosphere from engine and generator – kW (Btu/min)	186	(10565)	186	(10565)	
Heat rejection to jacket water circuit (JW+OC+AC1) – kW (Btu/min)	799	(45469)	774	(44029)	

## Weights and Dimensions



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
5519.10 (217.28)	2180.20 (85.83)	2402.00 (94.56)	12618 (27823)

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

## Ratings Definitions

### Continuous

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

AS1359, CSA C22.2 No100-04, UL142, UL489, UL869, UL2200, NFPA37, NFPA70, NFPA99, NFPA110, IEC60034-1, ISO3046, ISO8528, NEMA MG1-22, NEMA MG1-33, 2006/95/EC, 2006/42/EC, 2004/108/EC.

**Note:** Codes and standards compliance 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 datasheets
  - 60 Hz 1300ekw Continuous /Standard (W/ Pumps)**  
DM5643-03 (0.5g/bhp-hr NOx) - SCAC IN/OUT: 130/198°F
  - 60 Hz 1300ekw Continuous /Standard (W/ Pumps)**  
DM5645-03 (1.0g/bhp-hr NOx) - SCAC IN/OUT: 130/198°F

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

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The International System of Units (SI) is used in this publication.