

# Cat® D1000 GC

## Diesel Generator Sets



Image shown might not reflect actual configuration.

Engine	C32
Bore – mm (in)	145 (5.7)
Stroke – mm (in)	162 (6.4)
Displacement – L (in <sup>3</sup> )	32.1 (1959)
Compression Ratio	15.0:1
Aspiration	TA
Fuel System	EUI
Governor Type	ADEM™ A4

Model	Standby 60 Hz kW (kVA)	Emissions Performance
D1000 GC	1000 (1250)	U.S. EPA Emergency Stationary Use only (Tier 2)

### Standard Features

#### Cat® Diesel Engine

- Meets U.S. EPA Emergency Stationary Use only (Tier 2) emission standards
- Reliable performance proven in thousands of applications worldwide

#### Generator Set Package

- Meets NFPA 110 start time & block load requirements
- Conforms to ISO 8528-5 G3 load acceptance requirements
- Reliability is verified through prototype testing, which includes torsional vibration, fuel consumption, oil consumption, transient performance, and endurance testing

#### Alternators

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

#### Cooling System

- Cooling systems available to operate in ambient temperatures up to 50°C (122°F)
- Tested to ensure proper generator set cooling

#### GCCP Control Panels

- User-friendly set-up and button layout for ease of use
- Multiple parameters are monitored & displayed simultaneously for full visibility
- The module can be configured to suit a wide range of applications for user flexibility

#### Warranty and Extended Service Coverage (ESC)

- 24 months/1000-hour warranty for standby ratings
- 5 yrs Platinum Complimentary Extended Service Coverage

#### 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

### Standard and Optional Equipment

#### Engine

##### Air Cleaner

- ☐ Single element
- ☐ Dual element

##### Starting

- ☐ Standard batteries
- ☐ Oversized batteries
- ☐ Dual Electric Starters
- ☐ Jacket water heater

##### Engine Attachments

- ☐ 6" Exhaust Flexible Fittings
- ☐ 6" Exhaust Flange Kits
- ☐ Radiator Duct Flange

#### Alternator

##### Output voltage

- ☐ 480V
- ☐ 600V

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

- ☐ 125°C
- ☐ 105°C

##### Winding type

- ☐ Random wound

##### Excitation

- ☐ Internal excitation (IE)
- ☐ Permanent magnet (PM)

##### Attachments

- ☐ Anti-condensation heater

#### Power Termination

##### Type

- ☐ Circuit breaker (Primary)
- ☐ 1200A ☐ 1600A ☐ 2000A
- ☐ Circuit breaker (Auxiliary)
- ☐ 250A ☐ 400A
- ☐ 3-pole
- ☐ Manually operated

##### Trip Unit

- ☐ LSI ☐ LSIG ☐ LSIG-P

#### Factory Enclosure

- ☐ Sound attenuated
- ☐ Weatherproof

##### Attachments

- ☐ DC lighting package

#### Fuel Tank

- ☐ Integrated 2100 gal (7950 L)
- ☐ Sub base 3000 gal (11356 L)
- ☐ Sub base 4200 gal (15876 L)

#### Control System

##### Controller

- ☐ GCCP 1.2

##### Attachments

- ☐ Remote annunciator module
- ☐ Expansion I/O module
- ☐ 100A Load Center
- ☐ 20A GFCI AC Receptacle
- ☐ Ground Fault Indication
- ☐ Audible Alarm

#### Charging

- ☐ Battery charger – 10A (Installed)
- ☐ Battery charger – 20A (Shipped loose)

#### Cat Connect

##### Connectivity

- ☐ Ethernet
- ☐ Cellular

#### Extended Service Options

##### Terms

- ☐ 3 year
- ☐ 4 year
- ☐ 5 year

##### Coverage

- ☐ Silver
- ☐ Gold
- ☐ Platinum

#### Certifications

- ☐ UL 2200 Listed
- ☐ cUL CSA 22.2 No. 100-14
- ☐ IBC seismic certification

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

# D1000 GC Diesel Generator Sets

## Electric Power



### Package Performance – D1000 GC

Performance	Standby	
Frequency	60 Hz	
Gen set power rating with fan	1000 ekW	
Gen set power rating with fan @ 0.8 power factor	1250 kVA	
Fueling strategy	EPA ESE (Tier 2)	
Performance number	DM9933	
Fuel Consumption		
100% load with fan – L/hr (gal/hr)	272.1	(71.9)
75% load with fan – L/hr (gal/hr)	213.4	(56.4)
50% load with fan – L/hr (gal/hr)	144.7	(38.2)
25% load with fan – L/hr (gal/hr)	82.6	(21.8)
Cooling System		
Radiator air flow restriction (system) – kPa (in. water)	0.12	(0.48)
Radiator air flow – m³/min (CFM)	943	(33301)
Engine coolant capacity – L (gal)	55	(14.5)
Radiator coolant capacity – L (gal)	49	(12.9)
Total coolant capacity – L (gal)	104	(27.5)
Inlet Air		
Combustion air inlet flow rate – m³/min (CFM)	87.6	(3094.1)
Exhaust System		
Exhaust stack gas temperature – °C (°F)	476.4	(889.5)
Exhaust gas flow rate – m³/min (CFM)	228.4	(8065.3)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7	(27.0)
Heat Rejection		
Heat rejection to jacket water – kW (BTU/min)	352	(20033)
Heat rejection to exhaust (total) – kW (BTU/min)	1024	(58206)
Heat rejection to aftercooler – kW (BTU/min)	288	(16385)
Heat rejection to atmosphere from engine – kW (BTU/min)	127	(7238)
Heat rejection from alternator – kW (BTU/min)	55	(3131)
Emissions* (Nominal)		
NOx mg/Nm³ (g/hp-h)	2348.6	(4.93)
CO mg/Nm³ (g/hp-h)	62.1	(0.13)
HC mg/Nm³ (g/hp-h)	5.5	(0.01)
PM mg/Nm³ (g/hp-h)	7.2	(0.02)
Emissions* (Potential Site Variation)		
NOx mg/Nm³ (g/hp-h)	2841.6	(5.97)
CO mg/Nm³ (g/hp-h)	116.1	(0.24)
HC mg/Nm³ (g/hp-h)	10.3	(0.03)
PM mg/Nm³ (g/hp-h)	14.1	(0.04)

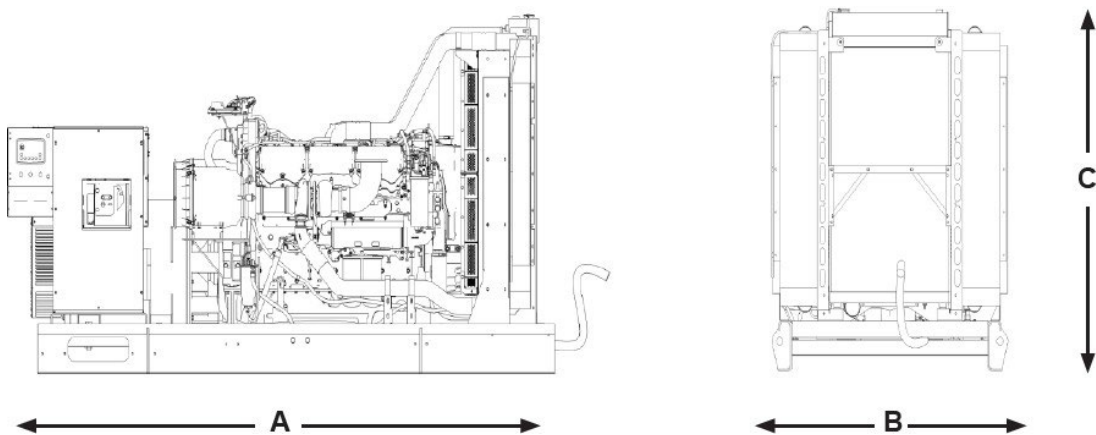
\*mg/Nm³ levels are corrected to 5% O₂. Contact your local Cat dealer for further information.

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## Electric Power



### Weights and Dimensions



Model	Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
D1000 GC	4175 (164.3)	1856 (73.1)	2217.5 (87.3)	6654 (14669)

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

### Ratings and Definitions

#### Standby

Output available with varying load for the duration of the interruption of the normal source power. Average power output is 70% 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, UL 2200 3<sup>rd</sup> edition, UL 489, UL 869A, IBC, 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. Site level review needed for NFPA70. Please consult your local Cat dealer for availability.

#### Fuel Rates

Fuel rates are based on fuel oil of 35° API [16°C (60°F)] gravity having an LHV of 42,780 kJ/kg (18,390 Btu/lb) when used at 29°C (85°F) and weighing 838.9 g/liter (7.001 lbs/U.S. gal.).

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