

# 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 TBD (to be validated)
- 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 Gold 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  LSI-G  LSI-G-P

#### Factory Enclosure

- Sound attenuated
- Weatherproof

##### Attachments

- DC lighting package

#### Fuel Tank

- Intergrated 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

#### Certifications

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

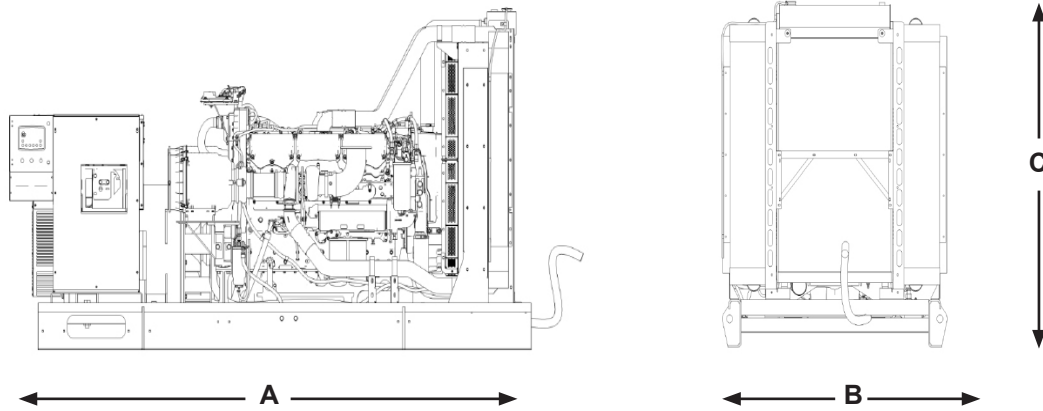
Note: Some options may not be available on all models. Certifications may not be available with all model configurations. Consult factory for availability.

### 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	
<b>Fuel Consumption</b>		
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)
<b>Cooling System</b>		
Radiator air flow restriction (system) – kPa (in. water)	0.12	(0.48)
Radiator air flow – m <sup>3</sup> /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)
<b>Inlet Air</b>		
Combustion air inlet flow rate – m <sup>3</sup> /min (cfm)	87.6	(3094.1)
<b>Exhaust System</b>		
Exhaust stack gas temperature – °C (°F)	476.4	(889.5)
Exhaust gas flow rate – m <sup>3</sup> /min (cfm)	228.4	(8065.3)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7	(27.0)
<b>Heat Rejection</b>		
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)
<b>Emissions* (Nominal)</b>		
NOx mg/Nm <sup>3</sup> (g/hp-h)	2348.6	(4.93)
CO mg/Nm <sup>3</sup> (g/hp-h)	62.1	(0.13)
HC mg/Nm <sup>3</sup> (g/hp-h)	5.5	(0.01)
PM mg/Nm <sup>3</sup> (g/hp-h)	7.2	(0.02)
<b>Emissions* (Potential Site Variation)</b>		
NOx mg/Nm <sup>3</sup> (g/hp-h)	2841.6	(5.97)
CO mg/Nm <sup>3</sup> (g/hp-h)	116.1	(0.24)
HC mg/Nm <sup>3</sup> (g/hp-h)	10.3	(0.03)
PM mg/Nm <sup>3</sup> (g/hp-h)	14.1	(0.04)

\*mg/Nm<sup>3</sup> levels are corrected to 5% O<sub>2</sub>. Contact your local Cat dealer for further information.

### 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

CSA C22.2 No. 100-14, UL 142, UL 489, UL 869A, UL 2200, IBC 2018, ISO 3046, ISO 8528 and facilitates compliance to NFPA37, NFPA70, NFPA99 and NFPA110 codes

**Note:** Codes may not be available in all model configurations. 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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