

# Cat® DE1500 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	14.0:1
Aspiration	TA
Fuel System	EUI
Governor Type	ADEM™ A4

Model	Standby 50 Hz kVA (ekW)	Emissions Performance
DE1500 GC	1500 (1200)	Optimized for Low Fuel Consumption

### Standard Features

#### Cat® Diesel Engine

- Designed and optimized for low fuel consumption
- Industry-leading mechanical and electrical design
- Industry-leading motor starting capabilities
- High efficiency

#### Generator Set Package

- Conforms to ISO8528-5 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 50°C @ 0 m
- 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

- 24 months/1000-hour warranty for standby and mission critical 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

### Standard and Optional Equipment

#### Engine

##### **Air Cleaner**

- Single element
- Dual element

##### **Starting**

- Standard batteries
- Jacket water heater

##### **Engine Attachments**

- Manual Sump Pump
- Fuel Transfer Pump  
(With fuel tank base only)
- 6" Exhaust Flexible Fittings
- 6" Exhaust Flange Kits

#### Alternator

##### **Output voltage**

- 400V
- 415V

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

- 150°C

##### **Winding type**

- Random wound

##### **Excitation**

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

##### **Attachments**

- Anti-condensation heater

#### Power Termination

##### **Type**

- Power Terminal Strips
- Circuit breaker
- 2500A
- 3-pole    4-pole
- Manually operated
- Electrically operated

#### Factory Enclosure

- Sound attenuated

##### **Attachments**

- DC lighting package

#### Fuel Tank

- 1000 L (264 gal)  
(With enclosure only)

#### Control System

##### **Controller**

- GCCP 1.3
- GCCP 1.4

##### **Attachments**

- Ground Fault Indication

#### Charging

- Battery charger – 10A

#### Cat Connect

##### **Connectivity**

- Ethernet
- Cellular

#### Extended Service Options

##### **Terms**

- 3 year
- 4 year
- 5 year

##### **Coverage**

- Silver
- Gold

#### Certifications

- CE
- EAC
- UKCA

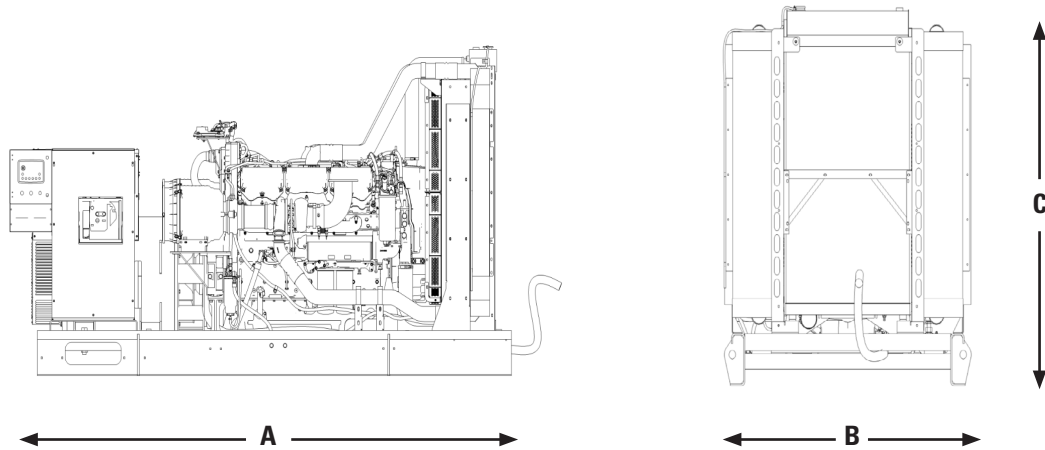
Note: Some options may not be available on all models. Certifications may not be available with all model configurations. Consult factory for availability.

### Package Performance – DE1500 GC

Performance	Standby		Mission Critical	
Frequency	50 Hz		50 Hz	
Genset power rating with fan	1200 ekW		1200 ekW	
Genset power rating with fan @ 0.8 power factor	1500 kVA		1500 kVA	
Fueling strategy	Low Fuel Consumption		Low Fuel Consumption	
Performance number	EM2320-03		EM2528-01	
<b>Fuel Consumption</b>				
100% load with fan – L/hr (gal/hr)	314.7	(83.1)	314.7	(83.1)
75% load with fan – L/hr (gal/hr)	232.8	(61.5)	232.8	(61.5)
50% load with fan – L/hr (gal/hr)	158.5	(41.9)	158.5	(41.9)
25% load with fan – L/hr (gal/hr)	92.3	(24.4)	92.3	(24.4)
<b>Cooling System</b>				
Radiator air flow restriction (system) – kPa (in. water)	0.12	(0.48)	0.12	(0.48)
Radiator air flow – m <sup>3</sup> /min (cfm)	1101	(38881)	1101	(38881)
Engine coolant capacity – L (gal)	55	(14.5)	55	(14.5)
Radiator coolant capacity – L (gal)	61	(16.1)	61	(16.1)
Total coolant capacity – L (gal)	116	(30.6)	116	(30.6)
<b>Inlet Air</b>				
Combustion air inlet flow rate – m <sup>3</sup> /min (cfm)	100.6	(3551.3)	100.6	(3551.3)
<b>Exhaust System</b>				
Exhaust stack gas temperature – °C (°F)	429.6	(805.2)	429.6	(805.2)
Exhaust gas flow rate – m <sup>3</sup> /min (cfm)	247.0	(8720.6)	247.0	(8720.6)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7	(27.0)	6.7	(27.0)
<b>Heat Rejection</b>				
Heat rejection to jacket water – kW (Btu/min)	385	(21906)	385	(21906)
Heat rejection to exhaust (total) – kW (Btu/min)	1067	(60682)	1067	(60682)
Heat rejection to aftercooler – kW (Btu/min)	386	(21957)	386	(21957)
Heat rejection to atmosphere from engine – kW (Btu/min)	211	(11975)	211	(11975)
Heat rejection from alternator – kW (Btu/min)	57.9	(3293)	57.9	(3293)
<b>Emissions* (Nominal)</b>				
NOx mg/Nm <sup>3</sup> (g/hp-h)	2657.4	(5.70)	2657.4	(5.70)
CO mg/Nm <sup>3</sup> (g/hp-h)	48.1	(0.098)	48.1	(0.098)
HC mg/Nm <sup>3</sup> (g/hp-h)	6.3	(0.018)	6.3	(0.018)
PM mg/Nm <sup>3</sup> (g/hp-h)	6.9	(0.016)	6.9	(0.016)
<b>Emissions* (Potential Site Variation)</b>				
NOx mg/Nm <sup>3</sup> (g/hp-h)	3215.5	(6.90)	3215.5	(6.90)
CO mg/Nm <sup>3</sup> (g/hp-h)	90	(0.184)	90	(0.184)
HC mg/Nm <sup>3</sup> (g/hp-h)	11.8	(0.035)	11.8	(0.035)
PM mg/Nm <sup>3</sup> (g/hp-h)	13.5	(0.031)	13.5	(0.031)

\*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)	Wet Weight kg (lb)
DE1500 GC	4175 (164.3)	2090.5 (82.3)	2268 (89.3)	7436 (16393)

**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.

#### Mission Critical

Output available with varying load for the duration of the interruption of the normal source power. Average power output is 85% of the mission critical power rating. Typical peak demand up to 100% of rated power for up to 5% of the operating time. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

#### Applicable Codes and Standards

AS1359, IEC 60034-1, ISO 3046, ISO 8528, 2014/35/EU, 2006/42/EC, 2014/30/EU, 2008 No. 1597, 2016 No. 1091, 2016 No. 1101 and 2001 No. 1701 amended by 2005 No. 3525.

**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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