

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 ³)	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.

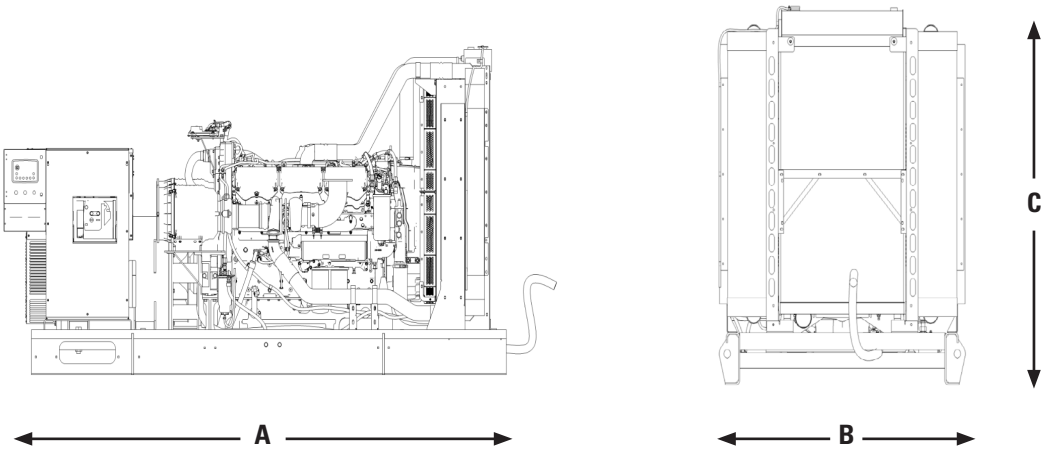
Package Performance – DE1500 GC

Performance	Standby		Mission Critical	
Frequency	50 Hz		50 Hz	
Gen set power rating with fan	1200 ekW		1200 ekW	
Gen set 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	
Fuel Consumption				
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)
Cooling System				
Radiator air flow restriction (system) – kPa (in. water)	0.12	(0.48)	0.12	(0.48)
Radiator air flow – m³/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)
Inlet Air				
Combustion air inlet flow rate – m³/min (cfm)	100.6	(3551.3)	100.6	(3551.3)
Exhaust System				
Exhaust stack gas temperature – °C (°F)	429.6	(805.2)	429.6	(805.2)
Exhaust gas flow rate – m³/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)
Heat Rejection				
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)
Emissions* (Nominal)				
NOx mg/Nm³ (g/hp-h)	2657.4	(5.70)	2657.4	(5.70)
CO mg/Nm³ (g/hp-h)	48.1	(0.098)	48.1	(0.098)
HC mg/Nm³ (g/hp-h)	6.3	(0.018)	6.3	(0.018)
PM mg/Nm³ (g/hp-h)	6.9	(0.016)	6.9	(0.016)
Emissions* (Potential Site Variation)				
NOx mg/Nm³ (g/hp-h)	3215.5	(6.90)	3215.5	(6.90)
CO mg/Nm³ (g/hp-h)	90	(0.184)	90	(0.184)
HC mg/Nm³ (g/hp-h)	11.8	(0.035)	11.8	(0.035)
PM mg/Nm³ (g/hp-h)	13.5	(0.031)	13.5	(0.031)

*mg/Nm³ levels are corrected to 5% O₂. 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.)



Image shown may not reflect actual configuration.

Sound Attenuated Enclosures DE800S GC – DE1250S GC DE1100 GC – DE1500 GC

These sound attenuated, factory installed enclosures are designed for safety and aesthetic value. Rugged construction provides weather protection and the ability to withstand exposure to the elements.

FEATURES

Robust/Highly Corrosion-Resistant Construction

- Environmentally friendly, polyester powder-baked paint in Caterpillar yellow
- Zinc Plated and Stainless Steel Fasteners
- 14-Gauge Steel Construction
- Flat Roof with protection for water ingress from Rain
- Critical Grade internally mounted muffler/exhaust system
- Soft Mounted isolators
- SA Level 2

Excellent Access

- Control panel mounted on RH side of the package
- Large cable entry area for the ease of installation
- Right-hand bottom entry access to power cable bus or circuit breaker
- Multiple doors on both sides allow easy access to service points
- Hinged doors allow 180° opening rotation
- Lube Oil and coolant drains piped to exterior of enclosure and terminated drain valves
- Radiator fill cover

Options

- Interior DC lighting systems
- 1000L fuel tank (Integral to the base)

Security and Safety

- Lockable access doors with standard key use
- Cooling fan and battery charging alternator fully guarded
- Oil fill and battery can only be reached via lockable access
- External fuel connections
- Externally mounted emergency stop buttons
- Designed for spreader bar lifting to ensure safety

Certifications

- CE
- EAC
- UKCA

Enclosure Weights and Dimensions – 800 ekW & 1000 ekW

Enclosure Base Options				
DE800S GC, DE1000S GC	Weight kgs (lbs)	Length mm (in)	Width mm (in)	Height mm (in)
With Lifting Base	2813 (6202)	5831 (230)	2300 (91)	2549 (100)
With 1000L integral tank base	3576 (7884)	5831 (230)	2300 (91)	2549 (100)

Enclosure Weights and Dimensions – 1100 kVA & 1250 kVA

Enclosure Base Options				
DE1100 GC, DE1250 GC	Weight kgs (lbs)	Length mm (in)	Width mm (in)	Height mm (in)
With Lifting Base	2523 (5562)	5831 (230)	2300 (91)	2549 (100)
With 1000L integral tank base	3285 (7243)	5831 (230)	2300 (91)	2549 (100)

Enclosure Weights and Dimensions – 1400 kVA, 1500 kVA, 1250 ekW

Enclosure Base Options				
DE1400 GC, DE1500 GC, DE1250S GC	Weight kgs (lbs)	Length mm (in)	Width mm (in)	Height mm (in)
With Lifting Base	3620 (7982)	6669 (263)	2474 (97)	2664 (105)
With 1000L integral tank base	4683 (10325)	6669 (263)	2450 (96)	2789 (110)

Generator Set Weights

Generator Set Weights**	Weight kgs (lbs)
C27 Open Generator Set	5813 (12815)
C32 Open Generator Set	6798 (14987)

**Dry Weight of heaviest configuration and without base rail weight (Does not include exhaust system weights).

Note: For reference only – do not use for installation design. Please contact your dealer for exact weights and dimensions.

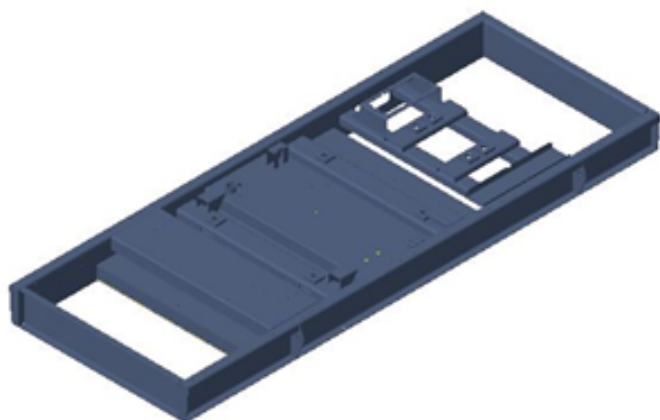
LET'S DO THE WORK.™

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C27 and C32 Integral Fuel Tank Bases

India and China Sourced

Single Wall integrated fuel tank base offer an integrated fuel solution for your Cat diesel generator set.

Features

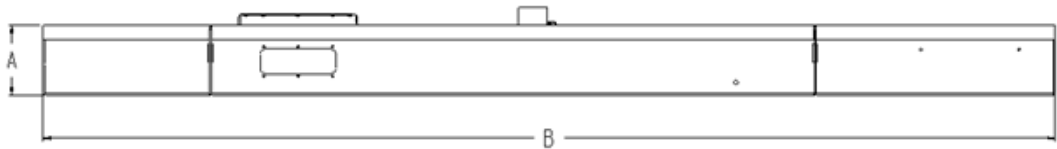
- Tank design provides capacity for thermal expansion of fuel
- Integral diesel fuel tank is incorporated into the generator set base frame
- Direct reading fuel level gauge
- Fuel supply dip tubes positioned so as not to pick up fuel sediment
- Fuel return and supply dip tubes are separated by an internal baffle to prevent recirculation of heated return fuel
- Fuel fill – 76.2 mm (3 in), lockable flip top cap
- Tanks are leak tested at 30 kPa (4.5 psi) minimum
- Heavy gauge steel gussets suitable for lifting package
- Polyester powder coating – Gloss black textured finish
- Designed to ship 2 fully assembled gensets in a 40 ft high cube container*
- Primary tanks are equipped with customer connections for remote fuel transfer, return and vent
- Single wall design
- Heavy construction 8 mm (0.31 in) steel plate side channels and 6 mm (0.24 in) sheet steel tank design

Options

- Manual fuel transfer pump
- Low fuel level alarm
- Manual Sump pump - Oil

* Weight is for tank only. Does not include additions or removals required by pricelist

C27/C32 Enclosure Integral Fuel Tank Base Options



Model	Fillable Capacity		Usable Capacity		Weight#		Width		Length 'B'		Height 'A'		Package Height	
	L	gal	L	gal	kg	lb	mm	in	mm	in	mm	in	mm	in
Non-Spur	1180	311	1000	264	1924	4241	2190	86	5820	229	400	16	2549	100
Spur	1200	317	1000	264	2282	5030	2344	92	6195	244	425	17	2789	110

#Weight is for tank only. Does not include additions or removals required by pricelist.
The heights listed above do not include lumber used during manufacturing and shipping.

Note: For reference only – do not use for installation design. Please contact your dealer for exact weights and dimensions.