

Cat® D800 GC

Diesel Generator Sets



Image shown might not reflect actual configuration.

Engine	C27
Bore – mm (in)	137.2 (5.4)
Stroke – mm (in)	152.4 (6.0)
Displacement – L (in ³)	27.03 (1649.47)
Compression Ratio	16.5:1
Aspiration	TA
Fuel System	MEUI
Governor Type	ADEM™ A4

Model	Standby 60 Hz kW (kVA)	Emissions Performance
D800 GC	800 (1000)	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

- Accepts 100% block load in one step and meets NFPA 110 loading 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

- Open 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

- 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.

D800 GC Diesel Generator Sets

Electric Power



Package Performance – D800 GC

Performance	Standby	
Frequency	60 Hz	
Gen set power rating with fan	800 ekW	
Gen set power rating with fan @ 0.8 power factor	1000 kVA	
Fueling strategy	EPA ESE (Tier 2)	
Performance number	DM7696	
Fuel Consumption		
100% load with fan – L/hr (gal/hr)	216.9	(57.3)
75% load with fan – L/hr (gal/hr)	171.7	(45.4)
50% load with fan – L/hr (gal/hr)	122.3	(32.3)
25% load with fan – L/hr (gal/hr)	73.9	(19.5)
Cooling System		
Radiator air flow restriction (system) – kPa (in. water)	0.12	(0.48)
Radiator air flow – m ³ /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 – m ³ /min (cfm)	62.8	(2216.4)
Exhaust System		
Exhaust stack gas temperature – °C (°F)	511.4	(952.5)
Exhaust gas flow rate – m ³ /min (cfm)	170.3	(6011.7)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7	(27.0)
Heat Rejection		
Heat rejection to jacket water – kW (Btu/min)	330	(18785)
Heat rejection to exhaust (total) – kW (Btu/min)	796	(45257)
Heat rejection to aftercooler – kW (Btu/min)	162	(9235)
Heat rejection to atmosphere from engine – kW (Btu/min)	110	(6240)
Heat rejection from alternator – kW (Btu/min)	40	(2292)
Emissions* (Nominal)		
NOx mg/Nm ³ (g/hp-h)	2580	(5.18)
CO mg/Nm ³ (g/hp-h)	115.1	(0.23)
HC mg/Nm ³ (g/hp-h)	12.5	(0.03)
PM mg/Nm ³ (g/hp-h)	9.7	(0.02)

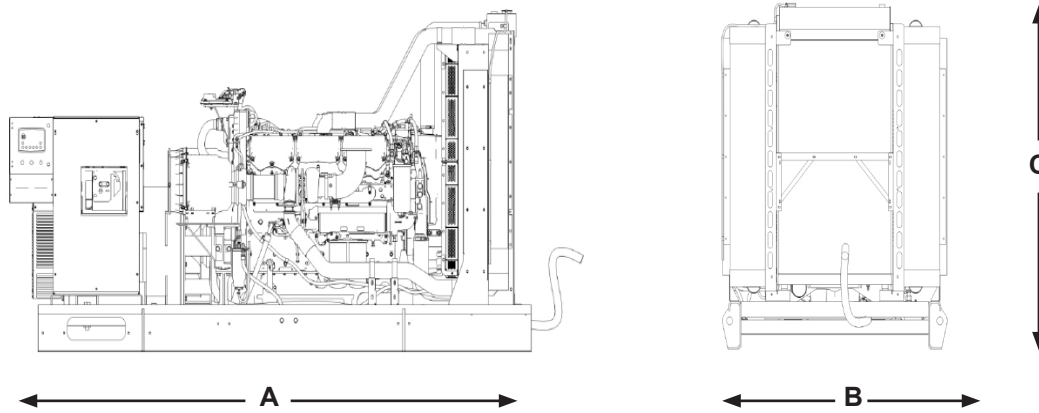
*mg/Nm³ levels are corrected to 5% O₂. Contact your local Cat dealer for further information.

D800 GC Diesel Generator Sets

Electric Power



Weights and Dimensions



Model	Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Wet Weight kg (lb)
D800 GC	4175 (164.3)	1856 (73.1)	2217.5 (87.3)	6212 (13695)

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.).

www.cat.com/electricpower

©2022 Caterpillar
All rights reserved.

Materials and specifications are subject to change without notice.

LET'S DO THE WORK.™

The International System of Units (SI) is used in this publication. CAT, CATERPILLAR, LET'S DO THE WORK, their respective logos, "Caterpillar Corporate Yellow", the "Power Edge" and Cat "Modern Hex" trade dress as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.