

# 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 <sup>3</sup> )	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

- 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

- 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

#### Engine

##### 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

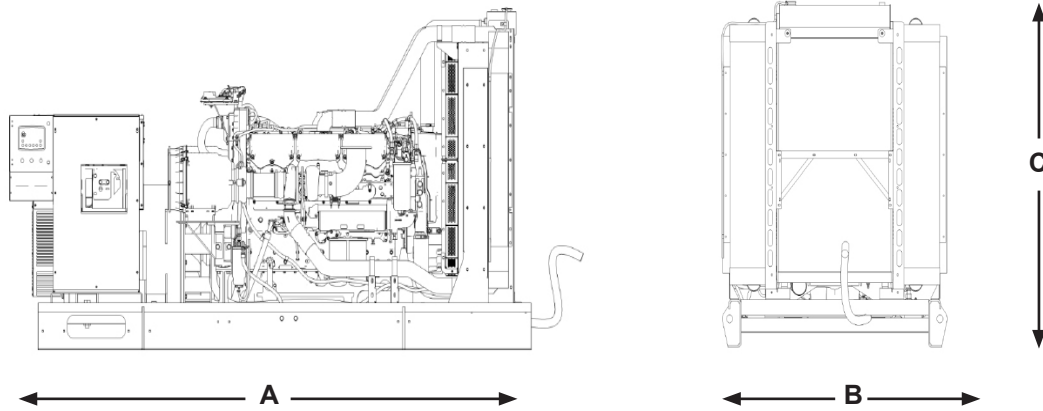


### Package Performance – D800 GC

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 <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)
Inlet Air		
Combustion air inlet flow rate – m <sup>3</sup> /min (cfm)	62.8	(2216.4)
Exhaust System		
Exhaust stack gas temperature – °C (°F)	511.4	(952.5)
Exhaust gas flow rate – m <sup>3</sup> /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 <sup>3</sup> (g/hp-h)	2580	(5.18)
CO mg/Nm <sup>3</sup> (g/hp-h)	115.1	(0.23)
HC mg/Nm <sup>3</sup> (g/hp-h)	12.5	(0.03)
PM mg/Nm <sup>3</sup> (g/hp-h)	9.7	(0.02)

\*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)
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.).

# LET'S DO THE WORK.™