



Caterpillar is leading the power generation marketplace with Power Solutions engineered to deliver unmatched flexibility, expandability, reliability, and cost-effectiveness.

Image shown may not reflect actual configuration

Specifications

Generator Set Specifications	
Rating (Natural Gas)	50 ekW (50 kVA)
Rating (LP Vapor)	50 ekW (50 kVA)
Voltage	240 Volts
Frequency	60 Hz
Speed	1800 rpm

Generator Set Configurations	
Emissions/Fuel Strategy	U.S. EPA Certified for Stationary Emergency Application

Engine Specifications		
Engine Model	5.7L V8, 4-cycle	
Bore	101.6 mm	4.0 in
Displacement	5.7 L	350 in ³
Stroke	88.4 mm	3.48 in
Compression Ratio	9.4:1	
Aspiration	Naturally Aspirated	
Governor Type	Electronic	
Fuel Type	Natural Gas, LP Vapor	
Fuel Pressure Operating Range*	2.7 - 3.5 kPa	11 - 14 in. water

Package Dimensions**		
Length	2117 mm	83.3 in
Width	1000 mm	39.4 in
Height	1360 mm	53.5 in
Weight†	920 kg	2028 lb

*Optional fuel pressure options may be available, please contact your local dealer.

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

†Weight includes: Oversize generator, skid base, circuit breaker, oil, and coolant.

Benefits & Features

Generator

- Matched to the performance and output characteristics of engine
- Industry-leading mechanical and electrical design
- Industry-leading motor starting capabilities
- High efficiency

Cat® EMCP Control Panel

The EMCP 4 controller features the reliability and durability you have come to expect from your Cat equipment. EMCP 4 is a scalable control platform designed to ensure reliable generator set operation, providing extensive information about power output and engine operation. EMCP 4 systems can be further customized to meet your needs through programming and expansion modules.

Design Criteria

- The generator set facilitates compliance with NFPA 110 and meets ISO 8528-5 requirements for transient response
- Cooling system designed to operate in 50°C/122°F ambient temperatures with an air flow restriction of 0.5 in. water

UL 2200/CSA – Optional

- UL 2200 Listed
- CSA Certified

Certain restrictions may apply. Consult with your Cat dealer.

Worldwide Product Support

Cat dealers provide extensive post-sale support including maintenance and repair agreements. Cat dealers have over 1,800 dealer branch stores operating in 200 countries.

Standard Equipment

Air Inlet

- Single element air filter

Cooling

- Radiator and cooling fan complete with protective guards
- Standard ambient temperatures up to 50°C (122°F)

Exhaust

- Exhaust outlet with 3" pipe

Fuel

- Natural Gas or LP Vapor
- Dual lock off valves
- NPT connection

Generator

- Matched to the performance and output characteristics of engine
- IP23 protection
- Integrated Voltage Regulator

Governor

- Electronic governor (non adjustable)

Control Panels

- EMCP 4.2 Series generator set controller

Mounting

- Rubber vibration isolators

Starting/Charging

- 12 volt starting motor
- Batteries with rack and cables

Optional Equipment

Generator

- Excitation: [] Permanent Magnet Excited (PM)
- Oversize and premium generators
- Anti Condensation heater

Starting/Charging

- Battery charger – UL Listed 10 amp
- Jacket water heater
- Battery heater
- Lube oil sump heater

General

- UL 2200 Listed
- CSA Certified
- Enclosures: sound attenuated, weather protective
- Automatic transfer switches (ATS)
- Suitable for Use as Service Equipment (SUSE)

DG50-2

50 ekW/ 50 kVA/ 60 Hz/ 1800 rpm/ 240V/ 1.0 Power Factor

Rating Type: STANDBY

Emissions: U.S. EPA Certified for Stationary Emergency Application



**DG50-2
50 ekW/ 50 kVA
60 Hz/ 1800 rpm/ 240V**

Image shown may not reflect actual configuration

Package Performance		
Fuel	Natural Gas	LP Vapor
Generator Set Power Rating with Fan @ 1.0 Power Factor	50 ekW	50 ekW
Generator Set Power Rating	50 kVA	50 kVA

Fuel Consumption with Natural Gas		
100% Load With Fan	20.9 m ³ /hr	738 ft ³ /hr
75% Load With Fan	18.1 m ³ /hr	640 ft ³ /hr
50% Load With Fan	13.9 m ³ /hr	490 ft ³ /hr

Fuel Consumption with LP Vapor		
100% Load With Fan	8.2 m ³ /hr	288 ft ³ /hr
75% Load With Fan	7.0 m ³ /hr	247 ft ³ /hr
50% Load With Fan	5.4 m ³ /hr	192 ft ³ /hr

Cooling System ¹		
Engine Coolant Capacity	7.8 L	2.1 gal
Radiator Coolant Capacity	8.8 L	2.3 gal
Engine Coolant Capacity with Radiator/Exp Tank	16.6 L	4.4 gal
Air Flow Restriction (System)	0.12 kPa	0.48 in. water

Inlet Air		
Combustion Air Inlet Flow Rate	4.9 m ³ /min	173 cfm

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50 ekW/ 50 kVA/ 60 Hz/ 1800 rpm/ 240V/ 1.0 Power Factor

Rating Type: **STANDBY**

Emissions: U.S. EPA Certified for Stationary Emergency Application

Exhaust System		
Exhaust Stack Gas Temperature	743°C	1369°F
Exhaust Gas Flow Rate	15.8 m ³ /min	553 cfm
Exhaust System Backpressure (maximum allowable)	10.2 kPa	40.9 in. water

Heat Rejection		
Heat Rejection to Coolant (total)	54.9 kW	3120 Btu/min
Heat Rejection to Atmosphere from Generator	5.1 kW	290 Btu/min

Alternator²		
Motor Starting Capability @ 30% Voltage Dip	114 skVA	
Frame	LCB1514P	
Temperature Rise	130°C	234°F
Excitation	Self Excited	

Lube System		
Sump Refill with Filter	4.7 L	1.24 gal

Emissions (Nominal)³	
NOx + HC	13.4 g/kW-hr
CO	519 g/kW-hr

¹ For ambient and altitude capabilities consult your Cat dealer. Air flow restriction (system) is added to the existing restriction from the factory.

² Generator temperature rise is based on a 40°C (104°F) ambient per NEMA MG1-32.

³ The nominal emissions data shown is subject to environment, instrumentation, measurement, facility and engine to engine variations.



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Rating Type: STANDBY

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DEFINITIONS AND CONDITIONS

Applicable Codes and Standards:

CSA C22.2 No 100-04, UL 489, UL 869, UL 2200, NFPA 37, NFPA 70, NFPA 99, NFPA 110, IBC, IEC60034-1, ISO3046, ISO8528, NEMA MG 1-22, NEMA MG 1-33.

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.

Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO3046 standard conditions.

Fuel Rates are based on heat values of 1015 BTU/SCF for Natural Gas and 2500 BTU/SFC for Propane Vapor @77°F (25°C) and 328 ft (100m) above sea level.

Additional ratings may be available for specific customer requirements, contact your Cat representative for details.

Feature Code: 57LGE02
Generator Arrangement: 467-6056
Date: 02/09/2016
Source Country: U.S.

LEHE1005-00

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