

Standby & Prime: 60Hz



Image shown might not reflect actual configuration

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

Model	Standby	Emission Strategy
DG50-2	50 kVA (50 ekW)	U.S. EPA Certified for Stationary Emergency Application

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.

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

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)

PACKAGE PERFORMANCE

Performance	Standby
Frequency	60 Hz
Genset power rating with fan	50 kVA
Genset power rating with fan @ 0.8 power factor	50 ekW
Fuel Consumption with Natural Gas	
100% load with fan, m ³ /hr (ft ³ /hr)	20.9 (738)
75% load with fan, m ³ /hr (ft ³ /hr)	18.1 (640)
50% load with fan, m ³ /hr (ft ³ /hr)	13.9 (490)
Fuel Consumption with LP Vapor	
100% load with fan, m ³ /hr (ft ³ /hr)	8.2 (288)
75% load with fan, m ³ /hr (ft ³ /hr)	7.0 (247)
50% load with fan, m ³ /hr (ft ³ /hr)	5.4 (192)
Cooling System¹	
Radiator air flow restriction (system), kPa (in. Water)	0.12 (0.48)
Engine coolant capacity, L (gal)	7.8 (2.1)
Radiator coolant capacity, L (gal)	8.8 (2.3)
Total coolant capacity, L (gal)	16.6 (4.4)
Inlet Air	
Combustion air inlet flow rate, m ³ /min (cfm)	4.9 (173)
Exhaust System	
Exhaust stack gas temperature, °C (°F)	743 (1369)
Exhaust gas flow rate, m ³ /min (cfm)	15.8 (553)
Exhaust system backpressure (maximum allowable), kPa (in. water)	10.2 (40.9)
Heat Rejection	
Heat rejection to coolant (total), kW (Btu/min)	54.9 (3120)
Heat rejection to atmosphere from generator, kW (Btu/min)	5.1 (290)
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, L (gal)	4.7 (1.24)
Emissions (Nominal)³	
NOx + HC, g/kW-hr	13.4
CO, g/kW-hr	519

PACKAGE DIMENSIONS**

Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
2117 (83.3)	1000 (39.4)	1360 (53.5)	920 (2028)

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

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.

DEFINITIONS AND CONDITIONS

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.

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/SCF 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.

Genset Ratings are based on ambient temperature of 77°F and elevation of 1200 ft above sea level.

For higher temperatures and elevations the following derate specifications are to be used:

Altitude: Derate 3.0% per every 1000ft (305 m.) above 1200ft (365 m.)

Temperature: Derate 1.0% per 10°F (5.55°C) temperature above 77°F (25°C)

LET'S DO THE WORK.™

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