

## 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 <sup>3</sup> )	5.7 (350)
Compression Ratio	9.4:1
Aspiration	Turbocharged
Fuel System	Natural Gas
Governor Type	Electronic
Fuel Pressure Operating Range*, kPa (in. water)	2.7 - 3.5 (11 - 14)

Model	Standby	Emission Strategy
DG80-2	100 kVA (80 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<sup>®</sup> 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 2" pipe

### Fuel

- Natural Gas
- 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

<b>Performance</b>		<b>Standby</b>	
Frequency		60 Hz	
Genset power rating with fan		100 kVA	
Genset power rating with fan @ 0.8 power factor		80 ekW	
<b>Fuel Consumption with Natural Gas</b>			
100% load with fan, m <sup>3</sup> /hr (ft <sup>3</sup> /hr)		26.3 (928)	
75% load with fan, m <sup>3</sup> /hr (ft <sup>3</sup> /hr)		23.8 (840)	
50% load with fan, m <sup>3</sup> /hr (ft <sup>3</sup> /hr)		17.9 (631)	
<b>Cooling System<sup>1</sup></b>			
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)	
<b>Inlet Air</b>			
Combustion air inlet flow rate, m <sup>3</sup> /min (cfm)		6.9 (244)	
<b>Exhaust System</b>			
Exhaust stack gas temperature, °C (°F)		722 (1332)	
Exhaust gas flow rate, m <sup>3</sup> /min (cfm)		22.3 (787)	
Exhaust system backpressure (maximum allowable), kPa (in. water)		10.2 (40.9)	
<b>Heat Rejection</b>			
Heat rejection to coolant (total), kW (Btu/min)		62.0 (3525)	
Heat rejection to atmosphere from generator, kW (Btu/min)		7.1 (404)	
<b>Alternator<sup>2</sup></b>		<b>480V</b>	<b>208V</b>
Motor Starting Capability @ 30% Voltage Dip		215 skVA	168 skVA
Frame		LC3114D	
Temperature Rise		105°C	221°F
Excitation		Self Excited	
<b>Lube System</b>			
Sump Refill with Filter, L (gal)		4.7 (1.24)	
<b>Emissions (Nominal)<sup>3</sup></b>			
NO <sub>x</sub> + 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)	1300 (51.2)	962 (2121)

\*\* 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

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

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

<sup>3</sup> 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 value for Natural Gas of 1015 BTU/SCF @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 2.5% per every 1000ft (305 m.) above 1200ft (365 m.)

Temperature: Derate 1.5% per 10°F (5.55°C) temperature above 77°F (25°C)

## LET'S DO THE WORK.™