DG 500

Gas Generator Sets

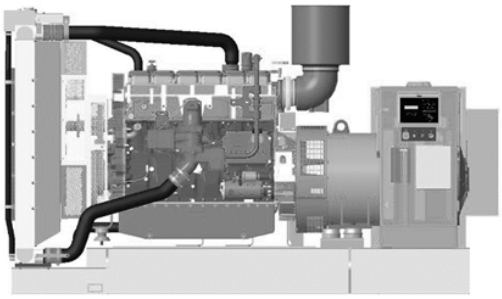


Image shown may not reflect actual configuration.

Engine Model	Cat® CG18 In-line 6, 4-cycle Natural Gas
Bore x Stroke	145mm x 183mm (5.7in x 7.2in)
Displacement	18.1 L (1106.3 in³)
Compression Ratio	10.5:1
Aspiration	Turbocharged, Air-to-Air Aftercooled
Fuel System	Venturi - Mixer
Governor	Electronic ADEM™ A4

Model	Standby / Demand Response Power ekW (kVA)	Emission Strategy
DG 500	**500 (625)**	**EPA Certified for Non-Emergency Operation**

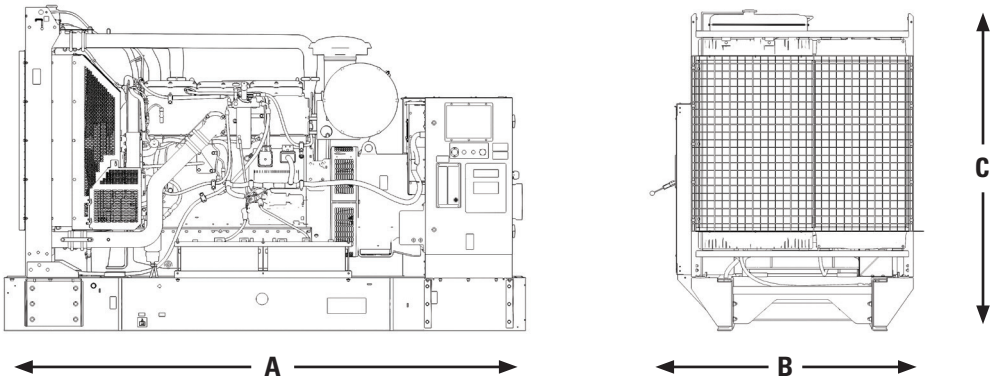
PACKAGE PERFORMANCE

Performance	Standby / Demand Response Power
Frequency, Hz	60
Genset power rating with fan, kVA	625
Genset power rating with fan @ 0.8 power factor, ekW	500
Fuel Consumption	
Operating Fuel Pressure-Standard# PSI	2.0-5.0
Operating Fuel Pressure-Low Pressure# (Optional) PSI	0.3-5.0
100% load with fan, CFH	5353
75% load with fan, CFH	4225
50% load with fan, CFH	3043
Cooling System[1]	
Radiator air flow restriction (system), kPa (in. Water)	TBD
Engine coolant capacity, L (gal)	27 (7.2)
Radiator coolant capacity, L (gal)	62 (16.4)
Total coolant capacity, L (gal)	89 (23.6)
Inlet Air	
Combustion air inlet flow rate, Kg/hr	3390
Exhaust System	
Exhaust stack gas temperature, °C (°F)	520 (968)
Exhaust gas flow rate, kg/hr	3490
Exhaust system backpressure (minimum allowable), kPa (in. water)	1 (4.02)
Exhaust system backpressure (maximum allowable), kPa (in. water)	5 (20.1)
Heat Rejection	
Heat rejection to coolant (total), kW (Btu/min)	371 (21098)
Heat rejection to atmosphere to Aftercooler, kW (Btu/min)	215 (12227)
Heat rejection to atmosphere from engine, kW (Btu/min)	230 (13080)
Heat rejection to exhaust (total) kW (Btu/min)	364 (20725)

Lube System	
Sump Refill with Filter, L (gal)	40 (10.6)

Alternator[2]	60 Hz				
Voltages V	480/277	240/139	208/120	240/120	600/346
Motor starting capability @ 30% Voltage Dip, skVA	1428	1428	1116	1116	1712
Current, amps	752	1504	1735	1504	601
Temperature Rise, °C	130/40	130/40	130/40	130/40	130/40
Frame Size	LC6114F	LC6114F	LC6114G	LC6114G	LC6124F
Excitation	SE	SE	SE	SE	AREP

WEIGHTS & DIMENSIONS



Note: General configuration not to be used for installation. See general dimension drawings for detail.

Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
3584 (141.1)	1845 (72.6)	2085 (82.0)	4863 (10721)

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, ISO 3046, ISO 8528, 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.

[#] Operating Fuel Pressure is the fuel pressure required to be delivered at the genset base frame rail connection

STANDBY / DEMAND RESPONSE POWER: 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 ISO 3046 standard conditions.

1 CFH = 1000 BTU/HR

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.

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 (305m.) 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.™

LEHE20517-01 (09/21)