Cat® C9 DIESEL GENERATOR SETS



Standby: 50Hz, 230, 380, 400V & 415V



Engine Model	Cat® C9 ACERT™ In-line 6, 4-cycle diesel
Bore x Stroke	112mm x 149mm (4.4in x 5.9in)
Displacement	8.8 L (538 in ³)
Compression Ratio	16.1:1
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel Injection System	MEUI
Governor	Electronic ADEM™ A4

Model	Standby	Prime	Emission Strategy		
DE250E0	250 kVA, 200 ekW	230 kVA, 184 ekW	Non-Certified Emissions		

PACKAGE PERFORMANCE

Performance	Standby	Prime
Frequency	50 Hz	50 Hz
Genset Power Rating	250 kVA	230 kVA
Gen set power rating with fan @ 0.8 power factor	200 ekW	184 ekW
Fuelling strategy	Non-Certified Emissions	Non-Certified Emissions
Performance Number	EM0879	EM1036
Fuel Consumption		
100% load with fan	52.4 L/hr 13.8 gal/hr	48.4 L/hr 12.7 gal/hr
75% load with fan	40.3 L/hr, 10.6 gal/hr	37.7 L/hr, 9.9 gal/hr
50% load with fan	29.1 L/hr, 7.6 gal/hr	27.4 L/hr, 7.2 gal/hr
25% load with fan	18.3 L/hr, 4.8 gal/hr	17.6 L/hr, 4.6 gal/hr
Cooling System ¹		
Radiator air flow restriction (system)	0.12 kPa, 0.48 in. Water	0.12 kPa, 0.48 in. Water
Radiator air flow	409 m³/min, 14443 cfm	409 m³/min, 14443 cfm
Engine coolant capacity	13.9 L, 3.7 gal	13.9 L, 3.7 gal
Radiator coolant capacity	43 L, 11.5 gal	43 L, 11.5 gal
Total coolant capacity	56.9 L, 15.2 gal	56.9 L, 15.2 gal
Inlet Air		
Combustion air inlet flow rate	15.2 m³/min, 537 cfm	15.2 m³/min, 537 cfm
Max. Allowable Combustion Air Inlet Temp	48 °C, 118 °F	48 °C, 118 °F
Exhaust System		
Exhaust stack gas temperature	470 °C, 879 °F	463 °C, 866 °F
Exhaust gas flow rate	39.1 m³/min, 1381 cfm	36.3 m³/min, 1282 cfm
Exhaust system backpressure (maximum allowable)	10.0 kPa, 40.0 in. water	10.0 kPa, 40.0 in. water
Heat Rejection		
Heat rejection to jacket water	103 kW, 5857 Btu/min	97.4 kW, 5539 Btu/min
Heat rejection to exhaust (total)	162 kW, 9213 Btu/min	150 kW, 8530 Btu/min
Heat rejection to aftercooler	28 kW, 1592 Btu/min	25.5 kW, 1450 Btu/min
Heat rejection to atmosphere from engine	33 kW, 1877 Btu/min	28.2 kW, 1603 Btu/min

LEHE1614-00 1/2

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Emissions (Nominal) ²								
NOx	4553.4 mg/Nm ³ , 9.6 g/hp-hr				4560 mg/Nm³, 9.6 g/hp-hr			
CO	1342 mg/Nm³, 2.82 g/hp-hr			565 mg/Nm³, 1.2 g/hp-hr				
HC	27.1 mg/Nm³, 0.06 g/hp-hr			17.8 mg/Nm³, 0.04 g/hp-hr				
PM	59.6 mg/Nm³, 0.16 g/hp-hr			26.6 mg/Nm³, 0.07 g/hp-hr				
Alternator ³								
Voltages	230V		380V		400V		415V	
Motor Starting Capability @ 30% Voltage Dip	546 skVA		493 skVA		546 skVA		588 skVA	
Current	690 amps		403 amps		397 amps		362 amps	
Frame Size	R2475L4		R2475L4		R2475L4		R2475L4	
Excitation	SE		SE		SE		SE	
Temperature Rise	130 °C	266 °F	130 °C	266 °F	130 °C	266 °F	130 °C	266 °F

DEFINITIONS AND CONDITIONS

APPLICABLE CODES AND STANDARDS:

AS1359, CSA C22.2 No100-04, UL142, UL489, UL869, UL2200, NFPA37, NFPA70, NFPA99, NFPA110, IBC, IEC60034-1, ISO3046, ISO8528, NEMA MG1-22, NEMA MG1-33, 2006/95/EC, 2006/42/EC, 2004/108/EC.

Note: Codes may not be available in all model configurations. Please consult your local Cat Dealer representative for availability.

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.

PRIME: Output available with varying load for an unlimited time. Average power output is 70% of the prime power rating. Typical peak demand is 100% of prime rated ekW with 10% overload capability for emergency use for a maximum of 1 hour in 12. Overload operation cannot exceed 25 hours per year

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

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/litre (7.001 lbs/U.S. gal.). Additional ratings may be available for specific customer requirements, contact your Caterpillar representative for details. For information regarding Low Sulfur fuel and Biodiesel capability, please consult your Cat dealer.

LEHE1614-00 (07/18)

BUILT FOR IT

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

² Emissions data measurement procedures are consistent with those described in EPA CFR 40 Part 89, Subpart D & E and ISO8178-1 for measuring HC, CO, PM, NOx. Data shown is based on steady state operating conditions of 77° F, 28.42 in HG and number 2 diesel fuel with 35° API and LHV of 18,390 BTU/lb. The nominal emissions data shown is subject to instrumentation, measurement, facility and engine to engine variations. Emissions data is based on 100% load and thus cannot be used to compare to EPA regulations which use values based on a weighted cycle.

³ UL 2200 Listed packages may have oversized generators with a different temperature rise and motor starting characteristics. Generator temperature rise is based on a 40° C ambient per NEMA MG1-32.