

Standby & Prime: 60 Hz, 480V (3Ph) & 240V (1Ph)



Engine Model	Cat® C4.4 In-line 4, 4-cycle diesel
Bore x Stroke	105mm x 127mm (4.1in x 5.0 in)
Displacement	4.4 L (269 in ³)
Compression Ratio	16.7:1
Aspiration	Turbocharged
Fuel Injection System	Common Rail

Standby	Prime	Performance Strategy
80 ekW	72 ekW	EPA TIER III

PACKAGE PERFORMANCE

Performance	Standby		Prime	
	3-Phase	1-Phase	3-Phase	1-Phase
Genset power rating	100 kVA	80 kVA	90 kVA	72 kVA
Genset power rating with fan @ 0.8 power factor	80 ekW	80 ekW	72 ekW	72 ekW
Performance number	P4510A	P4510A	P4510C	P4510C
Fuel Consumption				
100% Load with fan	23.7 L/hr, 6.3 gal/hr	24.1 L/hr, 6.4 gal/hr	21.9 L/hr, 5.8 gal/hr	22.2 L/hr, 5.9 gal/hr
75% Load with fan	19.0 L/hr, 5.0 gal/hr	19.2 L/hr, 5.1 gal/hr	17.5 L/hr, 4.6 gal/hr	17.7 L/hr, 4.7 gal/hr
50% Load with fan	13.9 L/hr, 3.7 gal/hr	14.0 L/hr, 3.7 gal/hr	12.9 L/hr, 3.4 gal/hr	13.0 L/hr, 3.4 gal/hr
Cooling System¹				
Radiator air flow restriction (system)	0.12 kPa 0.48 in. water		0.12 kPa 0.48 in water	
Engine coolant capacity	7.0 L 1.8 gal		7.0 L 1.8 gal	
Radiator coolant capacity	10.0 L 2.6 gal		10.0 L 2.6 gal	
Total coolant capacity	17.0 L, 4.4 gal		17.0 L, 4.4 gal	
Inlet Air				
Combustion air inlet flow rate	7.8 m ³ /min, 275 cfm	7.8 m ³ /min, 275 cfm	7.7 m ³ /min, 274 cfm	7.7 m ³ /min, 274 cfm
Max. allowable combustion air inlet temp	45°C, 113°F			
Exhaust System				
Exhaust stack gas temperature	630°C, 1166°F	630°C 1166°F	608°C, 1126°F	608°C, 1126°F
Exhaust gas flow rate	17.6 m ³ /min, 620 cfm	17.6 m ³ /min, 621 cfm	16.8 m ³ /min, 594 cfm	16.8 m ³ /min, 594 cfm
Exhaust system backpressure (maximum allowable)	15.0 kPa, 60.2 in. water	15.0 kPa, 60.2 in water	15.0 kPa, 60.2 in. water	15.0 kPa, 60.2 in water
Exhaust flange size (internal diameter)	64 mm, 2.5 in	64 mm, 2.51 in	64 mm, 2.51 in	64.0 mm, 2.51in
Heat Rejection				
Heat rejection to Coolant (total)	47.9 kW, 2724 Btu/min	47.9 kw, 2724 Btu/min	44.3 kW, 2519 Btu/min	44.3 kW, 2519 Btu/min
Heat rejection to Exhaust (total)	77.7 kW, 4419 Btu/min	77.7 kw, 4419 Btu/min	73.3 kW, 4168 Btu/min	73.3 kW, 4168 Btu/min
Heat rejection to Atmosphere from Engine	13.5 kW, 768 Btu/min	13.5 kw, 768 Btu/min	13.0 kW, 740 Btu/min	13.0 kW, 740 Btu/min
Heat rejection from Alternator	7.1 kW, 404 Btu/min	8.9 kw, 506.1 Btu/min	6.3 kW, 358.3 Btu/min	7.8 kW, 443.6 Btu/min
Lube System				
Sump refill with filter	8.4 L, 2.2 gal	8.0 L, 2.1 gal	8.4 L, 2.2 gal	8.4 L, 2.2 gal

Emissions (Nominal) ²	Standby		Prime	
	3-Phase	1-Phase	3-Phase	1-Phase
NOx + HC	3.6 g/kW-hr	3.6 g/kW-hr	3.6 g/kW-hr	3.6 g/kW-hr
CO	0.9 g/kW-hr	0.9 g/kW-hr	0.9 g/kW-hr	0.9 g/kW-hr
PM	0.12 g/kW-hr	0.12 g/kW-hr	0.12 g/kW-hr	0.12 g/kW-hr
Alternator ³				
Voltages	480V	240V	480V	240V
Motor starting capability @ 30% Voltage Dip	215 skVA	182 skVA	215 skVA	182 skVA
Frame Size	LC3114D	LCB3114D	LC3114D	LCB3114D
Excitation	Self Excited	Self Excited	Self Excited	Self Excited
Temperature Rise	105°C, 189°F	130°C, 234°F	80°C, 144°F	105°C, 189°F

DEFINITIONS AND CONDITIONS

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

² The nominal emissions data shown is subject to instrumentation, measurement, facility and engine to engine variations. Emissions data is based on 100% Prime load. This information should not be used for permitting purposes and is subject to change without notice. Contact your Caterpillar dealer for further details.

³ Generator temperature rise is based on a 40°C (104°F) ambient per NEMA MG1-32

APPLICABLE CODES AND STANDARDS:

AS1359, CSA C22.2 No 100-04, UL142, UL489, UL601, UL869, UL2200, NFPA 37, NFPA 70, NFPA 99, NFPA 110, IBC, IEC60034-1, ISO3046, ISO8528, NEMA MG 1-22, NEMA MG 1-33, 72/23/EEC, 98/37/EC, 2004/108/EC.

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 kW with 10% overload capability for emergency use for a maximum of 1 hour in 12. Overload operation cannot exceed 25 hours per year.

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 fuel oil to specification EPA 2D 89.330-96 with a density of 0.845 – 0.850 kg/L (7.052 – 7.094 lbs/U.S. gal.) @ 15°C (59°F) and fuel inlet temperature 40°C (104°F). Additional ratings may be available for specific customer requirements, contact your Cat representative for details.

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