

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	18.2:1
Aspiration	Turbocharged
Fuel Injection System	Common Rail

Standby	Prime	Performance Strategy
50 kW	45 kW	EPA TIER III

PACKAGE PERFORMANCE

Performance	Standby		Prime	
	3-Phase	1-Phase	3-Phase	1-Phase
Genset power rating	63 kVA	50 kVA	50 kVA	45 kVA
Genset power rating with fan @ 0.8 power factor	50 kW	50 kW	45 kW	45 kW
Performance number	P3454A-00	P3454A-00	P3454B-00	P3454B-00
Fuel Consumption				
100% Load with fan	16.8 L/hr, 4.4 gal/hr	16.4 L/hr, 4.3 g/hr	16.8 L/hr, 4.4 gal/hr	14.7 L/hr, 3.9 g/hr
75% Load with fan	12.8 L/hr, 3.4 gal/hr	12.4 L/hr, 3.3 g/hr	12.8 L/hr, 3.4 gal/hr	11.3 L/hr, 3.0 g/hr
50% Load with fan	9.3 L/hr, 2.5 gal/hr	9.0 L/hr, 2.4 g/hr	9.3 L/hr, 2.5 gal/hr	8.3 L/hr, 2.2 g/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	9.5 L, 2.5 gal		9.5 L, 2.5 gal	
Total coolant capacity	16.5 L, 4.3 gal		16.5 L, 4.30 gal	
Inlet Air				
Combustion air inlet flow rate	5.3 m ³ /min, 187.2 cfm	5.3 m ³ /min, 187.2 cm	5.2 m ³ /min, 183.6 cfm	5.2 m ³ /min, 183.6 cm
Max. allowable combustion air inlet temp	45°C, 113°F			
Exhaust System				
Exhaust stack gas temperature	571°C, 1060°F	571°C, 1060°F	532°C, 990°F	532°C, 990°F
Exhaust gas flow rate	13.7 m ³ /min, 483.8 cfm	13.7 m ³ /min, 484 cfm	12.8 m ³ /min, 452.0 cfm	12.8 m ³ /min, 452 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)	63.5 mm, 2.5 in	63.5 mm, 2.5 in	63.5 mm, 2.5 in	63.5 mm, 2.5 in
Heat Rejection				
Heat rejection to Coolant (total)	46.1 kW, 2622 Btu/min	46.1 kw, 2622 Btu/min	46.1 kW, 2622 Btu/min	42.3 kw, 2406 Btu/min
Heat rejection to Exhaust (total)	66.9 kW, 3805 Btu/min	66.9 kw, 3805 Btu/min	66.9 kW, 3805 Btu/min	59.3 kw, 3372 Btu/min
Heat rejection to Atmosphere from Engine	14.9 kW, 847.3 Btu/min	14.9 kw, 847.3 Btu/min	14.9 kW, 847.3 Btu/min	12.5 kw, 710.9 Btu/min
Heat rejection from Alternator	5.2 kW, 295.7 Btu/min	5.1 kw, 290.0 Btu/min	5.2 kW, 295.7 Btu/min	4.3 kw, 244.5 Btu/min
Lube System				
Sump refill with filter	8.4 L, 2.2 gal	8.4 L, 2.2 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	4.42 g/kW-hr	4.42 g/kW-hr	4.42 g/kW-hr	4.42 g/kW-hr
CO	1.02 g/kW-hr	1.02 g/kW-hr	1.02 g/kW-hr	1.02 g/kW-hr
PM	0.26 g/kW-hr	0.18 g/kW-hr	0.26 g/kW-hr	0.18 g/kW-hr
Alternator ³				
Voltages	480V	240V	480V	240V
Motor starting capability @ 30% Voltage Dip	131 skVA	114 skVA	131 skVA	114 skVA
Frame Size	LC1514N	LCB1514P	LC1514N	LCB1514P
Excitation	Self Excited	Self Excited	Self Excited	Self Excited
Temperature Rise	130°C, 234°F	130°C, 234°F	105°C, 189°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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