

Standby & Prime: 60 Hz, 480V & 600V



Engine Model	Cat® C15 ACERT™ In-line 6, 4-cycle diesel
Bore x Stroke	137mm x 171mm (5.4in x 6.8in)
Displacement	15.2 L (928 in³)
Compression Ratio	16.1:1
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel Injection System	MEUI
Governor	Electronic ADEM™ A4

Standby	Prime	Performance Strategy
450 ekW, 563 kVA	410 ekW, 513 kVA	TIER III Non-Road

PACKAGE PERFORMANCE

Performance	Standby		Prime	
Frequency	60 Hz		60 Hz	
Genset power rating	563 kVA		513 kVA	
Genset power rating with fan @ 0.8 power factor	450 ekW		410 ekW	
Fuelling strategy	TIER III Non-Road		TIER III Non-Road	
Performance number	DM8153-05		DM8152-04	
Fuel Consumption				
100% load with fan	131.7 L/hr	34.8 gal/hr	121.7 L/hr	32.2 gal/hr
75% load with fan	106.1 L/hr	28.0 gal/hr	99.1 L/hr	26.2 gal/h
50% load with fan	79.1 L/hr	20.9 gal/hr	72.9 L/hr	19.3 gal/hr
25% load with fan	45.1 L/hr	11.9 gal/hr	41.9 L/hr	11.1 gal/hr
Cooling System¹				
Radiator air flow restriction (system)	0.12 kPa	0.48 in. Water	0.12 kPa	0.48 in. Water
Radiator air flow	720 m³/min	25426 cfm	720 m³/min	25426 cfm
Engine coolant capacity	20.8 L	5.5 gal	20.8 L	5.5 gal
Radiator coolant capacity	54 L	14 gal	54 L	14 gal
Total coolant capacity	75 L	20 gal	75 L	20 gal
Inlet Air				
Combustion air inlet flow rate	41.9 m³/min	1479.3 cfm	40.1 m³/min	1415.0 cfm
Max. allowable combustion air inlet temp	48 ° C	118 ° F	47 ° C	116 ° F
Exhaust System				
Exhaust stack gas temperature	491.3 ° C	916.3 ° F	482.0 ° C	899.6 ° F
Exhaust gas flow rate	111.3 m³/min	3929.1 cfm	104.9 m³/min	3702.6 cfm
Exhaust system backpressure (maximum allowable)	10.0 kPa	40.0 in. water	N/A	N/A
Heat Rejection				
Heat rejection to Jacket Water	177 kW	10047 Btu/min	166 kW	9450 Btu/min
Heat rejection to Exhaust (Total)	505 kW	28699 Btu/min	470 kW	26711 Btu/min
Heat rejection to Aftercooler	133 kW	7546 Btu/min	119 kW	6778 Btu/min
Heat rejection to Atmosphere from Engine	70 kW	4000 Btu/min	71 kW	4025 Btu/min
Heat rejection from alternator	26 kW	1462 Btu/min	23 kW	1302 Btu/min

Emissions (Nominal) ²	Standby		Prime	
	NOx	1704.7 mg/Nm ³	3.7 g/hp-hr	1519.4 mg/Nm ³
CO	118.2 mg/Nm ³	0.3 g/hp-hr	199.2 mg/Nm ³	0.4 g/hp-hr
HC	10.6 mg/Nm ³	0.0 g/hp-hr	14.3 mg/Nm ³	0.0 g/hp-hr
PM	9.9 mg/Nm ³	0.0 g/hp-hr	10.9 mg/Nm ³	0.0 g/hp-hr
Alternator ³	Standby		Prime	
	Voltages	480V	600V	480V
Motor starting capability @ 30% Voltage Dip	1089 skVA	1714 skVA	1089 skVA	1714 skVA
Current	677 amps	541 amps	616 amps	493 amps
Frame Size	LC6114D	LC6124F	LC6114D	LC6124F
Excitation	SE	AR	SE	AR
Temperature Rise	130 ° C	105 ° C	105 ° C	105 ° C

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 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.

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.

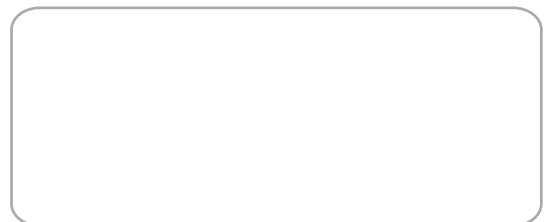
STANDBY: Output available with varying load for the duration of the interruption of the normal source power. Average power output is 70% of the standby power rating. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

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

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