

**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
<b>500 ekW, 625 kVA</b>	<b>455 ekW, 569 kVA</b>	<b>TIER II Non-Road</b>

## PACKAGE PERFORMANCE

Performance	Standby		Prime	
Frequency	60 Hz		60 Hz	
Genset Power Rating	625 kVA		569 kVA	
Genset power rating with fan @ 0.8 power factor	500 ekW		455 ekW	
Fuelling strategy	TIER II Non-Road		TIER II Non-Road	
Performance number	DM8155-04		DM8154-05	
<b>Fuel Consumption</b>				
100% Load with fan	137.0 L/hr	36.2 gal/hr	129.8 L/hr	34.3 gal/hr
75% Load with fan	110.5 L/hr	29.2 gal/hr	99.9 L/hr	26.4 gal/hr
50% Load with fan	71.3 L/hr	18.8 gal/hr	65.6 L/hr	17.3 gal/hr
25% Load with fan	41.9 L/hr	11.1 gal/hr	39.3 L/hr	10.4 gal/hr
<b>Cooling System<sup>1</sup></b>				
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
<b>Inlet Air</b>				
Combustion air inlet flow rate	38.2 m³/min	1347.7 cfm	38.2 m³/min	1349.2 cfm
Max. allowable combustion air inlet temp	49 ° C	120 ° F	49 ° C	120 ° F
<b>Exhaust System</b>				
Exhaust stack gas temperature	531.1 ° C	988.0 ° F	524.4 ° C	975.9 ° F
Exhaust gas flow rate	102.1 m³/min	3605.5 cfm	101.2 m³/min	3573.4 cfm
Exhaust system backpressure (maximum allowable)	10.0 kPa	40.0 in. water	10.0 kPa	40.0 in. water
<b>Heat Rejection</b>				
Heat rejection to Jacket Water	182 kW	10375 Btu/min	172 kW	9792 Btu/min
Heat rejection to Exhaust (Total)	493 kW	28039 Btu/min	483 kW	27453 Btu/min
Heat rejection to Aftercooler	121 kW	6860 Btu/min	120 kW	6827 Btu/min
Heat rejection to Atmosphere from Engine	91 kW	5182 Btu/min	87 kW	4936 Btu/min
Heat rejection from alternator	29 kW	1655 Btu/min	26 kW	1479 Btu/min

Emissions (Nominal) <sup>2</sup>	Standby		Prime	
	NOx	2129.1 mg/Nm <sup>3</sup>	4.6 g/hp-hr	1554.5 mg/Nm <sup>3</sup>
CO	301.5 mg/Nm <sup>3</sup>	0.6 g/hp-hr	362.9 mg/Nm <sup>3</sup>	0.8 g/hp-hr
HC	8.8 mg/Nm <sup>3</sup>	0.0 g/hp-hr	12.2 mg/Nm <sup>3</sup>	0.0 g/hp-hr
PM	9.5 mg/Nm <sup>3</sup>	0.0 g/hp-hr	11.9 mg/Nm <sup>3</sup>	0.0 g/hp-hr
Alternator <sup>3</sup>	Standby		Prime	
	Voltages	480V	600V	480V
Motor starting capability @ 30% Voltage Dip	1428 skVA	1714 skVA	1428 skVA	1714 skVA
Current	752 amps	601 amps	684 amps	547 amps
Frame Size	LC6114F	LC6124F	LC6114F	LC6124F
Excitation	SE	AR	SE	AR
Temperature Rise	130 ° C	130 ° C	105 ° C	105 ° C

## DEFINITIONS AND CONDITIONS

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

<sup>2</sup> 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.

<sup>3</sup> 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 to 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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