

## Standby & Prime: 50Hz



Image shown might not reflect actual configuration

Engine Model	Cat® C15 In-line 6, 4-cycle Diesel
Bore x Stroke	137mm x 171mm (5.4in x 6.8in)
Displacement	15.2 L (928 in <sup>3</sup> )
Compression Ratio	16.1:1
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel Injection System	MEUI
Governor	Electronic ADEM™ A4 - G3 Class* capable

Model	Standby	Prime	Emission Strategy
DE500E0	500 kVA, 400 ekW	450 kVA, 360 ekW	Non-Certified Emissions

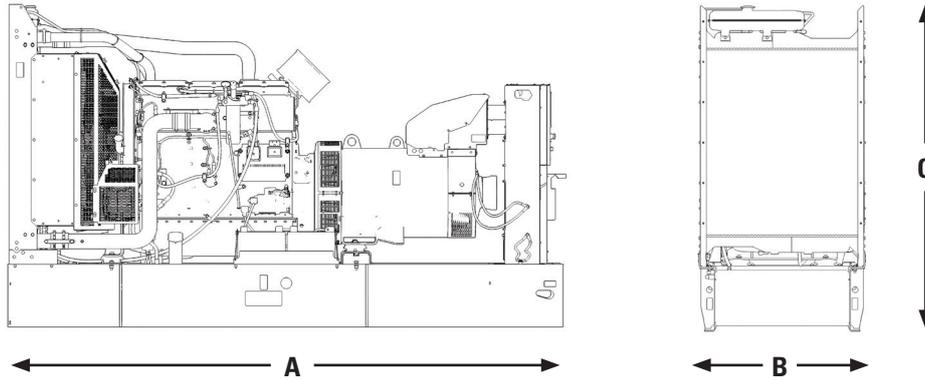
## PACKAGE PERFORMANCE

Performance	Standby	Prime
Frequency	50 Hz	
Genset Power Rating	500 kVA	450 kVA
Genset power rating with fan @ 0.8 pf	400 ekW	360 ekW
Emissions	Non-Certified Emissions	
Performance Number	DM8491	DM8490
<b>Fuel Consumption</b>		
100% load with fan, L/hr (gal/hr)	100.9 (26.6)	91.9 (24.2)
75% load with fan, L/hr (gal/hr)	75.7 (20.6)	69.9 (18.4)
50% load with fan, L/hr (gal/hr)	53.8 (14.6)	50.1 (13.2)
25% load with fan, L/hr (gal/hr)	32.5 (8.8)	30.7 (8.1)
<b>Cooling System<sup>1</sup></b>		
Radiator air flow restriction (system), kPa (in. water)	0.12 (0.48)	
Radiator air flow, m <sup>3</sup> /min (CFM)	476 (16809)	
Engine coolant capacity, L (gal)	20.8 (5.5)	
Radiator coolant capacity, L (gal)	37 (9.7)	
Total coolant capacity, L (gal)	57.8 (15.2)	
<b>Inlet Air</b>		
Combustion air inlet flow rate, m <sup>3</sup> /min (CFM)	29.3 (1036.4)	27.3 (965.0)
Max. allowable air intake restriction, kPa	3.7 (clean element) / 6.2 (dirty element)	
<b>Exhaust System</b>		
Exhaust stack gas temperature, °C (°F)	523.6 (974.4)	515.3 (959.5)
Exhaust gas flow rate, m <sup>3</sup> /min (CFM)	79.4 (2802.2)	73.1 (2580.2)
Exhaust system backpressure (maximum allowable), kPa (in. water)	10 (40)	10 (40)
<b>Heat Rejection</b>		
Heat rejection to jacket water, kW (BTU/min)	151 (8583)	139 (7923)
Heat rejection to exhaust (total), kW (BTU/min)	377 (21425)	344 (19561)
Heat rejection to aftercooler, kW (BTU/min)	71 (4053)	61 (3450)
Heat rejection to atmosphere from engine, kW (BTU/min)	44 (2477)	42 (2396)

Emissions (Nominal) <sup>2</sup>	Standby	Prime
NO <sub>x</sub> , mg/Nm <sup>3</sup> (g/hp-hr)	4185.1 (8.22)	3357.6 (6.6)
CO, mg/Nm <sup>3</sup> (g/hp-hr)	320.1 (0.63)	159.3 (0.3)
HC, mg/Nm <sup>3</sup> (g/hp-hr)	9.7 (0.02)	6.6 (0.0)
PM, mg/Nm <sup>3</sup> (g/hp-hr)	15.1 (0.04)	8.8 (0.0)

Alternator <sup>3</sup>							
Duty Cycle		Standby			Prime		
Phase		3-Phase			3-Phase		
Voltages, V		380	400	415	380	400	415
Current, Amps		760	722	696		650	626
Frame: LC6114D Excitation: SE	Temperature Rise, @ 40°C	163	163	163			
	Motor Starting Capability @ 30% Voltage Dip, skVA	840	923	987			
Frame: LC6114F Excitation: SE	Temperature Rise, @ 40°C	130	130	130			
	Motor Starting Capability @ 30% Voltage Dip, skVA	1106	1213	1296			
Frame: A2985L4 Excitation: SE	Temperature Rise, @ 40°C	150	130	130			
	Motor Starting Capability @ 30% Voltage Dip, skVA	1165	1291	1391			
Frame: A2975L4 Excitation: SE	Temperature Rise, @ 40°C		163	163		125	125
	Motor Starting Capability @ 30% Voltage Dip, skVA		1339	1439		1339	1439

## WEIGHTS & DIMENSIONS



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
3830 (151)	1130 (44)	2255 (89)	3700 (8157)

**Note:** General configuration not to be used for installation. See general dimension drawings for detail.

### APPLICABLE CODES AND STANDARDS:

AS1359, IEC60034-1, ISO3046, ISO8528, NEMA MG1-33, EAC,CE,UKCA.  
 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:** Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO3046 standard conditions.

### 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> Generator temperature rise is based on a 40° C ambient per IEC60034-1.

\* Governing Class capability as per ISO8528-5. Consult your local Cat dealer for configuration and site specific transient performance classification.

## LET'S DO THE WORK.™

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