Cat® C15
Diesel Generator Sets

Standby & Prime: 50 Hz



Image shown might not reflect actual configuration.

Engine Model	Cat® C15 In-line 6, 4-cycle Diesel
Bore x Stroke	137 mm x 171 mm (5.4 in x 6.8 in)
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 – G3 Class* capable

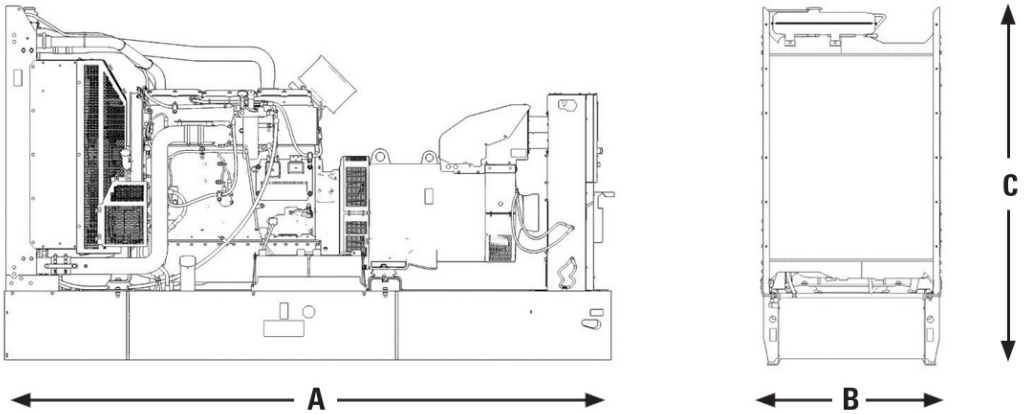
Model	Standby	Prime	Emission Strategy
DE550E0	550 kVA, 440 ekW	500 kVA, 400 ekW	Non-Certified Emissions

PACKAGE PERFORMANCE

Performance	Standby	Prime
Frequency	50 Hz	
Genset Power Rating	550 kVA	500 kVA
Genset power rating with fan @ 0.8 power factor	440 ekW	400 ekW
Emissions	Non-Certified Emissions	
Performance Number	DM8495	DM8494
Fuel Consumption		
100% load with fan, L/hr (gal/hr)	109.4 (28.9)	99.2 (26.2)
75% load with fan, L/hr (gal/hr)	81.8 (21.6)	74.1 (19.5)
50% load with fan, L/hr (gal/hr)	57.5 (15.2)	52.5 (13.8)
25% load with fan, L/hr (gal/hr)	34.6 (9.1)	31.8 (8.4)
Cooling System[1]		
Radiator air flow restriction (system), kPa (in. water)	0.12 (0.48)	0.12 (0.48)
Radiator air flow, m³/min (CFM)	476 (16810)	476 (16810)
Engine coolant capacity, L (gal)	20.8 (5.5)	20.8 (5.5)
Radiator coolant capacity, L (gal)	27 (7.1)	27 (7.1)
Total coolant capacity, L (gal)	47.8 (12.6)	47.8 (12.6)
Inlet Air		
Combustion air inlet flow rate, m³/min (CFM)	29.9 (1056.8)	28.1 (992.2)
Max. Allowable Combustion Air Inlet Temp, °C (°F)	3.7 (clean element) / 6.2 (dirty element)	
Exhaust System		
Exhaust stack gas temperature, °C (°F)	527.0 (980.5)	511.3 (952.4)
Exhaust gas flow rate, m³/min (CFM)	86.0 (3037.7)	79.2 (2797.7)
Exhaust system backpressure (maximum allowable), kPa (in water)	10.0 (40.0)	10.0 (40.0)
Heat Rejection		
Heat rejection to jacket water, kW (BTU/min)	166 (9441)	149 (8458)
Heat rejection to exhaust (total) kW (BTU/min)	398 (22635)	360 (20485)
Heat rejection to aftercooler, kW (BTU/min)	83 (4715)	75 (4272)
Heat rejection to atmosphere from engine, kW (BTU/min)	70 (3975)	46 (2605)
Emissions (Nominal)[2]		
NO_x, mg/Nm³ (g/hp-hr)	3689.6 (7.2)	3438.4 (6.8)
CO, mg/Nm³ (g/hp-hr)	168.2 (0.3)	170.2 (0.3)
HC, mg/Nm³ (g/hp-hr)	5.8 (0.01)	5.3 (0.01)
PM, mg/Nm³ (g/hp-hr)	7.0 (0.02)	7.9 (0.02)

Alternator[3]								
Duty Cycle		Standby			Prime		
Phase		3-Phase			3-Phase		
Voltages, V		380	400	415	380	400	415
Current Amps		836	794	765	760	722	696
Frame: LC6114F Excitation: SE	Temperature Rise, @ 40°C	163	163	163	125	125	125
	Motor Starting Capability @ 30% Voltage Dip skVA	1106	1213	1296	1106	1213	1296
Frame: LC6114G Excitation: SE	Temperature Rise, @ 40°C	130	130	130	105	105	105
	Motor Starting Capability @ 30% Voltage Dip skVA	1117	1227	1311	1117	1227	1311
Frame: A2985L4 Excitation: SE	Temperature Rise, @ 40°C		150	150		125	125
	Motor Starting Capability @ 30% Voltage Dip skVA		1291	1391		1291	1391

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, ISO 3046, ISO 8528, 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 ekW 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 ISO 3046 standard conditions.

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 ISO 8178-1 for measuring HC, CO, PM, NO_x. 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] Generator temperature rise is based on a 40° C ambient per IEC60034-1.

*Governing Class capability as per ISO 8528-5. Consult your local Cat dealer for configuration and site specific transient performance classification.

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