

Cat® C15

DIESEL GENERATOR SETS



Image shown may 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 in ³)
Compression Ratio	16.1:1
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel System	MEUI
Governor	Electronic ADEM™ A4

Model	Standby	Prime	Emissions Strategy
DE550E3	550 kVA, 440 ekW	500 kVA, 400 ekW	EU3a – Certified Emissions

PACKAGE PERFORMANCE

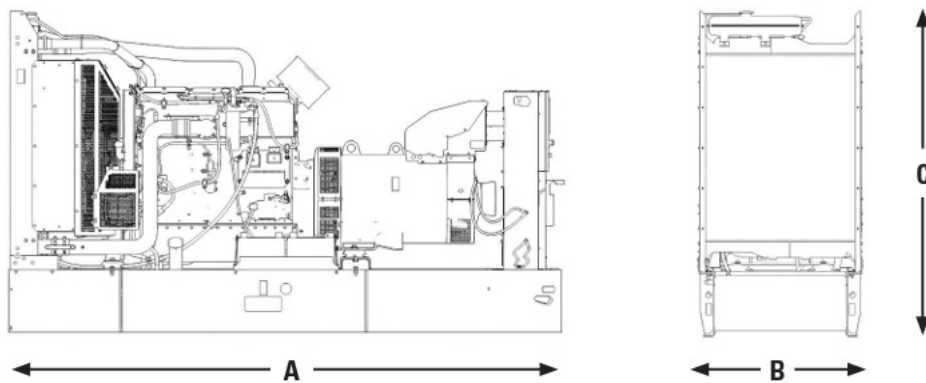
Performance	Standby	Prime
Frequency	50 Hz	
Genset power rating, kVA	550 kVA	500 kVA
Genset power rating with fan @ 0.8 power factor	440 ekW	400 ekW
Emissions	EU3a – Certified Emissions	
Performance number	EM1247	EM0430
Fuel Consumption		
Radiator air flow restriction (system), kPa (in. Water)	0.12 (0.48)	0.12 (0.48)
Radiator air flow, m ³ /min (cfm)	476 (16809)	476 (16809)
Engine coolant capacity, L (gal)	20.8 (5.5)	20.8 (5.5)
Radiator coolant capacity, L (gal)	34 (8.9)	34 (8.9)
Total coolant capacity, L (gal)	54.8 (14.4)	54.8 (14.4)
Cooling System¹		
Radiator air flow restriction (system), kPa (in. Water)	0.12 (0.48)	0.12 (0.48)
Radiator air flow, m ³ /min (cfm)	476 (16809)	476 (16809)
Engine coolant capacity, L (gal)	20.8 (5.5)	20.8 (5.5)
Radiator coolant capacity, L (gal)	34 (8.9)	34 (8.9)
Total coolant capacity, L (gal)	54.8 (14.4)	54.8 (14.4)
Inlet Air		
Combustion air inlet flow rate, m ³ /min (cfm)	35.9 (1269.4)	35.0 (1237.4)
Max. Allowable Combustion Air Inlet Temp, °C (°F)	48 (118)	47 (116)
Exhaust System		
Exhaust stack gas temperature, °C (°F)	484.2 (903.6)	471.3 (880.4)
Exhaust gas flow rate, m ³ /min (cfm)	95.8 (3383.6)	91.4 (3226.7)
Exhaust system backpressure (maximum allowable) kPa (in. water)	10.0 (40.0)	10.0 (40.0)
Heat Rejection		
Heat rejection to jacket water, ekW (Btu/min)	165 (9374)	153 (8681)
Heat rejection to exhaust (total) ekW (Btu/min)	426 (24213)	400 (22769)
Heat rejection to aftercooler, ekW (Btu/min)	126 (7171)	118 (6712)
Heat rejection to atmosphere from engine, ekW (Btu/min)	66 (3767)	59 (3366)
Emissions (Nominal)²		
NO _x , mg/Nm ³ (g/hp-hr)	1634.6 (3.5)	1470.6 (3.2)
CO, mg/Nm ³ (g/hp-hr)	279.8 (0.6)	260.8 (0.6)
HC, mg/Nm ³ (g/hp-hr)	10.1 (0.0)	13.0 (0.0)
PM, mg/Nm ³ (g/hp-hr)	11.5 (0.0)	12.8 (0.0)

ALTERNATOR DATA

Alternator ³			
Voltages	415V	400V	380V
Motor starting capability @ 30% Voltage Dip	1391 skVA	1291 skVA	1165 skVA
Current	SB: 765A, PP: 696A	SB: 794A, PP: 722A	SB: 830A, PP: 722A
Frame Size	A2985L4	A2985L4	A2985L4
Excitation	SE	SE	SE
Temperature Rise	SB: 163°C, PP: 125°C	SB: 163°C, PP: 125°C	SB: 163°C, PP: 125°C

SB: Standby, PP: Prime Power.

WEIGHTS & DIMENSIONS



Length "A" mm (in)	Width "B" mm (in)	Height "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, 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: Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO3046 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 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.

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