

Standby & Prime: 60Hz; 220V, 240V, 380V, 440V & 480V



Image shown might not reflect actual configuration

Engine Model	Cat® C15 ACERT™ 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

Model	Standby	Prime	Emission Strategy
DE450SE0	563 kVA, 450 ekW	513 kVA, 410 ekW	Non-Certified Emissions

PACKAGE PERFORMANCE

Performance	Standby	Prime
Frequency	60 Hz	60 Hz
Genset Power Rating	563 kVA	513 kVA
Gen set power rating with fan @ 0.8 power factor	450 ekW	410 ekW
Fuelling strategy	Non-Certified Emissions	Non-Certified Emissions
Performance Number	DM8163	DM8162
Fuel Consumption		
100% Load with Fan	115.6 L/hr, 30.5 gal/hr	104.9 L/hr, 27.7 gal/hr
75% Load with Fan	86.7 L/hr, 22.9 gal/hr	79.5 L/hr, 21.0 gal/hr
50% Load with Fan	61.6 L/hr, 16.3 gal/hr	57.1 L/hr, 15.1 gal/hr
25% Load with Fan	37.9 L/hr, 10.0 gal/hr	35.5 L/hr, 9.4 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	659 m³/min, 23272 cfm	659 m³/min, 23272 cfm
Engine coolant capacity	20.8 L, 5.5 gal	20.8 L, 5.5 gal
Radiator coolant capacity	37 L, 9.7 gal	37 L, 9.7 gal
Total coolant capacity	57.8 L, 15.2 gal	57.8 L, 15.2 gal
Inlet Air		
Combustion air inlet flow rate	34.2 m³/min, 1207.5 cfm	31.3 m³/min, 1105.3 cfm
Max. Allowable Combustion Air Inlet Temp	50 °C, 123 °F	48 °C, 118 °F
Exhaust System		
Exhaust stack gas temperature	513.6 °C, 956.5 °F	514.6 °C, 958.3 °F
Exhaust gas flow rate	94.5 m³/min, 3336.6 cfm	86.7 m³/min, 3061.6 cfm
Exhaust system backpressure (maximum allowable)	10.0 kPa, 40.0 in. water	10.0 kPa, 40.0 in. water
Heat Rejection		
Heat rejection to jacket water	183 kW, 10406 Btu/min	172 kW, 9782 Btu/min
Heat rejection to exhaust (total)	441 kW, 25077 Btu/min	404 kW, 22976 Btu/min
Heat rejection to aftercooler	88 kW, 4987 Btu/min	73 kW, 4123 Btu/min
Heat rejection to atmosphere from engine	57 kW, 3235 Btu/min	47 kW, 2673 Btu/min
Heat Rejection to Atmosphere from Generator	25 kW, 1422 Btu/min	21 kW, 1194 Btu/min

Emissions (Nominal) ²	Standby			Prime	
NOx	3233.8 mg/Nm³, 6.4 g/hp-hr			3282.9 mg/Nm³, 6.5 g/hp-hr	
CO	242.9 mg/Nm³, 0.5 g/hp-hr			238.2 mg/Nm³, 0.5 g/hp-hr	
HC	4.3 mg/Nm³, 0.0 g/hp-hr			4.4 mg/Nm³, 0.0 g/hp-hr	
PM	10.6 mg/Nm³, 0.0 g/hp-hr			13.6 mg/Nm³, 0.0 g/hp-hr	
Alternator ³					
Voltages	220V	240V	380V	440V	480V
Motor Starting Capability @ 30% Voltage Dip	1351 skVA	1607 skVA	1007 skVA	1351 skVA	1607 skVA
Current	SB: 1476A PP: 1345A	SB: 1353A PP: 1233A	SB: 756A PP: 687A	SB: 738A PP: 673A	SB: 677A PP: 616A
Frame Size	A2975L4	A2975L4	A2975L4	A2975L4	A2975L4
Excitation	SE	SE	SE	SE	SE
Temperature Rise	SB:163°C, 325°F PP: 125°C, 257°F				

SB: Standby PP: Prime Power

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, 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 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 fuel Consumption reported in accordance with ISO3046-1.

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