

Standby & Prime: 50Hz; 415V, 400V, & 380V



Engine Model	Cat® C18 ACERT™ In-line 6, 4-cycle diesel
Bore x Stroke	145 mm x 183 mm (5.7 in x 7.2 in)
Displacement	18.1 L (1106 in³)
Compression Ratio	14.5:1
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel Injection System	MEUI
Governor	Electronic ADEM™ A4

Image shown might not reflect actual configuration

Model	Standby	Prime	Emission Strategy
DE660E0	660 kVA, 528 ekW	600 kVA, 480 ekW	Non-Certified Emissions

PACKAGE PERFORMANCE

Performance	Standby	Prime
Frequency	50 Hz	
Genset Power Rating	660 kVA	600 kVA
Gen set power rating with fan @ 0.8 power factor	528 ekW	480 ekW
Fuelling strategy	Non-Certified Emissions	
Performance Number	DM9822	DM9821
Fuel Consumption		
100% load with fan, L/hr (gal/hr)	130.7 (34.5)	118.8 (31.4)
75% load with fan, L/hr (gal/hr)	97.7 (25.8)	89.0 (23.5)
50% load with fan, L/hr (gal/hr)	67.3 (17.8)	61.9 (16.3)
25% load with fan, L/hr (gal/hr)	38.8 (10.3)	36.1 (9.5)
Cooling System¹		
Radiator air flow restriction (system), kPa (in. Water)	0.12 (0.48)	
Radiator air flow, m³/min (cfm)	373 (13172)	
Engine coolant capacity, L (gal)	20.8 (5.5)	
Radiator coolant capacity, L (gal)	34 (8.9)	
Total coolant capacity, L (gal)	54.8 (14.4)	
Inlet Air		
Combustion air inlet flow rate, m³/min (cfm)	34.2 (1206.4)	32.3 (1142.0)
Max. Allowable Combustion Air Inlet Temp, °C (°F)	49 (121)	47 (117)
Exhaust System		
Exhaust stack gas temperature, °C (°F)	571.1 (1060.0)	543.1 (1009.6)
Exhaust gas flow rate, m³/min (cfm)	102.4 (3614.4)	94.3 (3329.2)
Exhaust system backpressure (maximum allowable), kPa (in. Water)	10.0 (40.0)	
Exhaust System		
Heat rejection to jacket water, kW (Btu/min)	169 (9625)	157 (8947)
Heat rejection to exhaust (total), kW (Btu/min)	504 (28661)	458 (26037)
Heat rejection to aftercooler, kW (Btu/min)	91 (5186)	79 (4475)
Heat rejection to atmosphere from engine, kW (Btu/min)	84 (4784)	79 (4468)
Heat rejection to atmosphere from generator kW (Btu/min)	33 (1877)	28 (1592)

Emissions (Nominal)²			
NOx, mg/Nm ³ (g/hp-hr)		3486.4 (7.0)	3490.3 (6.9)
CO, mg/Nm ³ (g/hp-hr)		507.4 (1.0)	506.5 (1.0)
HC, mg/Nm ³ (g/hp-hr)		1.7 (0.0)	2.6 (0.0)
PM, mg/Nm ³ (g/hp-hr)		4.7 (0.0)	4.7 (0.0)
Alternator³			
Voltages	415V	400V	380V
Motor Starting Capability @ 30% Voltage Dip	1564 skVA	1739 skVA	1869 skVA
Current, amps	SB: 1003A PP: 902A	SB: 953A PP: 866A	SB: 918A PP: 835A
Frame Size	A3335L4		
Excitation	SE	SE	SE
Temperature Rise, °C (°F)	Standby: 163 (325) Prime: 125 (257)		

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.

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.

FUEL RATES: Fuel consumption reported in accordance with ISO3046-1.

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