Cat® C9
Diesel Generator Sets

Standby & Prime: 60 Hz

Image shown might not reflect actual configuration.

Engine Model	Cat® C9 In-line 6, 4-cycle Diesel
Bore x Stroke	112 mm x 149 mm (4.4 in x 5.9 in)
Displacement	8.8 L (538 in³)
Compression Ratio	16.1:1
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel Injection System	HEUI
Governor	Electronic ADEM™ A4 – G3 Class* capable

Model	Standby	Prime	Emission Strategy
D300	300 ekW, 375 kVA	275 ekW, 344 kVA	TIER III Non-Road

PACKAGE PERFORMANCE

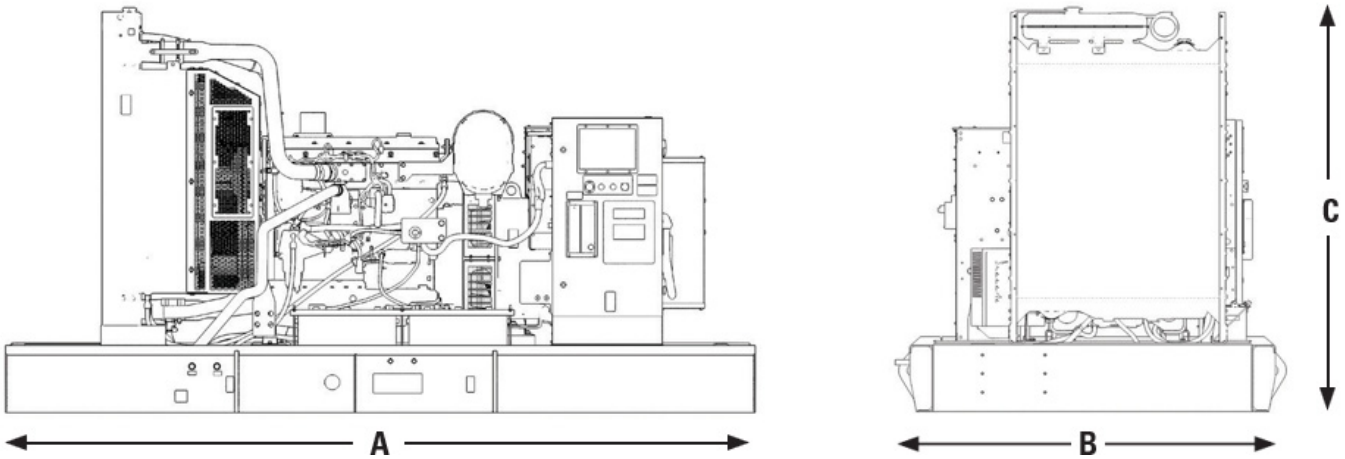
Performance	Standby	Prime
Frequency	60 Hz	
Genset Power Rating	375 kVA	344 kVA
Genset power rating with fan @ 0.8 power factor	300 ekW	275 ekW
Emissions	TIER III Non-Road	
Performance Number	DM8168	DM8500
Fuel Consumption		
100% load with fan, L/hr (gal/hr)	84.1 (22.2)	77.9 (20.5)
75% load with fan, L/hr (gal/hr)	65.3 (17.2)	62.0 (16.3)
50% load with fan, L/hr (gal/hr)	50.3 (13.2)	48.9 (12.9)
25% load with fan, L/hr (gal/hr)	32.3 (8.5)	31.7 (8.3)
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)	497 (17551)	497 (17551)
Engine coolant capacity, L (gal)	13.9 (3.7)	13.9 (3.7)
Radiator coolant capacity, L (gal)	43 (11.5)	43 (11.5)
Total coolant capacity, L (gal)	57 (15)	57 (15)
Inlet Air		
Combustion air inlet flow rate, m³/min (CFM)	26.0 (916.6)	25.3 (891.8)
Max. Allowable Combustion Air Inlet Temp, °C (°F)	50 (123)	51 (124)
Exhaust System		
Exhaust stack gas temperature, °C (°F)	497.3 (927.2)	495.7 (924.2)
Exhaust gas flow rate, m³/min (CFM)	69.7 (2460.9)	67.4 (2379.6)
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)	120 (6838)	113 (6431)
Heat rejection to exhaust (total), kW (BTU/min)	320 (18223)	307 (17454)
Heat rejection to aftercooler, kW (BTU/min)	92 (5239)	83 (4726)
Heat rejection to atmosphere from engine, kW (BTU/min)	23 (1312)	18 (1009)
Heat rejection from alternator, kW (BTU/min)	22.2 (1262)	19.7 (1120)

Emissions (Nominal)[2]	Standby	Prime
NOx, mg/Nm³ (g/hp-hr)	2196.0 (4.0)	1975.0 (3.6)
CO, mg/Nm³ (g/hp-hr)	115.5 (0.2)	103.9 (0.2)
HC, mg/Nm³ (g/hp-hr)	23.1 (0.06)	23.2 (0.06)
PM, mg/Nm³ (g/hp-hr)	12.7 (0.03)	10.5 (0.03)

Alternator[3]													
Duty Cycle		Standby						Prime					
Phase		3-Phase						3-Phase					
Voltages*, V		208	220	240	380	480	600	208	220	240	380	480	600
Current Amps		1041	984	902	570	451	361	954	903	827	523	414	331
Frame: LC6124B Excitation: AREP	Temperature Rise @ 40°C	105		105		105	105	80		80		80	80
	Motor Starting Capability @ 30% Voltage Dip, skVA	812		1055		1055	1057	812		1055		1055	1057
Frame: LC5024L Excitation: AREP	Temperature Rise @ 40°C	150		130		130	150	125		105		105	125
	Motor Starting Capability @ 30% Voltage Dip, skVA	818		1044		1044	1074	818		1044		1044	1074
Frame: LC5024J Excitation: AREP	Temperature Rise @ 40°C			150		150	150			125		125	125
	Motor Starting Capability @ 30% Voltage Dip, skVA			816		816	754			816		816	754
Frame: LC6114B Excitation: SE	Temperature Rise @ 40°C	105		105	105	105		80		80	80	80	
	Motor Starting Capability @ 30% Voltage Dip, skVA	677		880	709	880		677		880	709	880	
Frame: LC5014J Excitation: SE	Temperature Rise @ 40°C			150		150				125		125	
	Motor Starting Capability @ 30% Voltage Dip, skVA			683		683				683		683	
Frame: LC5014L Excitation: SE	Temperature Rise @ 40°C	150	130	150		150		125	105	125		125	
	Motor Starting Capability @ 30% Voltage Dip, skVA	681	750	869		869		681	750	869		869	

***Note:** 220V and 380V are additional offerings for the Latin America Market.

WEIGHTS & DIMENSIONS



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
3091 (122)	1622 (64)	2066 (82)	2313 (5100)

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

APPLICABLE CODES AND STANDARDS:

CSA C22.2 No 100-04, UL489, UL869, UL2200, IBC, IEC60034-1, ISO 3046, ISO 8528, NEMA MG 1-22, NEMA MG 1-33 and facilitates the compliance to NFPA 37, NFPA70, NFPA 99, NFPA110.

Note: Codes may not be available for all model configurations. Site level review needed for NFPA 70. Please consult your Cat Dealer 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.

FUEL RATES: Based on fuel oil of 35° API [16° C (60° F)] gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29° C (85° F) and weighing 838.9 g/litre (7.001 lbs/U.S. gal.). Additional ratings may be available for specific customer requirements, contact your Caterpillar representative for details. For information regarding Low Sulfur fuel and Biodiesel capability, please consult your Cat dealer.

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, 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.

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