Cat® C13
Diesel Generator Sets

Standby & Prime: 60 Hz

Image shown might not reflect actual configuration.

Engine Model	Cat® C13 In-line 6, 4-cycle Diesel
Bore x Stroke	130 mm x 157 mm (5.1 in x 6.2 in)
Displacement	12.5 L (763 in³)
Compression Ratio	16.3:1
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel Injection System	MEUI
Governor	Electronic ADEM™ A4 – G3 Class* capable

Model	Standby	Prime	Emission Strategy
C13	350 ekW, 437.50 kVA	320 ekW, 400 kVA	TIER III Non-Road

PACKAGE PERFORMANCE

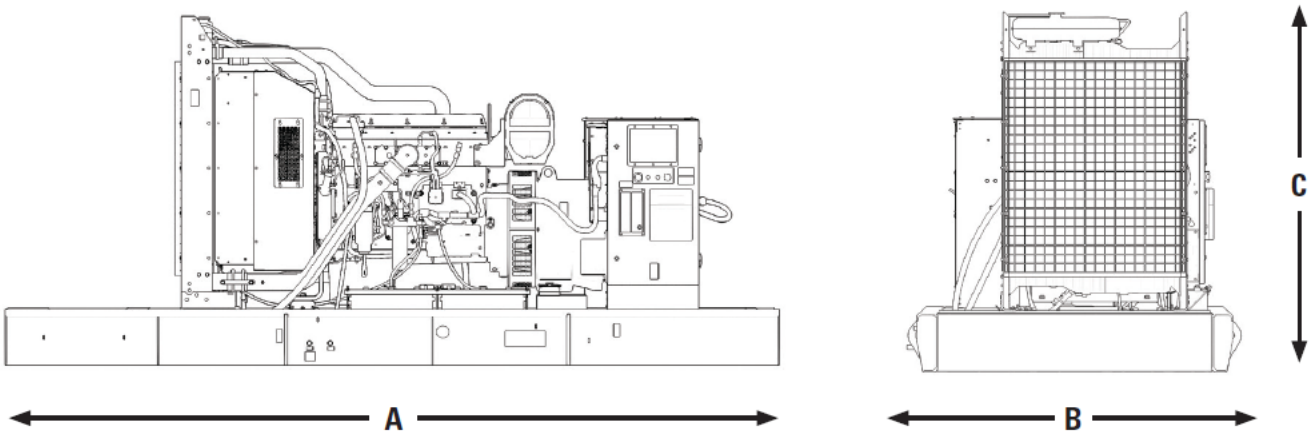
Performance	Standby	Prime
Frequency	60 Hz	
Genset Power Rating	437.50 kVA	400 kVA
Genset power rating with fan @ 0.8 power factor	350 ekW	320 ekW
Emissions	TIER III Non-Road	
Performance Number	EM1692	EM1693
Fuel Consumption		
100% load with fan, L/hr (gal/hr)	93.4 (24.6)	87.3 (23.0)
75% load with fan, L/hr (gal/hr)	80.1 (21.1)	75.0 (19.8)
50% load with fan, L/hr (gal/hr)	58.8 (15.5)	54.5 (14.3)
25% load with fan, L/hr (gal/hr)	33.6 (8.8)	31.3 (8.2)
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)	14.2 (3.8)	14.2 (3.8)
Radiator coolant capacity, L (gal)	30 (8)	30 (8)
Total coolant capacity, L (gal)	34 (12)	34 (12)
Inlet Air		
Combustion air inlet flow rate, m³/min (CFM)	25.0 (882.8)	24.2 (854.6)
Max. Allowable Combustion Air Inlet Temp, °C (°F)	49 (120)	49 (121)
Exhaust System		
Exhaust stack gas temperature, °C (°F)	572 (1061.6)	565 (1049)
Exhaust gas flow rate, m³/min (CFM)	74.2 (2620.3)	71.1 (2510.8)
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)	145 (8246)	136 (7734)
Heat rejection to exhaust (total), kW (BTU/min)	365 (20757)	345 (19619)
Heat rejection to aftercooler, kW (BTU/min)	55.9 (3179)	50.7 (2883)
Heat rejection to atmosphere from engine, kW (BTU/min)	48.3 (2746)	47.1 (2678)

Emissions (Nominal)[2]	Standby	Prime
NOx, mg/Nm³ (g/hp-hr)	2,274.7 (4.58)	1,968.7 (4.04)
CO, mg/Nm³ (g/hp-hr)	666.9 (1.35)	700.6 (1.45)
HC, mg/Nm³ (g/hp-hr)	6.2 (0.01)	7.5 (0.02)
PM, mg/Nm³ (g/hp-hr)	39.4 (0.1)	41.6 (0.1)

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		1214	1148	1053	665	526	421	1110	1050	827	608	414	385
Frame: LC6124D Excitation: AREP	Temperature Rise @ 40°C	105	105	105		105	105	80	80	80		80	80
	Motor Starting Capability @ 30% Voltage Dip, skVA	1008	1118	1309		1309	1408	1008	1118	1309		1309	1408
Frame: LC6124B Excitation: AREP	Temperature Rise @ 40°C	105	130	130		130	130	80	105	105		105	105
	Motor Starting Capability @ 30% Voltage Dip, skVA	812	901	1055		1055	1057	812	901	1055		1055	1057
Frame: LC6114D Excitation: SE	Temperature Rise @ 40°C	105	105	105		105		80	80	80		80	
	Motor Starting Capability @ 30% Voltage Dip, skVA	839	930	1089		1089		839	930	1089		1089	
Frame: LC6114B Excitation: SE	Temperature Rise @ 40°C	130	130	130	150	130		105	105	105	125	105	
	Motor Starting Capability @ 30% Voltage Dip, skVA	677	751	880	513	880		677	751	880	513	880	

***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)
3505 (138)	1652 (65)	2069 (82)	3696 (8147)

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 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.

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