Cat® C7.1
Diesel Generator Sets

Image shown may not reflect actual configuration

Engine Model	Cat® C7.1 In-line 6, 4-cycle Diesel
Bore x Stroke	105 mm x 127 mm (4.1 in x 5.0 in)
Displacement	7.01 L (428 in³)
Compression Ratio	16.7:1
Aspiration	Turbocharged Air-to-Air-Aftercooled
Fuel Injection System	Common Rail
Governor	Electronic

Model	Standby	Prime	Emissions Strategy
C7.1	125 ekW	114 ekW	EPA TIER III

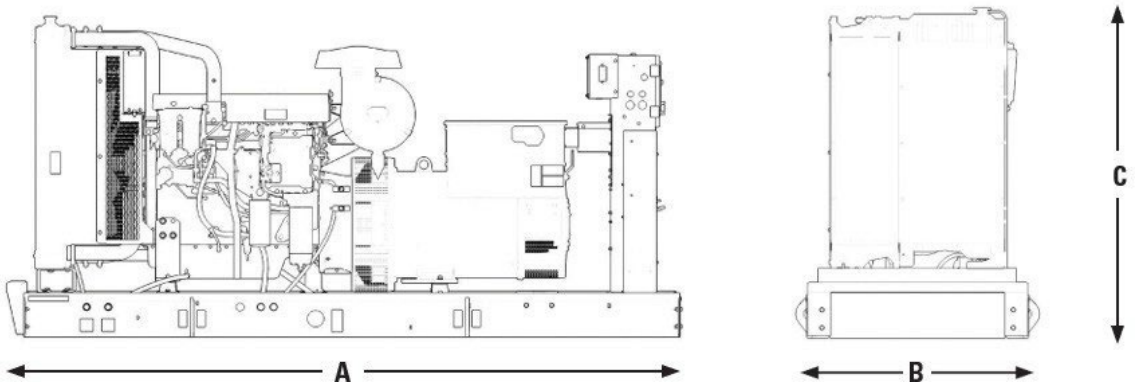
PACKAGE PERFORMANCE

Performance	Standby	Prime
Frequency	60 Hz	60 Hz
Genset power rating	156.3 kVA	142.5 kVA
Genset power rating with fan @ 0.8 power factor	125 ekW	114 ekW
Emissions	EPA TIER III	EPA TIER III
Performance number	P4392A	P4392C
Fuel Consumption		
100% load with fan, L/hr (gal/hr)	36.6 (9.7)	34.1 (9.0)
75% load with fan, L/hr (gal/hr)	29.3 (7.7)	27.3 (7.2)
50% load with fan, L/hr (gal/hr)	21.2 (5.6)	19.7 (5.2)
Cooling System[1]		
Radiator air flow restriction (system), kPa (in. water)	0.12 (0.48)	0.12 (0.48)
Engine coolant capacity, L (gal)	9.5 (2.5)	9.5 (2.5)
Radiator coolant capacity, L (gal)	11.5 (3.0)	11.5 (3.0)
Total coolant capacity, L (gal)	21.0 (5.5)	21.0 (5.5)
Inlet Air		
Combustion air inlet flow rate, m³/min (CFM)	14.4 (508.5)	13.9 (490.9)
Max. allowable combustion air inlet temp, °C (°F)	51 (124)	51 (124)
Exhaust System		
Exhaust stack gas temperature, °C (°F)	450 (842)	439 (822)
Exhaust gas flow rate, m³/min (CFM)	29.9 (1056)	28.8 (1017)
Exhaust system back pressure (maximum allowable), kPa (in. water)	15.0 (60.2)	15.0 (60.2)
Heat Rejection		
Heat rejection to exhaust (total), kW (BTU/min)	128 (7279)	120 (6824)
Heat rejection to aftercooler, kW (BTU/min)	32 (1819)	30 (1706)
Heat rejection to atmosphere from engine, kW (BTU/min)	28 (1592)	26 (1478)
Emissions (Nominal)[2]		
NOx + HC, g/kW-hr	4.0	4.0
CO, g/kW-hr	1.0	1.0
PM, g/kW-hr	0.2	0.2

Alternator[3]													
Duty Cycle		Standby						Prime					
Phase		3-Phase						3-Phase					
Voltages*, V		480/277	380/220	240/120	220/127	208/120	600/347	480/277	380/220	240/120	220/127	208/120	600/347
Current, Amps		188	217	376	410	434	150	171	205	343	374	396	137
Excitation		SE	SE	SE	SE	SE	AREP	SE	SE	SE	SE	SE	AREP
Frame: LC3114G	Temperature Rise @ 40°C	130			150			105			125		
	Motor Starting Capability @ 30% Voltage Dip, skVA	363			315			363			315		
Frame: LC3114H	Temperature Rise @ 40°C	130	150	150		150		105	125	125		125	
	Motor Starting Capability @ 30% Voltage Dip, skVA	407	276	322		322		407	276	322		322	
Frame: LC3114J	Temperature Rise @ 40°C			105		105				105		105	
	Motor Starting Capability @ 30% Voltage Dip, skVA			358		358				358		358	
Frame: LC3124G	Temperature Rise @ 40°C						150						125
	Motor Starting Capability @ 30% Voltage Dip, skVA						449						449
Frame: LC3124H	Temperature Rise @ 40°C						130						105
	Motor Starting Capability @ 30% Voltage Dip, skVA						481						481

*Note: 220 V and 380 V are additional offerings for the Latin American market.

WEIGHTS & DIMENSIONS



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

Length "A" mm (in)	Width "B" mm (in)	Height "C" mm (in)	Dry Weight kg (lb)
3039 (120)	1110 (44)	1476 (58)	1500 (3307)

APPLICABLE CODES AND STANDARDS:

CSA C22.2 No 100-04, UL142, UL489, UL869, cUL/UL2200, IBC, IEC60034-1, ISO 3046, ISO 8528, NEMA MG 1-33 and facilitates compliance to NFPA 37, NFPA 70, NFPA 99, NFPA 110.

Note: Codes may not be available in all model configurations. Site level review needed for NFPA70. Please consult your local 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.

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