Cat® C4.4
Diesel Generator Sets

Image shown may not reflect actual configuration

Engine Model	Cat® C4.4 In-line 4, 4-cycle Diesel
Bore x Stroke	105 mm x 127 mm (4.1 in x 5.0 in)
Displacement	4.4 L (269 in^3)
Compression Ratio	16.7:1
Aspiration	Turbocharged
Fuel Injection System	Common Rail

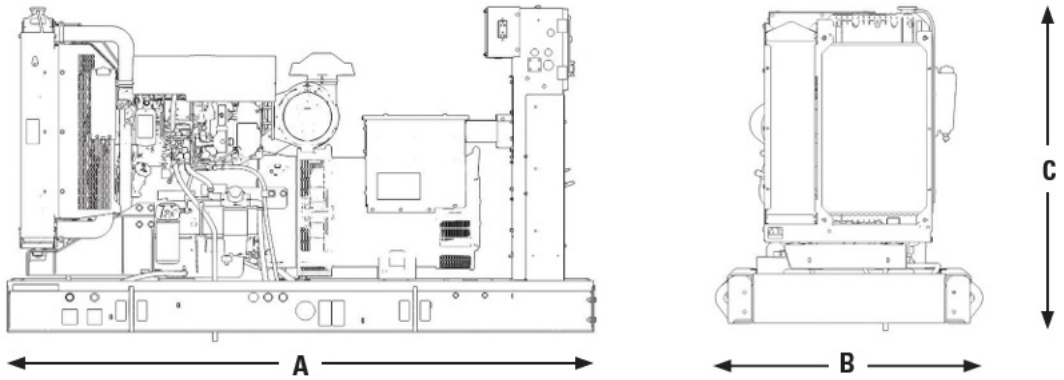
Model	Standby	Prime	Emissions Strategy
C4.4	80 ekW	72 ekW	EPA TIER III

PACKAGE PERFORMANCE

Performance	Standby		Prime	
	3-Phase	1-Phase	3-Phase	1-Phase
Frequency	60 Hz	60 Hz	60 Hz	60 Hz
Genset power rating	100 kVA	80 kVA	90 kVA	72 kVA
Genset power rating with fan @ 0.8 power factor	80 ekW	80 ekW	72 ekW	72 ekW
Performance number	P4510A	P4510A	P4510C	P4510C
Fuel Consumption				
100% load with fan, L/hr (gal/hr)	22.9 (6.1)	23.3 (6.2)	21.2 (5.6)	21.5 (5.7)
75% load with fan, L/hr (gal/hr)	18.4 (4.9)	18.6 (4.9)	16.9 (4.5)	17.1 (4.5)
50% load with fan, L/hr (gal/hr)	13.5 (3.6)	13.6 (3.6)	12.5 (3.3)	12.6 (3.3)
Cooling System[1]				
Radiator air flow restriction (system), kPa (in. water)	0.12 (0.48)	0.12 (0.48)	0.12 (0.48)	0.12 (0.48)
Engine coolant capacity, L (gal)	7.0 (1.8)	7.0 (1.8)	7.0 (1.8)	7.0 (1.8)
Radiator coolant capacity, L (gal)	10.0 (2.6)	10.0 (2.6)	10.0 (2.6)	10.0 (2.6)
Total coolant capacity, L (gal)	17.0 (4.4)	17.0 (4.4)	17.0 (4.4)	17.0 (4.4)
Inlet Air				
Combustion air inlet flow rate, m^3/min (CFM)	7.8 (275)	7.8 (275)	7.7 (274)	7.7 (274)
Max. allowable combustion air inlet temp, °C (°F)	45 (113)	45 (113)	45 (113)	45 (113)
Exhaust System				
Exhaust stack gas temperature, °C (°F)	493 (920)	493 (920)	479 (894)	479 (894)
Exhaust gas flow rate, m^3/min (CFM)	17.6 (620)	17.6 (621)	16.8 (594)	16.8 (594)
Exhaust system backpressure (maximum allowable), kPa (in. water)	15.0 (60.2)	15.0 (60.2)	15.0 (60.2)	15.0 (60.2)
Heat Rejection				
Heat rejection to exhaust (total), kW (BTU/min)	77.7 (4419)	77.7 (4419)	73.3 (4168)	73.3 (4168)
Heat rejection to atmosphere from engine, kW (BTU/min)	13.5 (768)	13.5 (768)	13.0 (740)	13.0 (740)
Emissions (Nominal)[2]				
NOx + HC, g/kW-hr	3.6	3.6	3.6	3.6
CO, g/kW-hr	0.9	0.9	0.9	0.9
PM, g/kW-hr	0.12	0.12	0.12	0.12

Alternator[3]											
Duty Cycle		Standby					Prime				
Phase		3-Phase				1-Phase	3-Phase				1-Phase
Voltages, V		480/277	240/120	208/120	600/347	240/120	480/277	240/120	208/120	600/347	240/120
Current, Amps		120	241	278	96	333	108	217	250	87	300
Excitation		SE	SE	SE	AREP	SE	SE	SE	SE	AREP	SE
Frame: LC3114D	Temperature Rise, °C	105	105	105			80	105	105		
	Motor Starting Capability @ 30% Voltage Dip, skVA	215	168	168			215	168	168		
Frame: LC3114F	Temperature Rise, °C	105	105	105			80	80	80		
	Motor Starting Capability @ 30% Voltage Dip, skVA	280	219	219			280	219	219		
Frame: LC3124D	Temperature Rise, °C				105					80	
	Motor Starting Capability @ 30% Voltage Dip, skVA				258					258	
Frame: LC3124F	Temperature Rise, °C				80					80	
	Motor Starting Capability @ 30% Voltage Dip, skVA				317					317	
Frame: LCB3114D	Temperature Rise, °C					130					105
	Motor Starting Capability @ 30% Voltage Dip, skVA					182					182

WEIGHTS & DIMENSIONS



Length "A" mm (in)	Width "B" mm (in)	Height "C" mm (in)	Dry Weight kg (lb)
2362 (93)	1110 (44)	1304 (51)	1130 (2491)

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, UL142, UL489, UL869, cUL/UL2200, NFPA 37, NFPA 70, NFPA 99,NFPA 110, IBC, IEC60034-1, ISO 3046, ISO 8528, NEMA MG 1-33.

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 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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