

Cat® C3.3

Diesel Generator Sets



Standby & Prime: 50 Hz & 60 Hz



Image shown might not reflect actual configuration

Engine Model	Cat® C3.3 Inline 4-stroke Diesel
Bore x Stroke	105.0 mm x 127.0 mm (4.1 in x 5.0 in)
Displacement	3.3 L (201.4 in ³)
Compression Ratio	17.25:1
Aspiration	Turbocharged
Fuel Injection System	Inline
Governor	Mechanical

Model	Standby		Prime		Emission Strategy
	50 Hz	60 Hz	50 Hz	60 Hz	
DE50E0	50.0 kVA (40.0 kW)	56.3 kVA (45.0 kW)	45.0 kVA (36.0 kW)	50.0 kVA (40.0 kW)	Low BSFC

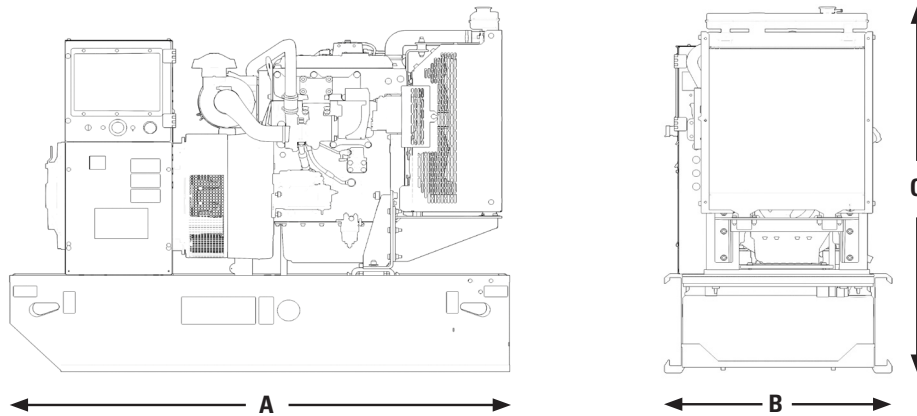
PACKAGE PERFORMANCE

Performance	Standby		Prime	
	50 Hz	60 Hz	50 Hz	60 Hz
Frequency	50 Hz	60 Hz	50 Hz	60 Hz
Genset Power Rating	50.0 kVA	56.3 kVA	45.0 kVA	50.0 kVA
Genset power rating with fan @ 0.8 power factor	40.0 kW	45.0 kW	36.0 kW	40.0 kW
Emissions	Low BSFC			
Performance Number	P2502B	P2502A	P2502B	P2502A
Fuel Consumption				
Fuel Tank Capacity, litres (US gal)	219 (57.9)			
100% load with fan, L/hr (gal/hr)	11.7 (3.1)	12.9 (3.4)	10.5 (2.8)	11.7 (3.1)
75% load with fan, L/hr (gal/hr)	8.7 (2.3)	9.7 (2.6)	7.8 (2.1)	9.0 (2.4)
50% load with fan, L/hr (gal/hr)	6.0 (1.6)	7.0 (1.9)	5.5 (1.5)	6.6 (1.7)
Cooling System¹				
Radiator air flow, m ³ /min (CFM)	86.4 (3051)	105.6 (3729)	86.4 (3051)	105.6 (3729)
Total coolant capacity, L (gal)	10.2 (2.7)			
Inlet Air				
Max. Combustion Air Intake Restriction, kPa (in water)	8.0 (32.1)			
Combustion air inlet flow rate, m ³ /min (CFM)	3.1 (109)	3.9 (138)	2.9 (102)	3.7 (131)
Max. Allowable Combustion Air Inlet Temp, °C (°F)	50 (122)			
Exhaust System				
Exhaust stack gas temperature, °C (°F)	537 (999)	551 (1024)	492 (918)	510 (950)
Exhaust gas flow rate, m ³ /min (CFM)	7.7 (272)	9.5 (335)	7.0 (247)	8.8 (311)
Exhaust system backpressure (maximum allowable), kPa (in water)	10.0 (3.0)	15.0 (4.4)	10.0 (3.0)	15.0 (4.4)
Heat Rejection				
Heat rejection to jacket water, kW (BTU/min)	30.0 (1706)	34.0 (1934)	26.1 (1484)	31.0 (1763)
Heat rejection to alternator, kW (BTU/min)	5.2 (296)	5.4 (307)	5.2 (296)	5.4 (307)
Heat rejection to atmosphere from engine, kW (BTU/min)	13.2 (751)	14.4 (819)	11.4 (648)	12.6 (717)

Alternator ²		50 Hz							
Duty Cycle		Standby				Prime			
Phase		3-Phase				3-Phase			
Voltages, V		200/115	230/115	400/230	415/240	200/115	230/115	400/230	415/240
Current, Amps		144	126	72	70	130	113	65	63
Frame: LC1514L	Temperature Rise, @ 40°C	163	163	163	163	125	125	125	125
Excitation SE	Motor Starting Capability 30% Voltage Dip, skVA	104	103	104	109	104	103	104	109
Frame: M1754L4	Temperature Rise @ 40°C	163		163	163	125		125	125
Excitation: SE	Motor Starting Capability @ 30% Voltage Dip, skVA	20		69	74	20		69	74

Alternator ²		60 Hz									
Duty Cycle		Standby				Prime					
Phase		3-Phase				3-Phase					
Voltages, V		220/127	240/139	440/254	480/277	208/120	220/127	240/139	240/120	440/254	480/277
Current, Amps		147.7	135.4	73.9	67.7	138.8	131.2	120.3	120.3	65.6	60.1
Frame: LC1514F	Temperature Rise, @ 40°C	150	130	150	130	125	125	105	125	125	105
Excitation: SE	Motor Starting Capability @ 30% Voltage Dip, skVA	104	118	104	118	96	104	118	96	104	118

WEIGHTS & DIMENSIONS



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
1925 (75.8)	1120 (44.1)	1361 (53.6)	858 (1891)

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

APPLICABLE CODES AND STANDARDS:

AS1359, IEC60034-1, ISO 3046, ISO 8528, NEMA MG1-33, EAC, CE, UKCA.

Note: Codes may not be available in all model configurations. 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 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 ISO 3046 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 Generator temperature rise is based on a 40°C ambient per IEC60034-1.