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	105.0mm x 127.0mm (4.1in x 5.0 in)
Displacement	3.3 L (201.4 in³)
Compression Ratio	17.25:1
Aspiration	Turbocharged
Fuel Injection System	Inline
Governor	Mechanical

Model	Standby		Prime		Emission Strategy
DE55E0	50 Hz	60 Hz	50 Hz	60 Hz	Low BSFC
	55.0 kVA (44.0 kW)	62.5 kVA (50.0 kW)	50.0 kVA (40.0 kW)	56.3 kVA (45.0 kW)	

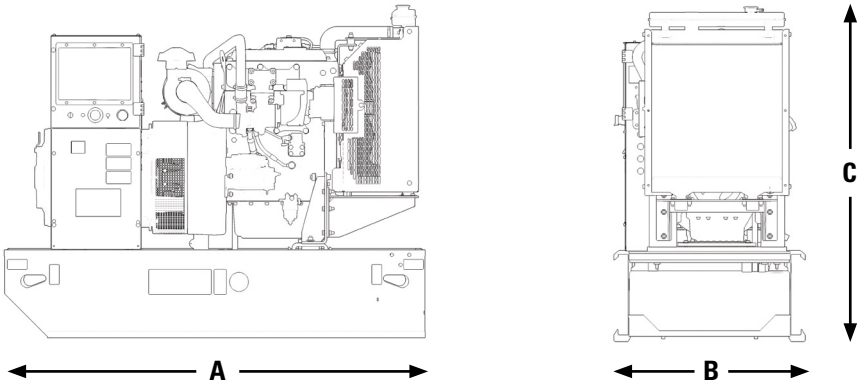
PACKAGE PERFORMANCE

Performance	Standby		Prime	
Frequency	50 Hz	60 Hz	50 Hz	60 Hz
Genset Power Rating	55.0 kVA	62.5 kVA	50.0 kVA	56.3 kVA
Genset power rating with fan @ 0.8 power factor	44.0 kW	50.0 kW	40.0 kW	45.0 kW
Emissions	Low BSFC			
Performance Number	P2506B	P2506A	P2506B	P2506A
Fuel Consumption				
Fuel Tank Capacity, litres (US gal)	219 (57.9)			
100% load with fan, L/hr (gal/hr)	12.7 (3.4)	15.1 (4.0)	11.5 (3.0)	13.6 (3.6)
75% load with fan, L/hr (gal/hr)	9.5 (2.5)	11.4 (3.0)	8.7 (2.3)	10.4 (2.7)
50% load with fan, L/hr (gal/hr)	6.7 (1.8)	8.2 (2.2)	6.2 (1.6)	7.6 (2.0)
Cooling System[1]				
Radiator air flow, m³/min (CFM)	110.4 (3899)	145.8 (5149)	110.4 (3899)	145.8 (5149)
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, m³/min (CFM)	3.9 (138)	4.9 (173)	3.8 (134)	4.7 (166)
Max. Allowable Combustion Air Inlet Temp, °C (°F)	50 (122)			
Exhaust System				
Exhaust stack gas temperature, °C (°F)	483 (901)	477 (891)	464 (867)	445 (833)
Exhaust gas flow rate, m³/min (CFM)	8.8 (311)	10.6 (374)	8.4 (297)	9.8 (346)
Exhaust system backpressure (maximum allowable), kPa (in. water)	10.0 (41)	15.0 (60.2)	10.0 (41)	15.0 (4.4)
Heat Rejection				
Heat rejection to jacket water, kW (BTU/min)	38.0 (2161)	43.0 (2445)	35.0 (1990)	41.0 (2332)
Heat rejection to alternator, kW (BTU/min)	5.4 (307)	5.9 (336)	5.4 (307)	5.9 (336)
Heat rejection to atmosphere from engine, kW (BTU/min)	16.4 (933)	16.9 (961)	14.6 (830)	16.0 (910)

Alternator[2]		50 Hz											
Duty Cycle		Standby						Prime					
Phase		3-Phase						3-Phase					
Voltages, V		200/115	220/110	230/115	380/220	400/230	415/240	200/115	220/110	230/115	380/220	400/230	415/240
Current, Amps		159	144	138	84	79	77	144	131	126	76	72	70
Frame: LC1514N Excitation: SE	Temperature Rise, @ 40°C	163	163	163	163	163	163	125	125	125	125	125	125
	Motor Starting Capability @ 30% Voltage Dip, skVA	115	107	114	107	115	121	115	107	114	107	115	121
Frame: M1756L4 Excitation SE	Temperature Rise, @ 40°C	163			163	163	163	125			125	125	125
	Motor Starting Capability @ 30% Voltage Dip, skVA	23			74	81	86	23			74	81	86

Alternator[2]		60 Hz												
Duty Cycle		Standby							Prime					
Phase		3-Phase							3-Phase					
Voltages, V		208/120	220/127	240/139	240/120	380/220	440/254	480/277	208/120	220/127	240/139	240/120	380/220	440/254	480/277
Current, Amps		173.5	164	150.4	150.4		82	75.2	156.3	147.7	135.4	135.4		73.9	67.7
Frame: LC1514F Excitation: SE	Temperature Rise, @ 40°C	163	150	130	163		150	130	125	125	105	125		125	105
	Motor Starting Capability @ 30% Voltage Dip, skVA	107	116	131	106		116	131	107	116	131	106		116	131

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)	863 (1902)

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 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.

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.

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