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 in³)
Compression Ratio	19.25:1
Aspiration	Naturally Aspirated
Fuel Injection System	Inline
Governor	Mechanical

Model	Standby		Prime		Emission Strategy
DE33E0	50 Hz	60 Hz	50 Hz	60 Hz	Low BSFC
	33.0 kVA (26.4 kW)	37.5 kVA (30.0 kW)	30.0 kVA (24.0 kW)	33.8 kVA (27.0 kW)	

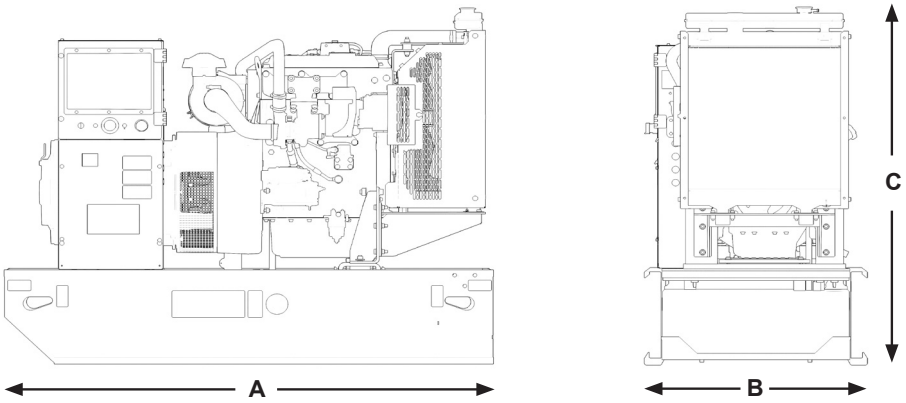
PACKAGE PERFORMANCE

Performance	Standby		Prime	
Frequency	50 Hz	60 Hz	50 Hz	60 Hz
Genset Power Rating	33.0 kVA	37.5 kVA	30.0 kVA	33.8 kVA
Genset power rating with fan @ 0.8 power factor	26.4 kW	30.0 kW	24.0 kW	27.0 kW
Emissions	Low BSFC			
Performance Number	P2490B	P2490A	P2490B	P2490A
Fuel Consumption				
Fuel Tank Capacity, litres (US gal)	161 (42.5)			
100% load with fan, L/hr (gal/hr)	7.7 (2.0)	9.0 (2.4)	7.0 (1.8)	8.1 (2.1)
75% load with fan, L/hr (gal/hr)	5.7 (1.5)	6.8 (1.8)	5.2 (1.4)	6.2 (1.6)
50% load with fan, L/hr (gal/hr)	4.1 (1.1)	5.0 (1.3)	3.8 (1.0)	4.7 (1.2)
Cooling System[1]				
Radiator air flow, m³/min (CFM)	62.6 (2211)	84.8 (2995)	62.6 (2211)	84.8 (2995)
Total coolant capacity, L (gal)	10.2 (2.7)			
Inlet Air				
Max. Combustion Air Intake Restriction, kPa (in water)	6.5 (26.1)			
Combustion air inlet flow rate, m³/min (CFM)	2.2 (76)	2.6 (91)	2.2 (76)	2.6 (92)
Max. Allowable Combustion Air Inlet Temp, °C (°F)	50 (122)			
Exhaust System				
Exhaust stack gas temperature, °C (°F)	520 (968)	530 (986)	500 (932)	520 (968)
Exhaust gas flow rate, m³/min (CFM)	5.8 (205)	6.6 (233)	5.7 (201)	6.4 (226)
Exhaust system backpressure (maximum allowable), kPa (in water)	8.0 (32.1)	10.0 (41)	8.0 (32.1)	10.0 (41)
Heat Rejection				
Heat rejection to jacket water, kW (BTU/min)	18.0 (1024)	22.0 (1251)	16.0 (910)	18.0 (1024)
Heat rejection to alternator, kW (BTU/min)	3.3 (188)	3.7 (210)	3.3 (188)	3.7 (210)
Heat rejection to atmosphere from engine, kW (BTU/min)	9.3 (529)	9.7 (552)	7.9 (449)	8.2 (466)

Alternator[2]		50 Hz													
Duty Cycle		Standby							Prime						
Phase		3-Phase							3-Phase						
Voltages, V		200/115	220/127	220/110	230/115	380/220	400/230	415/240	200/115	220/127	220/110	230/115	380/220	400/230	415/240
Current, Amps		95	87	87	83	50	48	46	87	79	79	75	46	43	42
Frame: LC1514F Excitation: SE	Temperature Rise, @ 40°C	163	163	163	163	163	163	163	125	125	125	125	125	125	125
	Motor Starting Capability 30% Voltage Dip, skVA	68	78	63	68	63	68	72	68	78	63	68	63	68	72
Frame: M1717L4 Excitation: SE	Temperature Rise, @ 40°C	163	163			163	163	163	125	125			125	125	125
	Motor Starting Capability 30% Voltage Dip, skVA	13	16			42	46	49	13	16			42	46	49

Alternator[2]		60 Hz														
Duty Cycle		Standby								Prime						
Phase		3-Phase								3-Phase						
Voltages, V		208/120	220/127	220/110	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		104.1	98.4	98.4	90.2	90.2	57	49.2	45.1	93.8	88.7	81.3	81.3	51.4	44.4	40.7
Frame: LC1514F Excitation: SE	Temperature Rise, @ 40°C	130	130	163	130	130	163	130	130	105	105	105	105	125	105	105
	Motor Starting Capability @ 30% Voltage Dip, skVA	63	69	55	78	63	55	69	78	63	69	78	63	55	69	78
Frame: M1717L4 Excitation: SE	Temperature Rise, @ 40°C	150	130		130			130	130	125	105	105			105	105
	Motor Starting Capability @ 30% Voltage Dip, skVA	12	13		15			46	54	12	13	15			46	54

WEIGHTS & DIMENSIONS



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
1540 (60.6)	970 (38.2)	1361 (53.6)	827 (1823)

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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