Cat® C1.1
Diesel Generator Sets

Standby & Prime: 50 Hz & 60 Hz

Image shown might not reflect actual configuration

Engine Model	Cat® C1.1 In-line 3, 4-cycle diesel
Bore x Stroke	77 mm x 81 mm (3.0 in x 3.2 in)
Displacement	1.1 L (69 in³)
Compression Ratio	23:1
Aspiration	Naturally Aspirated
Fuel Injection System	Inline
Governor	Mechanical

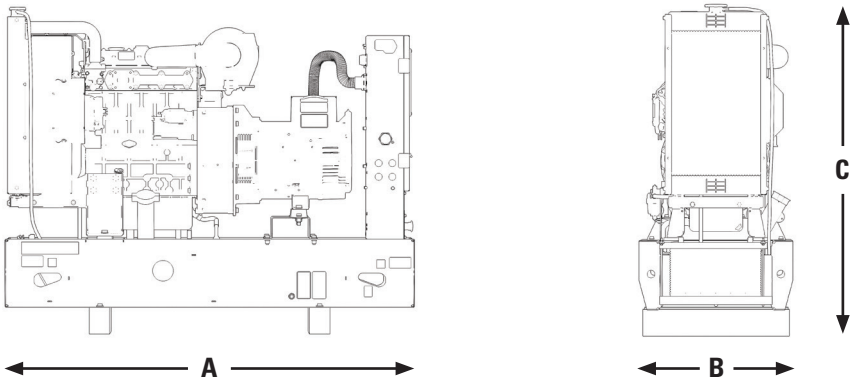
Model	Standby		Prime		Emission Strategy
DE7.5E3S	50 Hz	60 Hz	50 Hz	60 Hz	EU IIIA
	7.5 kVA	8.8 kVA	6.8 kVA	8.0 kVA	

PACKAGE PERFORMANCE

Performance	Standby		Prime	
Frequency	50 Hz	60 Hz	50 Hz	60 Hz
Genset Power Rating	7.5 kVA	8.8 kVA	6.8 kVA	8.0 kVA
Genset power rating with fan @ 0.8 power factor	7.5 ekW	8.8 ekW	6.8 ekW	8.0 ekW
Emissions	EU IIIA			
Fuel Consumption				
110% load with fan, L/hr (gal/hr)	NA		2.8 (0.7)	3.3 (0.9)
100% load with fan, L/hr (gal/hr)	2.8 (0.7)	3.3 (0.9)	2.5 (0.7)	2.9 (0.8)
75% load with fan, L/hr (gal/hr)	2.1 (0.6)	2.4 (0.6)	1.9 (0.5)	2.2 (0.6)
50% load with fan, L/hr (gal/hr)	1.6 (0.4)	1.8 (0.5)	1.5 (0.4)	1.8 (0.5)
Cooling System[1]				
Radiator air flow restriction (system), kPa (in water)	125 (2)	125 (2)	125 (2)	125 (2)
Radiator air flow, m³/min (CFM)	24 (848)	32.7 (1155)	24 (848)	32.7 (1155)
Total coolant capacity, L (gal)	5.2 (1.4)	5.2 (1.4)	5.2 (1.4)	5.2 (1.4)
Inlet Air				
Max. Combustion Air Intake Restriction, kPa (in water)	0.7 (25)	0.9 (32)	0.7 (25)	0.9 (32)
Max. Allowable Combustion Air Inlet Temp, °C (°F)	50	50	50	50
Exhaust System				
Exhaust stack gas temperature, °C (°F)	420 (788)	515 (959)	368 (694)	437 (819)
Exhaust gas flow rate, m³/min (CFM)	1.8 (64)	2.4 (85)	1.7 (59)	2.2 (78)
Exhaust system backpressure (maximum allowable), kPa (in water)	10.2 (4)	10.2 (4)	10.2 (4)	10.2 (4)
Heat Rejection				
Heat rejection to jacket water, kW (BTU/min)	9.5 (540)	12 (682)	8.3 (472)	10 (569)
Heat rejection to atmosphere from engine & alternator, kW (BTU/min)	4.2 (239)	5.1 (290)	3.2 (182)	4.4 (250)

Alternator[2]		50 Hz						60 Hz			
Duty Cycle		Standby			Prime			Standby		Prime	
Phase		1-Phase			1-Phase			1-Phase		1-Phase	
Voltages, V		220/110	230/115	240/120	220/110	230/115	240/120	220/110	240/120	220/110	240/120
Current, Amps		34	33	31	31	30	28	40	36.7	36.4	33.3
Frame: LCB1114D Excitation: SE	Temperature Rise, @ 40°C	105	105	105	80	80	80				
	Motor Starting Capability @ 30% Voltage Dip, skVA	16	17	18	16	17	18				
Frame: M1415L4 Excitation: SE	Temperature Rise @ 40°C	105	105	105	80	80	80	105	105	80	80
	Motor Starting Capability @ 30% Voltage Dip, skVA	16	17	18	16	17	18	14	16	14	16

WEIGHTS & DIMENSIONS



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
1400 (55.1)	620 (24.4)	996 (39.2)	303 (668)

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, UL 869, UL 2200, IBC, IEC60034-1, ISO 3046, ISO 8528, NEMA MG 1-33 and facilitates the compliance to NFPA 37, NFPA 70, NFPA 99, and NFPA 110.

Note: Codes may not be available in all model configurations. Site level review needed for NFPA 70. 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 rated ekW. 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] 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 IEC60034-1.