

Cat® C1C2

Diesel Generator Sets



Standby & Prime: 50 Hz & 60 Hz



Image shown might not reflect actual configuration.

Engine Model	Cat® C2.2 In-line 4, 4-cycle diesel
Bore x Stroke	84 mm x 100 mm (3.3 in x 3.9 in)
Displacement	2.2 L (135.2 in ³)
Compression Ratio	23.3:1
Aspiration	Naturally Aspirated
Fuel Injection System	Inline
Governor	Mechanical

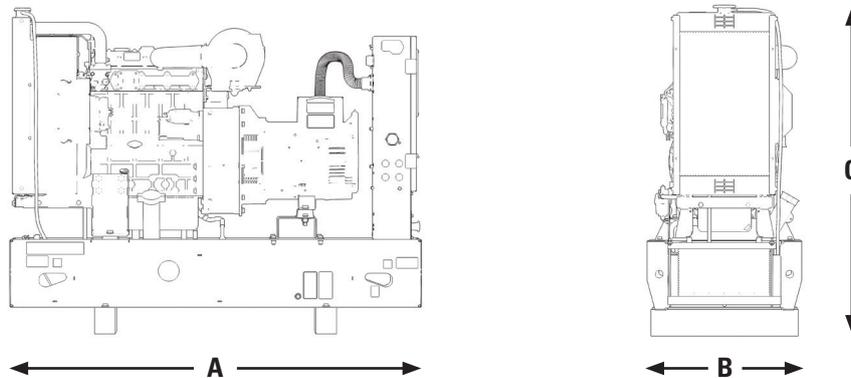
Model	Standby		Prime		Emission Strategy
	50 Hz	60 Hz	50 Hz	60 Hz	
DE16E3S	16.5 kVA	19.4 kVA	15.0 kVA	17.6 kVA	EU IIIA

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	16.5 kVA	19.4 kVA	15.0 kVA	17.6 kVA
Genset power rating with fan @ 1.0 power factor	16.5 ekW	19.4 ekW	15.0 ekW	17.6 ekW
Emissions	EU IIIA			
Fuel Consumption				
110% load with fan, L/hr (gal/hr)	NA		5.5 (1.5)	6.3 (1.7)
100% load with fan, L/hr (gal/hr)	5.5 (1.5)	6.3 (1.7)	4.9 (1.3)	5.7 (1.5)
75% load with fan, L/hr (gal/hr)	4.0 (1.1)	4.8 (1.3)	3.7 (1.0)	4.4 (1.2)
50% load with fan, L/hr (gal/hr)	2.9 (0.8)	3.5 (0.9)	2.7 (0.7)	3.3 (0.9)
Cooling System¹				
Radiator air flow restriction (system), kPa (in water)	0.5 (2)	0.5 (2)	0.5 (2)	0.5 (2)
Radiator air flow, m ³ /min (CFM)	33 (1165)	41.4 (1462)	33 (1165)	41.4 (1462)
Total coolant capacity, L (gal)	6.5 (1.7)	6.5 (1.7)	6.5 (1.7)	6.5 (1.7)
Inlet Air				
Combustion air inlet flow rate, m ³ /min (CFM)	1.5 (51)	1.7 (61)	1.5 (51)	1.7 (61)
Max. Allowable Combustion Air Inlet Temp, °C	50	50	50	50
Exhaust System				
Exhaust stack gas temperature, °C (°F)	505 (941)	510 (950)	445 (833)	440 (824)
Exhaust gas flow rate, m ³ /min (CFM)	3.9 (139)	4.8 (168)	3.6 (129)	4.3 (153)
Exhaust system backpressure (maximum allowable), kPa (in water)	10.2 (41)	10.2 (41)	10.2 (41)	10.2 (41)
Heat Rejection				
Heat rejection to jacket water, kW (BTU/min)	19.6 (1115)	22.2 (1262)	17.0 (967)	19.9 (1132)
Heat rejection to atmosphere from engine & alternator, kW (BTU/min)	6.9 (392)	7.7 (438)	5.4 (307)	6.4 (364)

Alternator ²		50 Hz						60 Hz	
		Standby			Prime			Standby	Prime
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	240/120	240/120
Current, Amps		75	72	69	68	65	63	80.7	73.3
Frame: LCB1114M Excitation: SE	Temperature Rise, @ 40°C	163	163	163	125	125	125	163	125
	Motor Starting Capability @ 30% Voltage Dip, skVA	37	39	41	37	39	41	37	37
Frame: M1455L4 Excitation: SE	Temperature Rise @ 40°C	150	150	150	125	125	125	163	125
	Motor Starting Capability @ 30% Voltage Dip, skVA	37	39	41	37	39	41	37	37

WEIGHTS & DIMENSIONS



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
1500 (59.1)	620 (24.4)	1115 (43.9)	447 (985)

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.