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 in³)
Compression Ratio	23.3:1
Aspiration	Naturally Aspirated
Fuel Injection System	Inline
Governor	Mechanical

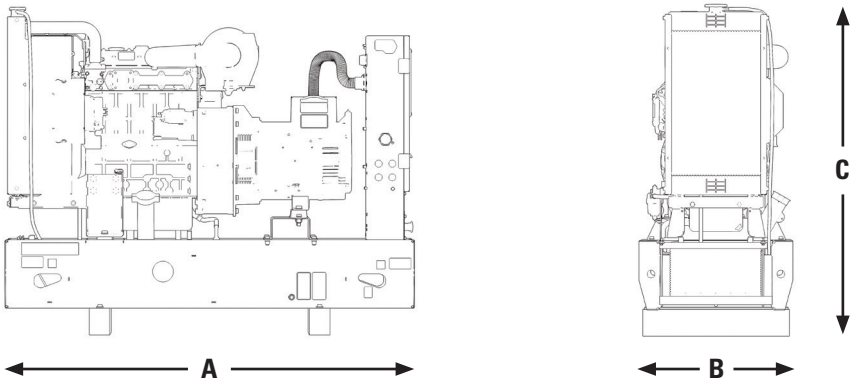
Model	Standby		Prime		Emission Strategy
DE22E3	50 Hz	60 Hz	50 Hz	60 Hz	EU IIIA
	22.0 kVA	25.0 kVA	20.0 kVA	22.5 kVA	

PACKAGE PERFORMANCE

Performance	Standby		Prime	
Frequency	50 Hz	60 Hz	50 Hz	60 Hz
Genset Power Rating	22.0 kVA	25.0 kVA	20.0 kVA	22.5 kVA
Genset power rating with fan @ 0.8 power factor	17.6 ekW	20.0 ekW	16.0 ekW	18.0 ekW
Emissions	EU IIIA			
Fuel Consumption				
110% load with fan, L/hr (gal/hr)	NA		5.9 (1.6)	6.5 (1.7)
100% load with fan, L/hr (gal/hr)	5.9 (1.6)	6.5 (1.7)	5.3 (1.4)	5.8 (1.5)
75% load with fan, L/hr (gal/hr)	4.3 (1.1)	4.9 (1.3)	3.9 (1.0)	4.5 (1.2)
50% load with fan, L/hr (gal/hr)	3.1 (0.8)	3.6 (1.0)	2.9 (0.8)	3.3 (0.9)
Cooling System[1]				
Radiator air flow restriction (system), kPa (in water)	0.5 (2)	0.5 (2)	0.5 (2)	0.5 (2)
Radiator air flow, m³/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, m³/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, m³/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)	7.1 (404)	7.4 (421)	5.7 (324)	6.3 (358)

Alternator[3]		50 Hz						60 Hz	
Duty Cycle		Standby			Prime			Standby	Prime
Phase		3-Phase			3-Phase			3-Phase	3-Phase
Voltages, V		380/220	400/230	415/240	380/220	400/230	415/240	220/127	220/127
Current Amps		33	32	31	30	29	28	65.6	59
Frame: LC1114M Excitation: SE	Temperature Rise @ 40°C	163	163	163	125	125	125	130	105
	Motor Starting Capability @ 30% Voltage Dip skVA	48	52	55	48	52	55	52	52
Frame: M1455L4 Excitation: SE	Temperature Rise @ 40°C	163	163	163	125	125	125	130	105
	Motor Starting Capability @ 30% Voltage Dip skVA	34	37	39	34	37	39	11	11

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 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.