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

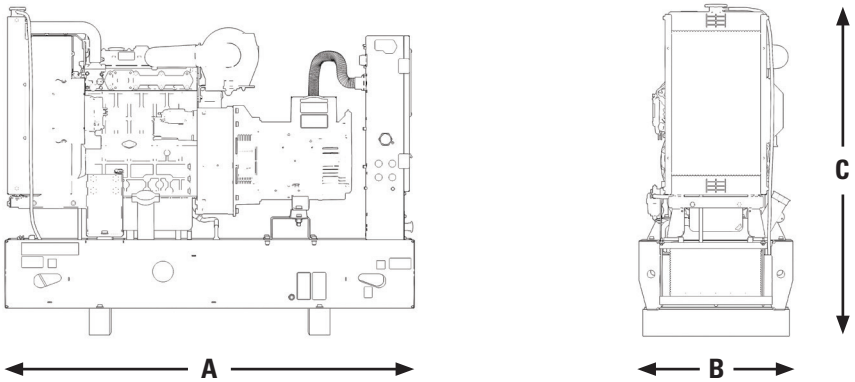
Model	Standby		Prime		Emission Strategy
DE18E3	50 Hz	60 Hz	50 Hz	60 Hz	EU IIIA
	18.0 kVA	22.0 kVA	16.5 kVA	20.0 kVA	

PACKAGE PERFORMANCE

Performance	Standby		Prime	
Frequency	50 Hz	60 Hz	50 Hz	60 Hz
Genset Power Rating	18.0 kVA	22.0 kVA	16.5 kVA	20.0 kVA
Genset power rating with fan @ 0.8 power factor	14.4 ekW	17.6 ekW	13.2 ekW	16.0 ekW
Emissions	EU IIIA			
Fuel Consumption				
110% load with fan, L/hr (gal/hr)	NA		4.8 (1.3)	5.7 (1.5)
100% load with fan, L/hr (gal/hr)	4.8 (1.3)	5.7 (1.5)	4.4 (1.2)	5.2 (1.4)
75% load with fan, L/hr (gal/hr)	3.7 (1.0)	4.4 (1.2)	3.4 (0.9)	4.0 (1.1)
50% load with fan, L/hr (gal/hr)	2.7 (0.7)	3.3 (0.9)	2.6 (0.7)	3.1 (0.8)
Cooling System[1]				
Radiator air flow restriction (system), kPa (in H_2O)	125 (0.5)	125 (0.5)	125 (0.5)	125 (0.5)
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)	413 (776)	459 (858)	364 (687)	396 (745)
Exhaust gas flow rate, m³/min (cfm)	3.2 (114)	4.3 (151)	3.0 (105)	3.9 (138)
Exhaust system backpressure (maximum allowable), kPa (in H_2O)	10.2 (3)	10.2 (3)	10.2 (3)	10.2 (3)
Heat Rejection				
Heat rejection to jacket water, kW (Btu/min)	15.2 (864)	17.2 (978)	13.7 (779)	15.5 (881)
Heat rejection to atmosphere from engine & alternator, kW (Btu/min)	5.8 (330)	6.3 (358)	4.8 (273)	5.4 (307)

Alternator[3]	50 Hz			60 Hz
Voltages	415/240V	400/230V	380/220V	220/127V
Motor starting capability @ 30% Voltage Dip, skVA	28 kVA	26 kVA	24 kVA	26 kVA
Current, amps	25	26	27	58
Temperature Rise, °C	105			125
Frame Size	M1434L4			
Excitation	S.E			

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)	434 (957)

Note: General configuration not to be used for installation. See general dimension drawings for detail.

APPLICABLE CODES AND STANDARDS:

AS1359, NFPA37, NFPA70, NFPA99, NFPA110, IBC, IEC60034-1, ISO3046, ISO8528, NEMA MG1-22, NEMA MG1-33, 2006/95/EC, 2006/42/EC, 2004/108/EC.

Note: Codes may not be available in all model configurations. Please consult your local Cat Dealer representative 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 ISO3046 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] Emissions data measurement procedures are consistent with those described in EPA CFR 40 Part 89, Subpart D & E and ISO8178-1 for measuring HC, CO, PM, NOx. Data shown is based on steady state operating conditions of 77°F, 28.42 in HG and number 2 diesel fuel with 35° API and LHV of 18,390 BTU/lb. The nominal emissions data shown is subject to instrumentation, measurement, facility and engine to engine variations. Emissions data is based on 100% load and thus cannot be used to compare to EPA regulations which use values based on a weighted cycle.

[3] Generator temperature rise is based on a 40°C ambient per NEMA MG1-32.

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