

# Cat® C1C2

## Diesel Generator Sets



### Standby & Prime: 50 Hz



Image shown might not reflect actual configuration

Engine Model	Cat® C1.5 In-line 3, 4-cycle diesel
Bore x Stroke	84 mm x 90 mm (3.3 in x 3.5i n)
Displacement	1.5 L (91.3 in <sup>3</sup> )
Compression Ratio	22.5:1
Aspiration	Naturally Aspirated
Fuel Injection System	Inline
Governor	Mechanical

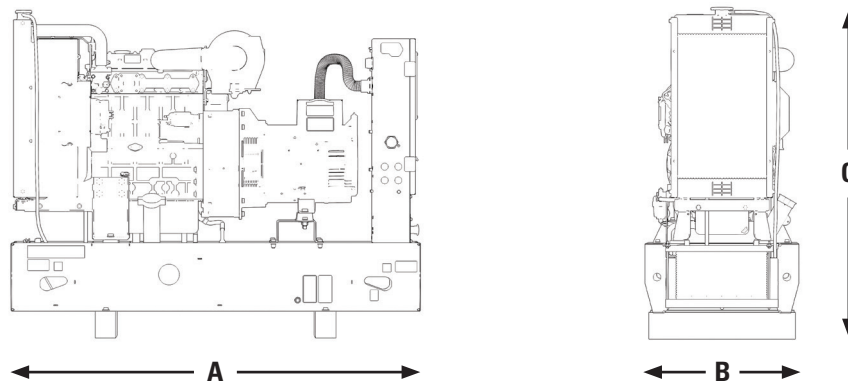
Model	Standby	Prime	Emission Strategy
DE16E0	50 Hz	50 Hz	Low BSFC
	16.0 kVA	14.5 kVA	

### PACKAGE PERFORMANCE

Performance	Standby	Prime
Frequency	50 Hz	50 Hz
Genset Power Rating	16.0 kVA	14.5 kVA
Genset power rating with fan @ 0.8 power factor	12.8 ekW	11.6 ekW
Emissions	Low BSFC	
<b>Fuel Consumption</b>		
110% load with fan, L/hr (gal/hr)	NA	4.7 (1.3)
100% load with fan, L/hr (gal/hr)	4.7 (1.2)	4.1 (1.1)
75% load with fan, L/hr (gal/hr)	3.3 (0.9)	3.0 (0.8)
50% load with fan, L/hr (gal/hr)	2.4 (0.6)	2.3 (0.6)
<b>Cooling System<sup>1</sup></b>		
Radiator air flow restriction (system), kPa (in H <sub>2</sub> O)	125 (0.5)	125 (0.5)
Radiator air flow, m <sup>3</sup> /min (cfm)	28.8 (1017)	28.8 (1017)
Total coolant capacity, L (gal)	6.0 (1.6)	6.0 (1.6)
<b>Inlet Air</b>		
Combustion air inlet flow rate, m <sup>3</sup> /min (cfm)	0 (0)	1.0 (35)
Max. Allowable Combustion Air Inlet Temp, °C	50	50
<b>Exhaust System</b>		
Exhaust stack gas temperature, °C (°F)	580 (1076)	470 (878)
Exhaust gas flow rate, m <sup>3</sup> /min (cfm)	0 (0)	2.2 (78)
Exhaust system backpressure (maximum allowable), kPa (in H <sub>2</sub> O)	10.2 (3)	10.2 (3)
<b>Heat Rejection</b>		
Heat rejection to jacket water, kW (Btu/min)	14.6 (830)	13.3 (756)
Heat rejection to atmosphere from engine & alternator, W (Btu/min)	5.8 (330)	5.1 (290)

Alternator <sup>3</sup>	50 Hz		
	Voltages	415/240V	400/230V
Motor starting capability @ 30% Voltage Dip, skVA	55 kVA	52 kVA	48 kVA
Current, amps	25.0	26.0	27.3
Temperature Rise, °C	105		
Frame Size	LC1114M		
Excitation	S.E		

**WEIGHTS & DIMENSIONS**



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
1500 (59.1)	860 (33.9)	895 (35.2)	333 (734.1)

**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 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 ISO3046 standard conditions.

**DEFINITIONS AND CONDITIONS**

- <sup>1</sup> For ambient and altitude capabilities consult your Cat dealer. Air flow restriction (system) is added to existing restriction from factory.
- <sup>2</sup> 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.
- <sup>3</sup> Generator temperature rise is based on a 40°C ambient per NEMA MG1-32.

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