

# Cat® C4.4

## Diesel Generator Sets



### Standby & Prime: 50 Hz



Image shown might not reflect actual configuration.

Engine Model	Cat® C4.4 Inline 4-stroke Diesel
Bore x Stroke	105.0 mm x 127.0 mm (4.1 in x 5.0 in)
Displacement	4.4 L (268.5 in³)
Compression Ratio	18.23:1
Aspiration	Turbocharged
Fuel Injection System	Inline
Governor	Mechanical

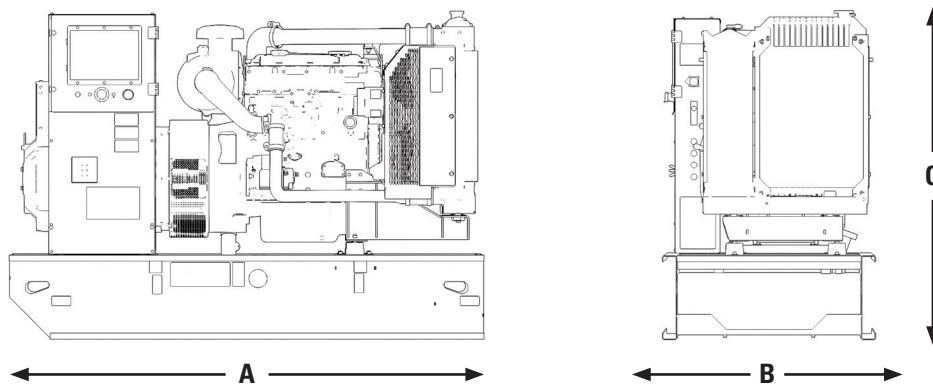
Model	Standby	Prime	Emission Strategy
DE55E3S	50 Hz	50 Hz	EU IIIA
	55.0 kVA (55.0 kW)	50.0 kVA (50.0 kW)	

### PACKAGE PERFORMANCE

Performance	Standby	Prime
Frequency	50 Hz	50 Hz
Genset Power Rating	55.0 kVA	50.0 kVA
Genset power rating with fan @ 1.0 power factor	55.0 kW	50.0 kW
Emissions	EU IIIA	
Performance Number	P3908A	
<b>Fuel Consumption</b>		
Fuel Tank Capacity, litres (US gal)	219 (57.9)	
100% load with fan, L/hr (gal/hr)	18.2 (4.8)	16.5 (4.4)
75% load with fan, L/hr (gal/hr)	13.5 (3.6)	12.3 (3.2)
50% load with fan, L/hr (gal/hr)	9.2 (2.4)	8.4 (2.2)
<b>Cooling System<sup>1</sup></b>		
Radiator air flow, m³/min (CFM)	84.0 (2966)	
Total coolant capacity, L (gal)	16.5 (4.4)	
<b>Inlet Air</b>		
Max. Combustion Air Intake Restriction, kPa (in H <sub>2</sub> O)	6.0 (24.1)	
Combustion air inlet flow rate, m³/min (CFM)	4.9 (173)	4.7 (166)
Max. Allowable Combustion Air Inlet Temp, °C (°F)	50 (122)	
<b>Exhaust System</b>		
Exhaust stack gas temperature, °C (°F)	627 (1161)	570 (1058)
Exhaust gas flow rate, m³/min (CFM)	12.3 (435)	11.2 (396)
Exhaust system backpressure (maximum allowable), kPa (in H <sub>2</sub> O)	12.0 (3.5)	
<b>Heat Rejection</b>		
Heat rejection to jacket water, kW (BTU/min)	46.8 (2661)	47.0 (2673)
Heat rejection to alternator, kW (BTU/min)	5.6 (318)	
Heat rejection to atmosphere from engine, kW (BTU/min)	14.9 (847)	14.0 (796)

Alternator <sup>3</sup>	50 Hz		
Voltages	240V	230V	220V
Motor starting capability @ 30% Voltage Dip, skVA	145	136	128
Current, amps	229	239	250
Temperature Rise, °C	125/40		
Frame Size	M2235L4		
Excitation	S.E		

**WEIGHTS & DIMENSIONS**



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
1925 (75.8)	1120 (44.1)	1361 (53.6)	1022 (2253)

**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, ISO 3046, ISO 8528, 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 ISO 3046 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, NO<sub>x</sub>. 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.