

# Cat<sup>®</sup> 3.3

## Diesel Generator Sets



### Standby & Prime: 50 Hz



Image shown might not reflect actual configuration.

Engine Model	Cat <sup>®</sup> C3.3 Inline 4-stroke Diesel
Bore x Stroke	105.0 mm x 127.0 mm (4.1 in x 5.0 in)
Displacement	3.3 L (201.4 in <sup>3</sup> )
Compression Ratio	18.23:1
Aspiration	Turbocharged
Fuel Injection System	Inline
Governor	Mechanical

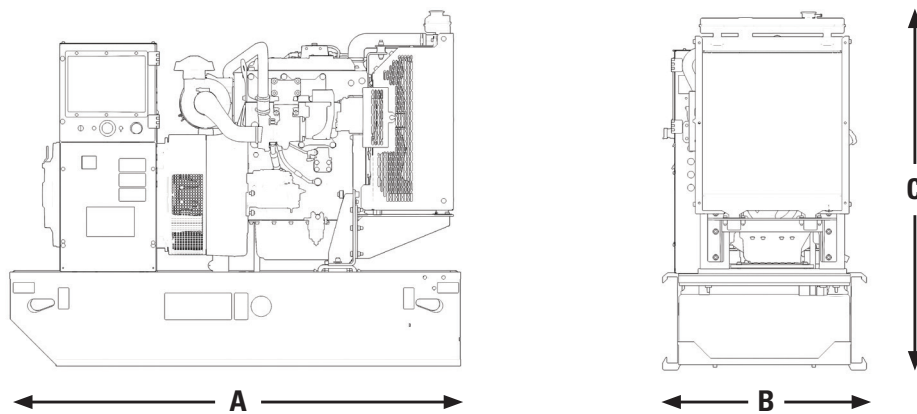
Model	Standby	Prime	Emission Strategy
DE40E2S	50 Hz	50 Hz	EU II
	40.0 kVA (40.0 kW)	36.0 kVA (36.0 kW)	

### PACKAGE PERFORMANCE

Performance	Standby	Prime
Frequency	50 Hz	50 Hz
Genset Power Rating	40.0 kVA	36.0 kVA
Genset power rating with fan @ 1.0 power factor	40.0 kW	36.0 kW
Emissions	EU II	
Performance Number	P3348A	
<b>Fuel Consumption</b>		
Fuel Tank Capacity, litres (US gal)	219 (57.9)	
100% load with fan, L/hr (gal/hr)	11.3 (3.0)	10.2 (2.7)
75% load with fan, L/hr (gal/hr)	8.5 (2.2)	7.7 (2.0)
50% load with fan, L/hr (gal/hr)	6.0 (1.6)	5.5 (1.5)
<b>Cooling System<sup>1</sup></b>		
Radiator air flow, m <sup>3</sup> /min (cfm)	97.8 (3454)	
Total coolant capacity, L (gal)	12.6 (3.3)	
<b>Inlet Air</b>		
Max. Combustion Air Intake Restriction, kPa (in H <sub>2</sub> O)	8.0 (32.1)	
Combustion air inlet flow rate, m <sup>3</sup> /min (cfm)	4.4 (156)	4.3 (153)
Max. Allowable Combustion Air Inlet Temp, °C (°F)	50 (122)	
<b>Exhaust System</b>		
Exhaust stack gas temperature, °C (°F)	581 (1078)	542 (1008)
Exhaust gas flow rate, m <sup>3</sup> /min (cfm)	7.0 (247)	6.0 (212)
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)	42.0 (2388)	38.0 (2161)
Heat rejection to alternator, kW (Btu/min)	4.0 (227)	
Heat rejection to atmosphere from engine, kW (Btu/min)	17.0 (967)	13.0 (739)

Alternator <sup>3</sup>	50 Hz		
	Voltages	240V	230V
Motor starting capability @ 30% Voltage Dip, skVA	88	85	81
Current, amps	167	174	182
Temperature Rise, °C	105/40		
Frame Size	M1775L4		
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)	866 (1909)

**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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