

# Cat® DE33GC

## Diesel Generator Sets



Standby: 50 Hz & 60 Hz



Image shown might not reflect actual configuration

Engine Model	Cat® 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	19.25:1
Aspiration	Naturally Aspirated
Fuel Injection System	Inline
Governor	Mechanical

Model	Standby		Emission Strategy
	50 Hz kVA (ekW)	60 Hz kVA (ekW)	
DE33 GC	33.0 (26.,4)	37.5 (30.0)	Low BSFC

### PACKAGE PERFORMANCE

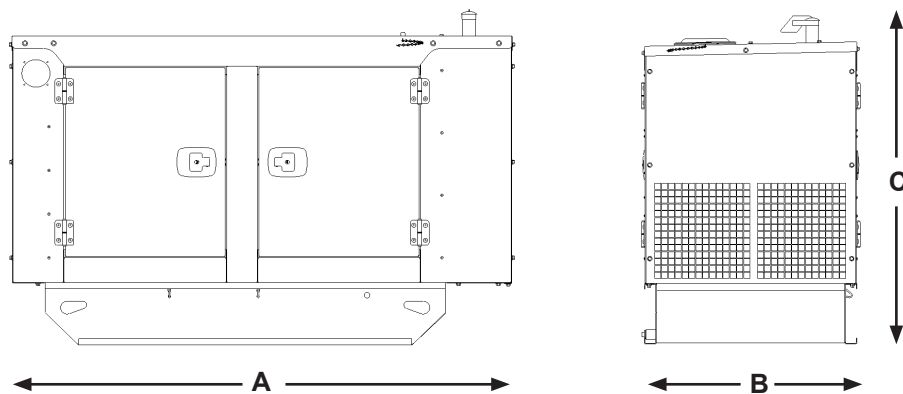
Performance	Standby	
	50 Hz	60 Hz
Genset power rating	33.0 kVA	37.5 kVA
Genset power rating with fan @ 0.8 power factor	26.4 kW	30.0 kW
Emissions	Low BSFC	
Performance number	P2490B	P2490A
<b>Fuel Consumption</b>		
Fuel tank capacity, litres (US gal)	50 (13.2)	
100% load with fan, L/hr (gal/hr)	7.9 (2.1)	9.8 (2.6)
75% load with fan, L/hr (gal/hr)	5.8 (1.5)	6.8 (1.8)
50% load with fan, L/hr (gal/hr)	4.1 (1.1)	5.1 (1.3)
<b>Cooling System<sup>1</sup></b>		
Radiator air flow, m <sup>3</sup> /min (cfm)	69.6 (2458)	90.6 (3200)
Total coolant capacity, L (gal)	10.2 (2.7)	
<b>Inlet Air</b>		
Max. combustion air intake restriction, kPa (in H <sub>2</sub> O)	6.5 (26.1)	
Combustion air inlet flow rate, m <sup>3</sup> /min (cfm)	2.2 (76)	2.6 (91)
<b>Exhaust System</b>		
Exhaust stack gas temperature, °C (°F)	520 (968)	530 (986)
Exhaust gas flow rate, m <sup>3</sup> /min (cfm)	5.8 (205)	6.6 (233)
Exhaust system backpressure (maximum allowable), kPa (in. water)	8.0 (2.4)	10.0 (3.0)
<b>Heat Rejection</b>		
Heat rejection to jacket water, kW (Btu/min)	18.0 (1024)	22.0 (1251)
Heat rejection to alternator, kW (Btu/min)	3.3 (188)	3.7 (210)
Heat rejection to atmosphere from engine, kW (Btu/min)	6 (342)	6 (342)
Heat rejection to exhaust (total) kW (Btu/min)	25.0 (1423)	34.0 (1935)

# DE33 GC Diesel Generator Sets Electric Power



Alternator <sup>2</sup>	50 Hz			60 Hz				
Voltages	380	415	400	480	440	220	380	240
Motor starting capability @ 30% Voltage Dip, skVA	44	53	49	59	50	50	37	44
Current, amps	50.1	45.9	47.6	45.1	49.2	98.4	50.6	87.6
Temperature Rise, °C	163/27	163/27	163/27	163/27	163/27	163/27	163/27	163/27
Frame Size	A1737L4							
Excitation	S.E							

## WEIGHTS & DIMENSIONS



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

Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
1945 (77.3)	870 (34.3)	1238 (48.7)	959 (14,700)

<sup>#</sup>Weight includes standard generator, Enclosure and Integral Tank base

### APPLICABLE CODES AND STANDARDS:

AS1359, NFPA37, NFPA70, NFPA99, NFPA110, IEC 60034-1, ISO 3046, ISO 8528, 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.

**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> Generator temperature rise is based on a 27°C ambient per NEMA MG1-32.

**LET'S DO THE WORK.™**

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