

# Cat® DE450 GC

## Diesel Generator Sets



Standby: 50 Hz



Image shown may not reflect actual configuration

Engine Model	Cat® C13 In-line 6, 4-cycle diesel
Bore x Stroke	130 mm x 157 mm (5.1 in x 6.2 in)
Displacement	12.5 L (763 in <sup>3</sup> )
Compression Ratio	15.8:1
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel Injection System	EUI
Governor	Electronic ADEM™ A4 - G3 Class* capable

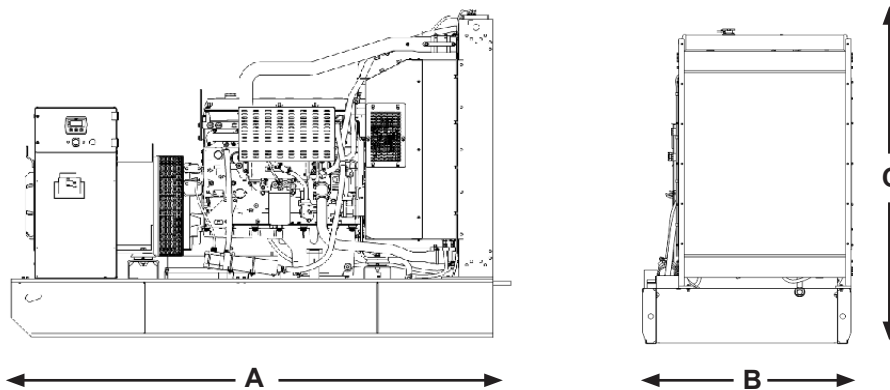
Model	Standby 50 Hz kVA (ekW)	Emission Strategy
DE450 GC	450.0 (360.0)	Low BSFC

### PACKAGE PERFORMANCE

Performance	Standby
	50 Hz
Genset power rating	450.0
Genset power rating with fan @ 0.8 power factor	360.0
Emissions	Low BSFC
Performance number	EM0426
<b>Fuel Consumption</b>	
Fuel tank capacity, Litres (US gal)	686 (181.2)
100% load with fan, L/hr (gal/hr)	92.6 (24.46)
75% load with fan, L/hr (gal/hr)	69 (18.23)
50% load with fan, L/hr (gal/hr)	47.3 (12.50)
<b>Cooling System<sup>1</sup></b>	
Radiator air flow, m <sup>3</sup> /min (cfm)	398 (14055)
Radiator air flow restriction (system), kPa (in. water)	0.12 (0.48)
Total coolant capacity, L (gal)	47 (12.4)
<b>Inlet Air</b>	
Max. combustion air intake restriction, kPa (in. water)	6.22 (25)
Combustion air inlet flow rate, m <sup>3</sup> /min (kg/hr)	24.7 (1740)
<b>Exhaust System</b>	
Exhaust stack gas temperature, °C (°F)	531.1 (988)
Exhaust gas flow rate, m <sup>3</sup> /min (cfm)	70.4 (2486)
Exhaust system backpressure (minimum allowable), kPa (in. water)	N/A
Exhaust system backpressure (maximum allowable), kPa (in. water)	9.95 (40)
<b>Heat Rejection</b>	
Heat rejection to jacket water, kW (Btu/min)	137 (7775)
Heat rejection to exhaust (total), kW (Btu/min)	326 (18562)
Heat rejection to atmosphere from engine, kW (Btu/min)	56 (3177)
Heat rejection to Aftercooler, kW (Btu/min)	71 (4014)

Alternator <sup>2</sup>	50 Hz		
	Voltages	380V	415V
Motor starting capability @ 30% Voltage Dip, skVA	1020	1133	1361
Current, amps	626.04	649.52	683.70
Temperature Rise, °C	163		
Frame Size	A2955L41		
Excitation	S.E		

### WEIGHTS & DIMENSIONS



Length "A" mm (in)	Width "B" mm (in)	Height "C" mm (in)	Dry Weight kg (lb)
3100 (122.0)	1338 (52.6)	2129 (83.8)	2904 (6402.2)

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

#### 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.
- \* Governing Class capability as per ISO8528-5. Consult your local Cat dealer for configuration and site specific transient performance classification.

## LET'S DO THE WORK.™

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