

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 ³)
Compression Ratio	15.8:1
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel Injection System	EUI
Governor	Electronic ADEM™ A4

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

PACKAGE PERFORMANCE

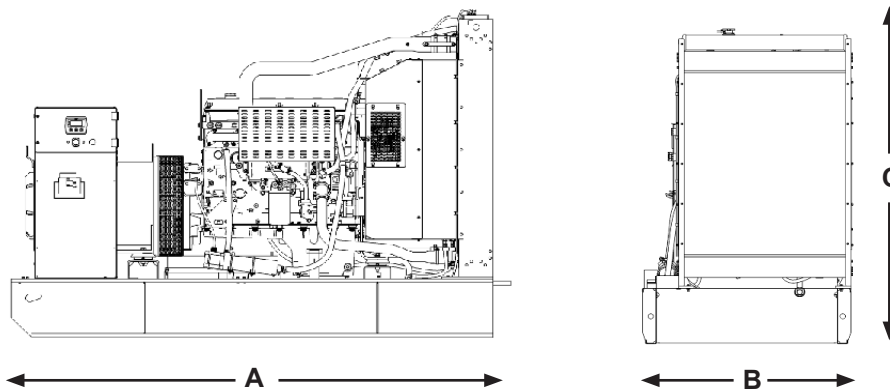
Performance	Standby
	50 Hz
Genset power rating	450.0
Genset power rating with fan @ 0.8 power factor	360.0
Emissions	Low BSFC
Performance number	EM0426
Fuel Consumption	
Fuel tank capacity, litres (US gal)	686 (181.2)
100% load with fan, L/hr (gal/hr)	92.6 (24.46)
75% load with fan, L/hr (gal/hr)	69 (18.23)
50% load with fan, L/hr (gal/hr)	47.3 (12.50)
Cooling System¹	
Radiator air flow, m ³ /min (cfm)	398 (14055)
Radiator air flow restriction (system), kPa (in. water)	0.12 (0.48)
Total coolant capacity, L (gal)	47 (12.4)
Inlet Air	
Max. combustion air intake restriction, kPa (in. water)	6.22 (25)
Combustion air inlet flow rate, m ³ /min (kg/hr)	24.7 (1740)
Exhaust System	
Exhaust stack gas temperature, °C (°F)	531.1 (988)
Exhaust gas flow rate, m ³ /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)
Heat Rejection	
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)

DE450 GC Diesel Generator Sets Electric Power



Alternator ²	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

- ¹ For ambient and altitude capabilities consult your Cat dealer. Air flow restriction (system) is added to existing restriction from factory.
- ² Generator temperature rise is based on a 27°C ambient per NEMA MG1-32.

LET'S DO THE WORK.™

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