

Cat® DE450 GC

Diesel Generator Sets



Standby: 50 Hz



Image shown might 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 in³)
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, m³/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 H₂O)	6.22 (25)
Combustion air inlet flow rate, m³/min (kg/hr)	24.7 (1740)
Exhaust System	
Exhaust stack gas temperature, °C (°F)	531.1 (988)
Exhaust gas flow rate, m³/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)

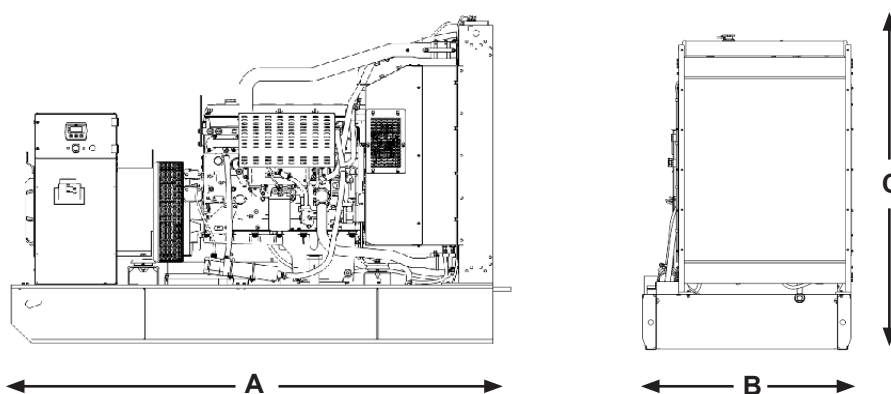
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Electric Power



Alternator ²	50 Hz		
Voltages	380V	415V	400V
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



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)
3100 (122.04)	1338 (52.6)	2129 (83.8)	2904 (6402.2)

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.

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