

Cat® DE550 GC

Diesel Generator Sets



Standby & Prime: 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 in ³)
Compression Ratio	15.8:1
Aspiration	Turbocharged Air-to-Air Aftercooled
Fuel Injection System	EUI
Governor	Electronic ADEM™ A4 – G3 Class* capable

Model	Standby	Prime	Emission Strategy
DE550 GC	550 kVA	500 kVA	Low BSFC

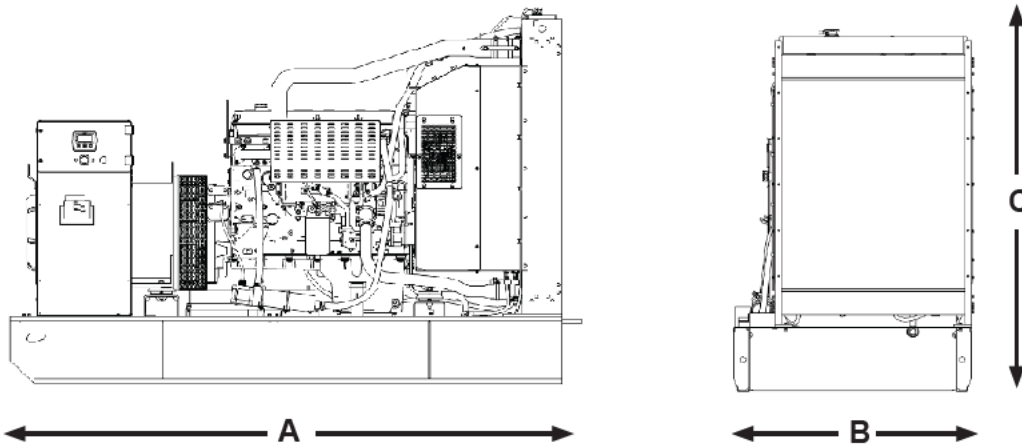
PACKAGE PERFORMANCE

Performance	Standby	Prime
Genset Power Rating, kVA	550	500
Genset power rating with fan @ 0.8 power factor, kW	440	400
Emissions	Low BSFC	
Performance Number	EM5582	EM5683
Fuel Consumption		
100% load with fan, L/hr (gal/hr)	110.3 (28.9)	99.0 (26.2)
75% load with fan, L/hr (gal/hr)	80.8 (21.1)	71.9 (19.0)
50% load with fan, L/hr (gal/hr)	54.6 (14.3)	49.7 (13.1)
25% load with fan, L/hr (gal/hr)	31.2 (8.2)	28.7 (7.6)
Cooling System¹		
Radiator air flow, m ³ /min (CFM)	467 (16492)	
Radiator air flow restriction (system), kPa (in. water)	0.125 (0.5)	
Total coolant capacity, L (gal)	47 (12.4)	
Inlet Air		
Combustion air inlet flow rate, m ³ /min (CFM)	30.7 (1083)	29.4 (1037)
Max. combustion air intake restriction, kPa (in. water)	6.2 (25)	6.2 (25)
Exhaust System		
Exhaust stack gas temperature, °C (°F)	529 (986)	508 (946)
Exhaust gas flow rate, m ³ /min (CFM)	87.8 (3099)	81.1 (2863)
Exhaust system backpressure (maximum allowable), kPa (in water)	14.7 (59)	14.7 (59)

Heat Rejection	Standby	Prime
Heat rejection to jacket water, kW (BTU/min)	159 (9042)	145 (8231)
Heat rejection to exhaust (total), kW (BTU/min)	410 (23316)	373 (21184)
Heat rejection to aftercooler, kW (BTU/min)	103 (5858)	92.4 (5252)
Heat rejection to atmosphere from engine, kW (BTU/min)	30.5 (1735)	27.4 (1556)

Alternator ²	Standby			Prime		
Voltages	380	415	400	380	415	400
Motor starting capability @ 30% Voltage Dip, skVA	1328	1776	1474	1328	1776	1474
Current, Amps	765	794	836	695	721	759
Temperature Rise, °C	163			163		
Frame Size	A2985L41			A2985L41		
Excitation	S.E			S.E		

WEIGHTS & DIMENSIONS



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
3100 (122.0)	1338 (52.6)	2168 (85.3)	3036 (6693.2)

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

APPLICABLE CODES AND STANDARDS:

AS1359, IEC60034-1, ISO 3046, ISO 8528, NEMA MG1-33, EAC, CE, UKCA.

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. 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.

Fuel Rates Fuel rates are based on diesel with a 35 API gravity; a lower heating value is 42,780 kJ/kg (18,390 BTU/lb) when used at 15°C (59°F), where the density is 850 gm/l (7.0936 lbs/gal).

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 IEC60034-1.

* Governing Class capability as per ISO 8528-5. Consult your local Cat dealer for configuration and site specific transient performance classification.