Cat® DE500S GC
Diesel Generator Sets

Standby & Prime: 60 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 – G3 Class* capable

Model	Standby	Prime	Emission Strategy
DE500S GC	500 ekW	455 ekW	Low BSFC

PACKAGE PERFORMANCE

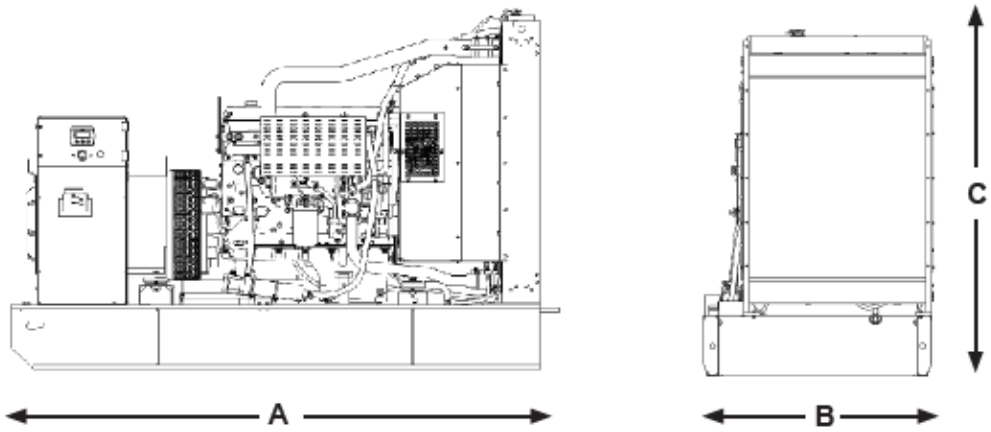
Performance	Standby	Prime
Genset Power Rating, kVA	625	568.7
Genset power rating with fan @ 0.8 power factor, ekW	500	455
Emissions	Low BSFC	
Performance Number	EM5580	EM5682
Fuel Consumption		
100% load with fan, L/hr (gal/hr)	127.4 (33.6)	115.6 (30.5)
75% load with fan, L/hr (gal/hr)	95.5 (25.2)	86.8 (22.9)
50% load with fan, L/hr (gal/hr)	64.7 (17.1)	59.8 (15.8)
25% load with fan, L/hr (gal/hr)	37.8 (10.0)	35.4 (9.4)
Cooling System[1]		
Radiator air flow, m³/min (CFM)	658 (23237)	
Radiator air flow restriction (system), kPa (in. water)	0.125 (0.5)	
Total coolant capacity, L (gal)	47 (12.4)	
Inlet Air		
Max. combustion air intake restriction, kPa (in. water)	6.2 (25)	6.2 (25)
Combustion air inlet flow rate, m³/min (CFM)	37.6 (1330)	36 (1272)
Exhaust System		
Exhaust stack gas temperature, °C (°F)	490 (914)	490 (886)
Exhaust gas flow rate, m³/min (CFM)	103 (3630)	95.5 (3374)
Exhaust system backpressure (maximum allowable), kPa (in. water)	18.6 (75)	18.6 (75)

Heat Rejection		
Heat rejection to jacket water, kW (BTU/min)	175 (9978)	159 (9020)
Heat rejection to exhaust (total), kW (BTU/min)	467 (26576)	426 (24250)
Heat rejection to atmosphere from engine, kW (BTU/min)	47.4 (2696)	43.4 (2466)
Heat rejection to aftercooler, kW (BTU/min)	139 (7891)	124 (7037)

DE500S GC Diesel Generator Sets
Electric Power

Alternator[2]	Standby					Prime		
Voltages	480V	440V	240V	220V	380V	480V	440V	240V
Motor starting capability @ 30% Voltage Dip, skVA	1769	1485	1769	1485	1108	1769	1485	1769
Current, Amps	752	820	1503.5	1595.5	852	684	746	1368
Temperature Rise,°C	130	130	130	130	130	130	130	130
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 (122.04)	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 ekW 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 40°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.

©2026 Caterpillar
All rights reserved.
Materials and specifications are subject to change without notice.
The International System of Units (SI) is used in this publication.
CAT, CATERPILLAR, LET'S DO THE WORK, their respective logos, "Caterpillar Corporate Yellow", the "Power Edge" and Cat "Modern Hex" trade dress as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.