

# Cat<sup>®</sup> DE50 GC

## Diesel Generator Sets



### Standby and Prime: 50 Hz & 60 Hz



Image shown may not reflect actual configuration

Engine Model	Cat <sup>®</sup> C3.3 Inline 4-stroke Diesel
Bore x Stroke	105.0 mm x 127.0 mm (4.1 in x 5.0 in)
Displacement	3.3 L (201.4 in <sup>3</sup> )
Compression Ratio	17.25:1
Aspiration	Turbocharged
Fuel Injection System	Inline
Governor	Mechanical

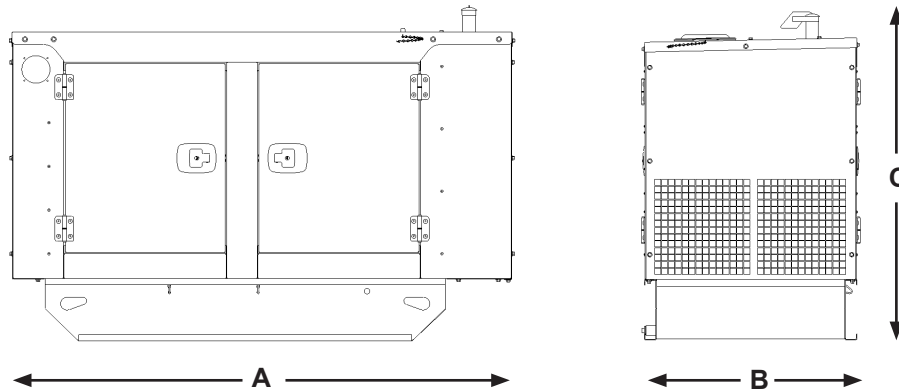
Model	Standby		Prime (SRR)	Emission Strategy
	50 Hz kVA (ekW)	60 Hz kVA (ekW)	50 Hz kVA (ekW)	
<b>DE50 GC</b>	50 (40)	56.3 (45)	45 (36)	Low BSFC

### PACKAGE PERFORMANCE

Performance	Standby		Prime (SRR)
	50 Hz	60 Hz	50 Hz
Genset power rating, kVA	50	56.3	45
Genset power rating with fan @ 0.8 power factor, ekW	40	45	36
Emissions	Low BSFC		
Performance number	P2502B	P2502A	-
<b>Fuel Consumption</b>			
Fuel tank capacity, L (gal)	103 (27.2)		
100% load with fan, L/hr (gal/hr)	11.7 (3.1)	12.9 (3.4)	10.8 (2.8)
75% load with fan, L/hr (gal/hr)	8.7 (2.3)	9.7 (2.6)	8.0 (2.1)
50% load with fan, L/hr (gal/hr)	6.0 (1.6)	7.0 (1.9)	5.6 (1.4)
<b>Cooling System<sup>1</sup></b>			
Radiator air flow, m <sup>3</sup> /min (CFM)	86.4 (3051)	105.6 (3729)	86.4 (3051)
Total coolant capacity, L (gal)	10.2 (2.7)		
<b>Inlet Air</b>			
Max. combustion air intake restriction, kPa (in. water)	8.0 (32.1)		
Combustion air inlet flow rate, m <sup>3</sup> /min (CFM)	3.1 (109)	3.9 (138)	2.9 (102)
<b>Exhaust System</b>			
Exhaust stack gas temperature, °C (°F)	537 (999)	551 (1024)	492 (918)
Exhaust gas flow rate, m <sup>3</sup> /min (CFM)	7.7 (272)	9.5 (335)	7.0 (247)
Exhaust system backpressure (maximum allowable), kPa (in. water)	10.0 (3.0)	15.0 (4.4)	10.0 (3.0)
<b>Heat Rejection</b>			
Heat rejection to jacket water, kW (BTU/min)	30.0 (1706)	34.0 (1934)	26.0 (1478)
Heat rejection to alternator, kW (BTU/min)	5.2 (296)	5.4 (307)	4.0 (227)
Heat rejection to atmosphere from engine, kW (BTU/min)	8.0 (455)	9.0 (512)	7.8 (443)
Heat rejection to exhaust (total), kW (BTU/min)	35.0 (1992)	43.0 (2448)	30.0 (1706)

Alternator <sup>2</sup>	50 Hz (Standby/Prime)			60 Hz (Standby)				
	Voltages	380	415	400	480	440	220	380
Motor starting capability @ 30% Voltage Dip, skVA	81	96	90	107	90	90	67	81
Current, Amps (Standby/Prime)	76 / 68	69.5 / 62.5	72 / 64	68	74	148	73.5	127.5
Temperature Rise, °C	163/27	163/27	163/27	130/40	163/27	163/27	163/27	163/27
Frame Size	A1773L4							
Excitation	S.E							

### WEIGHTS & DIMENSIONS



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

Length "A" mm (in)	Width "B" mm (in)	Height "C" mm (in)	Dry Weight <sup>#</sup> kg (lb)
2278 (93.6)	900 (35.4)	1332 (52.4)	1031 (2272.9)

<sup>#</sup>Weight includes standard generator, Enclosure and Integral Tank base

#### APPLICABLE CODES AND STANDARDS:

AS1359, IEC60034-1, ISO3046, ISO8528, 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 (SRR):** Output available with varying load. 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. Maximum run time not to exceed 2000 hours per year.

#### 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 IEC 60034-1.

**RATINGS:** Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO 3046 standard conditions.

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