

# Cat® DE220 GC

## Diesel Generator Sets



### Standby and Prime: 50 Hz



Image shown may not reflect actual configuration

Engine Model	Cat® C7.1 Inline 4-stroke Diesel
Bore x Stroke	105.0 mm x 135.0 mm (4.1 in x 5.3 in)
Displacement	7.0 L (427.8 in³)
Compression Ratio	16.0:1
Aspiration	Turbocharged Air To Air Charge Cooled
Fuel Injection System	Inline
Governor	Mechanical - G3 Class* capable

Model	Standby	Prime (SRR)	Emission Strategy
	50 Hz kVA (ekW)	50 Hz kVA (ekW)	
<b>DE220 GC</b>	220 (176)	198 (158.4)	Low BSFC

### PACKAGE PERFORMANCE

Performance	Standby	Prime (SRR)
	50 Hz	
Genset power rating	220 kVA	198 kVA
Genset power rating with fan @ 0.8 power factor	176 ekW	158.4 ekW
Emissions	Low BSFC	
Performance number	P6788B	-
Fuel Consumption		
Fuel tank capacity, L (gal)	325 (85.9)	
100% load with fan, L/hr (gal/hr)	49.2 (13.0)	44.3 (11.7)
75% load with fan, L/hr (gal/hr)	37.8 (10.0)	34.1 (9.0)
50% load with fan, L/hr (gal/hr)	25.6 (6.8)	23.1 (6.1)
Cooling System¹		
Radiator air flow, m³/min (CFM)	307 (10849)	
Total coolant capacity, L (gal)	27.0 (7.1)	
Inlet Air		
Max. combustion air intake restriction, kPa (in. water)	5.0 (20.1)	
Combustion air inlet flow rate, m³/min (CFM)	13.2 (466)	12.0 (423)
Exhaust System		
Exhaust stack gas temperature, °C (°F)	550 (1022)	538 (1000)
Exhaust gas flow rate, m³/min (CFM)	36.8 (1300)	33.2 (1172)
Exhaust system backpressure (maximum allowable), kPa (in. water)	6.0 (1.8)	
Heat Rejection		
Heat rejection to jacket water, kW (BTU/min)	81.0 (4606)	78.0 (4436)
Heat rejection to alternator, kW (BTU/min)	15.2 (864)	15.2 (864)
Heat rejection to atmosphere from engine, kW (BTU/min)	13.2 (751)	12.2 (694)
Heat rejection to exhaust (total), kW (BTU/min)	158.0 (8985)	147.0 (8360)

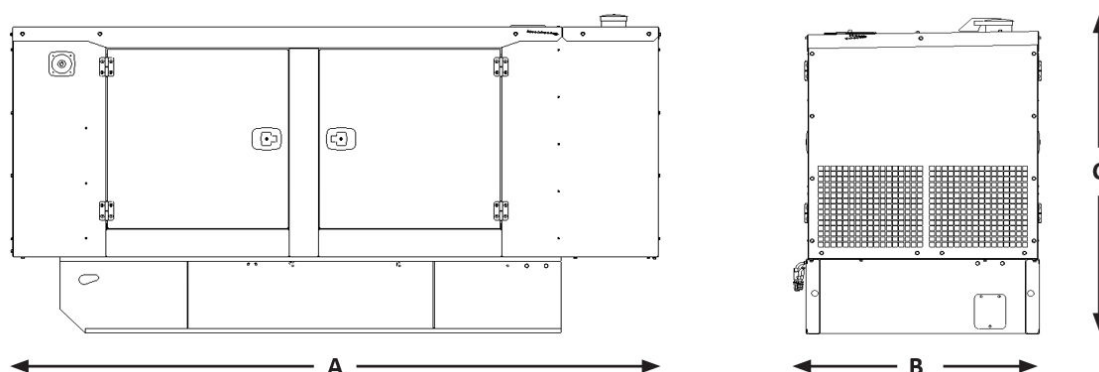
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## Electric Power



Alternator <sup>2</sup>	50 Hz (Standby/Prime)		
Voltages	380	415	400
Motor starting capability @ 30% Voltage Dip, skVA	545	649	601
Current, Amps	329 / 296	303 / 272	318 / 286
Temperature Rise, °C	163/27		
Frame Size	A2637L41		
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)
3325 (130.9)	1134 (44.6)	1666 (65.6)	1933 (4261.5)

<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.

\* Governing Class capability as per ISO8528-5. Consult your local Cat dealer for configuration and site specific transient performance classification.

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