

# Cat® D50 GC

## Diesel Generator Sets



Standby : 60 Hz



Image shown might not reflect actual configuration

Engine Model	Cat® C4.4 In-line 4, 4-cycle Diesel
Bore x Stroke	105 mm x 127 mm (4.1 in x 5.0 in)
Displacement	4.4 L (269 in <sup>3</sup> )
Compression Ratio	18.2:1
Aspiration	Turbocharged
Fuel Injection System	Common Rail

Model	Standby	Emission Strategy
D50 GC	50 ekW	EPA TIER III

### PACKAGE PERFORMANCE

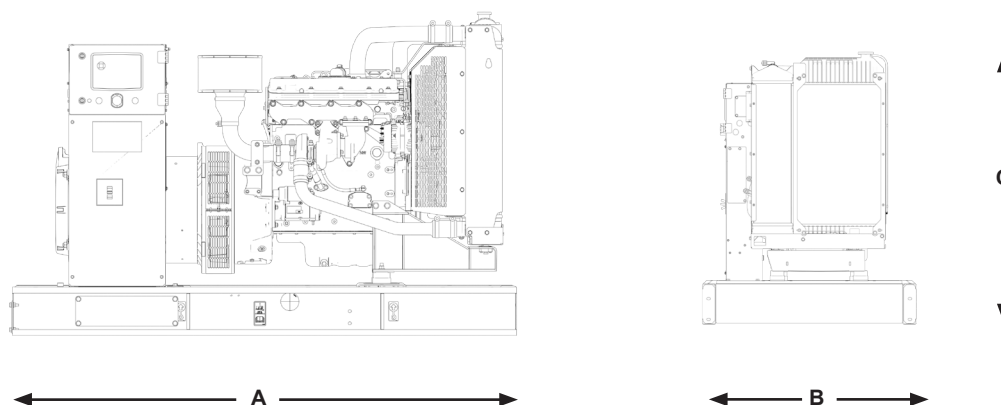
Performance	Standby	
	3-Phase	1-Phase
Frequency	60 Hz	60 Hz
Genset Power Rating	63 kVA	50 kVA
Genset power rating with fan, 3p@ 0.8 & 1p@1.0 power factor	50 ekW	50 ekW
Performance Number	P3454A	P3454A
<b>Fuel Consumption</b>		
100% load with fan, L/hr (gal/hr)	16.3 (4.3)	15.9 (4.2)
75% load with fan, L/hr (gal/hr)	12.4 (3.3)	12.0 (3.2)
50% load with fan, L/hr (gal/hr)	9.0 (2.4)	8.7 (2.3)
<b>Cooling System<sup>1</sup></b>		
Radiator air flow restriction (system), kPa (in. water)	0.12 (0.48)	
Engine coolant capacity, L (gal)	7.0 (1.8)	
Radiator coolant capacity, L (gal)	9.5 (2.5)	
Total coolant capacity, L (gal)	16.5 (4.3)	
<b>Inlet Air</b>		
Combustion air inlet flow rate, m <sup>3</sup> /min (CFM)	5.3 (187.2)	5.3 (187.2)
Max. Allowable Combustion Air Inlet Temp, °C (°F)	45 (113)	
<b>Exhaust System</b>		
Exhaust stack gas temperature, °C (°F)	571 (1060)	571 (1060)
Exhaust gas flow rate, m <sup>3</sup> /min (CFM)	13.7 (483.8)	13.7 (484)
Exhaust system backpressure (maximum allowable), kPa (in. water)	15.0 (60.2)	15.0 (60.2)
<b>Heat Rejection</b>		
Heat rejection to exhaust (total), kW (BTU/min)	66.9 (3805)	66.9 (3805)
Heat rejection to atmosphere from engine, kW (BTU/min)	14.9 (847.3)	14.9 (847.3)
<b>Emissions (Nominal)<sup>2</sup></b>		
NOx + HC, g/kW-hr	4.42	4.42
CO, g/kW-hr	1.02	1.02
PM, g/kW-hr	0.26	0.26

# D50 GC Diesel Generator Sets Electric Power



Alternator <sup>3</sup>				
Voltages	480V	208V	600V	240V
Motor starting capability @ 30% Voltage Dip, skVA	94	106	197	114
Current, Amps	75	173	60	208
Frame Size	M1756L4	M1775L4	M1775L4	M1775L4
Excitation	SE	SE	AREP	SE
Temperature Rise, °C	130	130	105	130

## WEIGHTS & DIMENSIONS



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
1962 (77.2)	1100 (43.3)	1220 (48.0)	932 (2055)

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

### APPLICABLE CODES AND STANDARDS:

CSA C22.2 No 100-04, UL142, UL489, UL869, cUL/UL2200, NFPA 37, NFPA 70, NFPA 99, NFPA 110, IBC, IEC60034-1, ISO 3046, ISO 8528, NEMA MG 1-33.

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 ISO3046 standard conditions.

### 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> Emissions data measurement procedures are consistent with those described in EPA CFR 40 Part 89, Subpart D & E and ISO8178-1 for measuring HC, CO, PM, NOx. Data shown is based on steady state operating conditions of 77° F, 28.42 in HG and number 2 diesel fuel with 35° API and LHV of 18,390 BTU/lb. The nominal emissions data shown is subject to instrumentation, measurement, facility and engine to engine variations. Emissions data is based on 100% load and thus cannot be used to compare to EPA regulations which use values based on a weighted cycle.

<sup>3</sup> UL 2200 Listed packages may have oversized generators with a different temperature rise and motor starting characteristics. Generator temperature rise is based on a 40° C ambient per NEMA MG1-32.

[www.cat.com/electricpower](http://www.cat.com/electricpower)

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