

Cat® DG350

Gas Generator Sets



Image shown might not reflect actual configuration

Engine Model	Cat® CG18 In-line 6, 4-cycle Natural Gas
Bore x Stroke	145 mm x 183 mm (5.7 in x 7.2 in)
Displacement	18.1 L (1106.3 in³)
Compression Ratio	10.5:1
Aspiration	Turbocharged, Air-to-Air Aftercooled
Fuel System	Venturi – Mixer
Governor	Electronic ADEM™ A4 - G2 Class* capable

Model	Standby / Demand Response Power	Emission Strategy
DG350	60 Hz	U.S. EPA Certified for Emergency and Non-Emergency
	350 ekW (437.5 kVA)	

PACKAGE PERFORMANCE

Performance	Standby	Demand Response
Performance Number	EM6247	EM6188
Frequency, Hz	60	
Genset power rating with fan @ 0.8 power factor, ekW	350	
Fuel Consumption		
Utility Fuel Pressure – Standard Pressure, psi [#]	1.25 – 1.5	
Utility Fuel Pressure – Low Pressure (optional), psi [#]	0.25 – 1.5	
100% load with fan, CFH (m³/hr)	3962 (112.2)	4110 (116.4)
75% load with fan, CFH (m³/hr)	3157 (89.4)	3277 (92.8)
50% load with fan, CFH (m³/hr)	2352 (66.6)	2433 (68.9)
Cooling System¹		
Radiator air flow restriction (system), kPa (in. water)	0.12 (0.48)	
Radiator air flow, CFM (m³/min)	24826 (703)	
Engine coolant capacity, L (gal)	27 (7.2)	
Radiator coolant capacity, L (gal)	62 (16.4)	
Total coolant capacity, L (gal)	89 (23.6)	
Inlet Air		
Combustion air inlet flow rate, lb/hr (m³/min)	4918 (31.7)	5231 (33.7)
Exhaust System		
Exhaust stack gas temperature, °C (°F)	550 (1022)	548 (1018)
Exhaust gas flow rate, lb/hr (m³/min)	5117 (92.8)	5427 (98.4)
Exhaust system backpressure (minimum allowable), kPa (in. water)	1 (4.02)	
Exhaust system backpressure (maximum allowable), kPa (in. water)	5 (20.1)	
Heat Rejection		
Heat rejection to coolant (total), kW (BTU/min)	142 (8075)	145 (8246)
Heat rejection to atmosphere to aftercooler, kW (BTU/min)	106 (6028)	122 (6938)
Heat rejection to atmosphere from engine, kW (BTU/min)	85 (4833)	86 (4890)
Heat rejection to exhaust (total), kW (BTU/min)	389 (22122)	411 (23373)

PACKAGE PERFORMANCE (contd.)

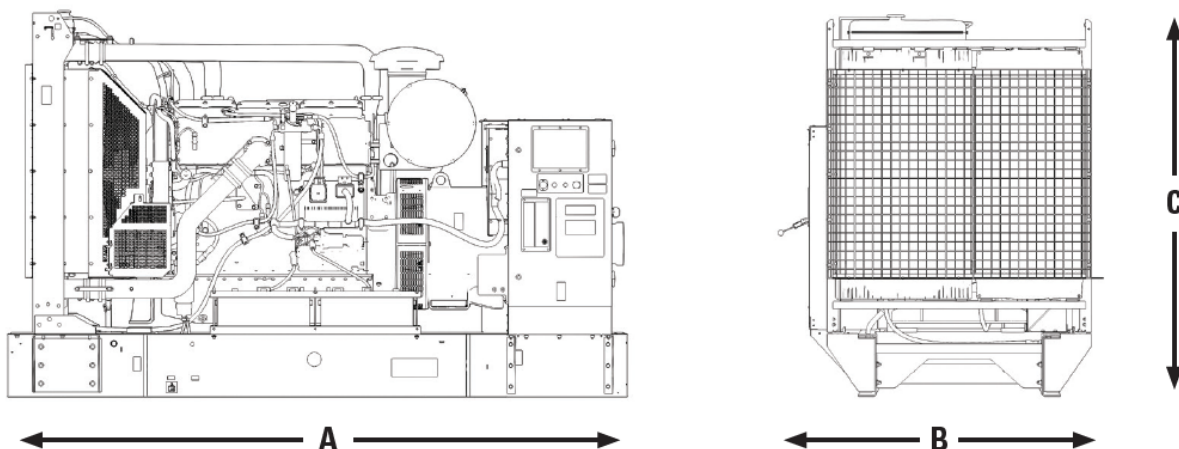
Lube System		
Sump Refill with Filter, L (gal)	40 (10.6)	
Maximum oil temperature, °C (°F)	110 (230)	
Maximum oil capacity, L (gal)	35 (9.3)	
Minimum oil capacity, L (gal)	23 (6.1)	

Emissions	Standby	Demand Response
Meets EPA Stationary Emergency and Non-Emergency Limits (g/bhp-hr)	NOx: 2.0 CO: 4.0 VOC: 1	NOx: 1.0 CO: 2.0 VOC: 0.7

ALTERNATOR DATA

Alternator²						
Duty Cycle		Standby/Demand Response				
Phase		3-Phase				
Voltages, V		480/277	240/139	208/120	240/120	600/346
Current, Amps		526	1053	1214	1053	421
Frame: LC6114B Excitation: SE	Temperature Rise @ 40°C	130	130	130	130	
	Motor Starting Capability @ 30% Voltage Dip, skVA	800	800	610	610	
Frame: LC6114C Excitation: SE	Temperature Rise @ 40°C	105	105			
	Motor Starting Capability @ 30% Voltage Dip, skVA	802	802			
Frame: LC6114D Excitation: SE	Temperature Rise @ 40°C	80	80	105	105	
	Motor Starting Capability @ 30% Voltage Dip, skVA	824	824	627	627	
Frame: LC6114F Excitation: SE	Temperature Rise @ 40°C			80	80	
	Motor Starting Capability @ 30% Voltage Dip, skVA			1001	1001	
Frame: LC6124B Excitation: AREP	Temperature Rise @ 40°C					130
	Motor Starting Capability @ 30% Voltage Dip, skVA					849
Frame: LC6124D Excitation: AREP	Temperature Rise @ 40°C					80
	Motor Starting Capability @ 30% Voltage Dip, skVA					1287

WEIGHTS & DIMENSIONS



On Narrow Skid Base

Length "A" mm (in)	Width "B" mm (in)	Height "C" mm (in)	Dry Weight kg (lb)
3542 (139)	2011 (79)	2085 (82.2)	4689 (10337)

On Wide Skid Base

Length "A" mm (in)	Width "B" mm (in)	Height "C" mm (in)	Dry Weight kg (lb)
4986 (196)	2170 (85)	2080 (82)	5017 (11060)

Note: General configuration not to be used for installation. See general dimension drawing for details.

APPLICABLE CODES AND STANDARDS:

CSA C22.2 No 100-04, UL 489, UL 869, UL 2200, IBC, IEC60034-1, ISO 3046, ISO 8528, NEMA MG 1-22, NEMA MG 1-33 and facilitates the compliance to NFPA 37, NFPA 70, NFPA 99, NFPA 110.

Codes may not be available for all model configurations. Site level review needed for NFPA70. Please consult your Cat dealer for availability.

STANDBY POWER: Output available with varying load for the duration of the interruption of the normal source power. Average power output is 70% of the standby rated kW. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

DEMAND RESPONSE POWER: Output available with varying load when participating in a demand response or economic dispatch program. Average power output is 70% of the standby rated kW. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

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

1 CFH = 1000 BTU/HR

Fuel Rates are based on LHV (lower heat values) of 905 BTU/SCF for Natural Gas @77°F (25°C) and 498.6 ft (152m) above sea level.

Additional ratings may be available for specific customer requirements. For higher temperatures and elevations follow derate specification. Contact your Cat representative for details.

DEFINITIONS AND CONDITIONS

1 For ambient and altitude capabilities consult your Cat dealer.

Air flow restriction (system) is added to the existing restriction from the factory.

2 Generator temperature rise is based on a 40°C (104°F) ambient per NEMA MG1-32.

Operating Fuel Pressure is the fuel pressure required to be delivered at the genset base frame rail connection. Recommended gas regulator to be used in conjunction if the gas supply pressure is above this range.

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

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