# Cat® DG125 Gas Generator Sets North America





Image shown	may not	reflect actual	configuration.

Engine Model	6.2L V8 TCAC
No. of Cylinders	8
Bore x Stroke	101.6 mm x 95.3 mm
Displacement	6.2 Liter
Compression Ratio	9.8:1
Aspiration	Turbocharged & Aftercooled
Fuel System	Electronic Regulator / Spark Ignition
Governor	G2 Class* capable — Electronic

## For North America, 60 Hz Market

	Emergency Standby		Demand F	Response	Pri	me		
Model	Natural Gas ekW	Propane ekW	Natural Gas	Propane ekW	Natural Gas	Propane ekW	Emissions Strategy	
DG125	125	117.9	104.8	98.4	87.6	87.6	U.S. EPA Certified for Emergency and Non-Emergency	

## **PACKAGE PERFORMANCE**

	Emergency Standby		Demand Response		Prime	
Performance	Natural Gas	Propane	Natural Gas	Propane	Natural Gas	Propane
Frequency, Hz			6	0	1	
Genset power rating with fan, ekW (3-Phase)	125	117.9	104.8	98.4	87.6	87.6
Genset power rating with fan, ekW (1-Phase)	NA	NA	100	86	86	86
Performance Numbers (3-Phase / 1-Phase)	EM6754 / NA	EM6755 / NA	EM6936 / EM6938	EM6937 / EM6939	EM6940 / EM6942	EM6941 / EM6943
Fuel System / Fuel Consumption						
Minimum Running pressure to Electronic Pressure Regulator (EPR), psi (in. water)	0.25 (7)	0.25 (7)	0.25 (7)	0.25 (7)	0.25 (7)	0.25 (7)
Maximum Running pressure to Electronic Pressure Regulator (EPR), psi (in. water)	0.40 (11)	0.40 (11)	0.40 (11)	0.40 (11)	0.40 (11)	0.40 (11)
100% load with fan,kg/hr (ft³/hr)	34 (1543)	29.2 (546)	27.2 (1223)	26.8 (502)	23.5 (1058)	24.4 (462.5)
75% load with fan,kg/hr (ft³/hr)	25.1 (1134)	21.7 (406)	21.3 (961.7)	21.1 (399)	19.1 (859)	19.3 (365)
50% load with fan,kg/hr (ft³/hr)	17.7 (800)	15.3 (287)	15.5 (700)	15.4 (291)	13.7 (618.3)	14.2 (265.5)
Cooling System <sup>1</sup>						
Radiator air flow, m³/min (cfm)	322 (11371)	322 (11371)	322 (11371)	322 (11371)	322 (11371)	322 (11371)
Radiator air flow restriction (system), kPa (in. water)	0.12	0.12	0.12	0.12	0.12	0.12
Engine coolant capacity, L (gal)	14.5 (3.8)	14.5 (3.8)	14.5 (3.8)	14.5 (3.8)	14.5 (3.8)	14.5 (3.8)
Radiator coolant capacity, L (gal)	7.6 (2.0)	7.6 (2.0)	7.6 (2.0)	7.6 (2.0)	7.6 (2.0)	7.6 (2.0)
Total coolant capacity, L (gal)	22.1 (5.8)	22.1 (5.8)	22.1 (5.8)	22.1 (5.8)	22.1 (5.8)	22.1 (5.8)
Inlet Air						
Combustion air inlet flow rate, m³/min (cfm) (kg/hr)	7.8 (277) (564)	6.3 (224) (457.5)	6.2 (222) (452.7)	5.7 (204.6) (418)	5.3 (190.7) (389.6)	5 (186) (380.4)
Maximum allowable intake air restriction, kPa (in. water)	3.48 (13.98)	3.48 (13.98)	3.48 (13.98)	3.48 (13.98)	3.48 (13.98)	3.48 (13.98)
Exhaust System						
Exhaust gas temperature after turbo, °C (°F)	728 (1342)	725 (1337)	687 (1268)	722 (1331)	665 (1229)	694 (1281)
Exhaust gas flow rate, m³/min (cfm) (kg/hr)	31.7 (1095) (598)	25.3 (894) (487)	24.4 (862) (480)	23 (812) (444)	20.4 (720) (413)	20.3 (716) (405)
Maximum allowable exhaust system back pressure, kPa (in. water)	15 (60.28)	15 (60.28)	15 (60.28)	15 (60.28)	15 (60.28)	15 (60.28)

<sup>\*</sup>Preliminary Data - Subject to change without notice.

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## **DG125 Gas Generator Sets Electric Power North America**



## PACKAGE PERFORMANCE (contd.)

Heat Rejection	Emergeno	Emergency Standby		Demand Response		Prime	
(3-Phase)	Natural Gas	Propane	Natural Gas	Propane	Natural Gas	Propane	
Heat rejection to jacket water, kW (Btu/min)	91 (5175)	76 (4322)	69 (3924)	66 (3753)	60 (3412)	60 (3412)	
Heat rejection to after cooler, kW (Btu/min)	16 (910)	13 (739)	13 (739)	11 (625)	8 (455)	8 (455)	
Heat rejection to oil cooler, kW (Btu/min)	15 (853)	11 (625)	10 (568)	9 (511)	9 (511)	9 (511)	
Heat rejection to atmosphere from engine, kW (Btu/min)	68 (3867)	46 (2616)	44 (2502)	42 (2388)	38 (2161)	38 (2161)	
Heat rejection to exhaust, kW (Btu/min)	144 (8189)	112 (6369)	101 (5743)	98 (5573)	92 (5232)	91 (5175)	
Lube System							
Sump refill with filter, L (gal)	5.4 (1.43)	5.4 (1.43)	5.4 (1.43)	5.4 (1.43)	5.4 (1.43)	5.4 (1.43)	
Maximum oil temperature, °C (°F)	121 (250)	121 (250)	121 (250)	121 (250)	121 (250)	121 (250)	
Maximum oil capacity, L (gal)	7.6 (2)	7.6 (2)	7.6 (2)	7.6 (2)	7.6 (2)	7.6 (2)	
Minimum oil capacity, L (gal)	4.7 (1.24)	4.7 (1.24)	4.7 (1.24)	4.7 (1.24)	4.7 (1.24)	4.7 (1.24)	
Emissions (Nominal)							
NOx + HC, g/kW-hr (g/hp-hr)	0.48 (0.35)	0.68 (0.50)	0.32 (0.23)	0.65 (0.47)	0.24 (0.17)	0.48 (0.35)	
CO, g/kW-hr (g/hp-hr)	0.94 (0.69)	3.90 (2.86)	0.35 (0.25)	2.89 (2.12)	0.27 (0.19)	1.76 (1.29)	

### **ALTERNATOR DATA**

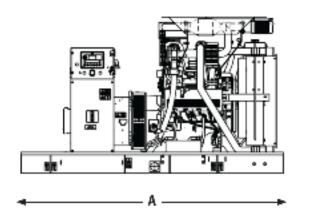
DG125							
Alternator		60 Hz 3-Phase					
Voltages	480/277	240/120	240/139	208/120	600/346	240/120	
Temperature rise <sup>2</sup> , °C	105	105	105	105	105	105	
Motor starting capability @ 30% Voltage Dip, skVA	336	326	326	326	349	229	
Frame size	M2254L4	M2254L4	M2254L4	M2254L4	M2254L4	M2238L4	
Excitation	PMG	PMG	PMG	PMG	PMG	SE	
Rated Current, Amps – Natural Gas / Propane							
Emergency Standby	188 / 177	376 / 352	376 / 352	434 / 409	150 / 141	NA	
Demand Response	158 / 148	315 / 296	315 / 296	364 / 342	126 / 117	417 / 358	
Prime	131 / 131	263 / 263	263 / 263	301 / 301	105 / 105	358 / 358	

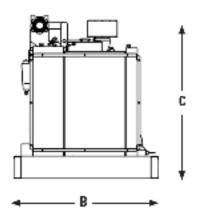
Motor starting capability is based on the assumption of 0.6 pf.
Temperature rise and Current in amps are based on the Standby rating at the respective voltages.

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#### **WEIGHTS & DIMENSIONS**





Length "A" mm (in)	Width "B"	Height "C"	Dry Weight
	mm (in)	mm (in)	Kg (lb)
2442 (96)	1297 (51)	1449 (57)	1464 (3226)

Note: General configuration not to be used for installation. See general dimension drawings for detail. \*Preliminary Data – Subject to change without notice.

#### 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.

EMERGENCY STANDBY POWER (ESP): 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 ekW. Typical operation is 50 hours per year, with maximum expected usage of 200 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 ekW. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

PRIME POWER: Output available with varying load for an unlimited time. Average power output is 70% of the prime rated ekW. Typical peak demand is 100% of prime rated ekW.

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 heat values of 962 BTU/SCF for Natural Gas and 2472 BTU/SFC for Propane Vapor @77°F (25°C) and 2152 ft (656 m) above sea level.

#### **DEFINITIONS AND CONDITIONS**

- <sup>1</sup> For ambient and altitude capabilities, consult your Cat dealer. Air flow restriction (system) is added to the existing restriction from the factory.
- <sup>2</sup> Generator temperature rise is based on 40°C (104°F) ambient per NEMA MG1-32.
- \*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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# Cat® DG125 Gas Generator Sets Latin America





Image shown	may	not	reflect	actual	configuration.

Engine Model	6.2L V8 TCAC
No. of Cylinders	8
Bore x Stroke	101.6 mm x 95.3 mm
Displacement	6.2 Liter
Compression Ratio	9.8:1
Aspiration	Turbocharged & Aftercooled
Fuel System	Electronic Regulator / Spark Ignition
Governor	G2 Class* capable — Electronic

## For Latin America, 60 Hz Market

	Emergency Standby Prime				
Model	Natural Gas ekW	Propane ekW	Natural Gas ekW	Propane ekW	Emissions Strategy
DG125	125	117.9	87.6	87.6	U.S. EPA Certified for Emergency and Non-Emergency

## **PACKAGE PERFORMANCE**

	Emergenc	y Standby	Pri	me
Performance	Natural Gas	Propane	Natural Gas	Propane
Frequency, Hz		6	60	
Genset power rating with fan, ekW (3-Phase)	125	117.9	87.6	87.6
Genset power rating with fan, ekW (1-Phase)	NA	NA	86	86
Performance Numbers (3-Phase / 1-Phase)	EM6754 / NA	EM6755 / NA	EM6940 / EM6942	EM6941 / EM6943
Fuel System / Fuel Consumption				
Minimum Running pressure to Electronic Pressure Regulator (EPR), psi (in. water)	0.25 (7)	0.25 (7)	0.25 (7)	0.25 (7)
Maximum Running pressure to Electronic Pressure Regulator (EPR), psi (in. water)	0.40 (11)	0.40 (11)	0.40 (11)	0.40 (11)
100% load with fan,kg/hr (ft³/hr)	34 (1543)	29.2 (546)	23.5 (1058)	24.4 (462.5)
75% load with fan,kg/hr (ft³/hr)	25.1 (1134)	21.7 (406)	19.1 (859)	19.3 (365)
50% load with fan,kg/hr (ft³/hr)	17.7 (800)	15.3 (287)	13.7 (618.3)	14.2 (265.5)
Cooling System <sup>1</sup>				
Radiator air flow, m³/min (cfm)	322 (11371)	322 (11371)	322 (11371)	322 (11371)
Radiator air flow restriction (system), kPa (in. water)	0.12	0.12	0.12	0.12
Engine coolant capacity, L (gal)	14.5 (3.8)	14.5 (3.8)	14.5 (3.8)	14.5 (3.8)
Radiator coolant capacity, L (gal)	7.6 (2.0)	7.6 (2.0)	7.6 (2.0)	7.6 (2.0)
Total coolant capacity, L (gal)	22.1 (5.8)	22.1 (5.8)	22.1 (5.8)	22.1 (5.8)
Inlet Air				
Combustion air inlet flow rate, m³/min (cfm) (kg/hr)	7.8 (277) (564)	6.3 (224) (457.5)	5.3 (190.7) (389.6)	5 (186) (380.4)
Maximum allowable intake air restriction, kPa (in. water)	3.48 (13.98)	3.48 (13.98)	3.48 (13.98)	3.48 (13.98)
Exhaust System				
Exhaust gas temperature after turbo, °C (°F)	728 (1342)	725 (1337)	665 (1229)	694 (1281)
Exhaust gas flow rate, m³/min (cfm) (kg/hr)	31.7 (1095) (598)	25.3 (894) (487)	20.4 (720) (413)	20.3 (716) (405)
Maximum allowable exhaust system back pressure, kPa (in. water)	15 (60.28)	15 (60.28)	15 (60.28)	15 (60.28)

<sup>\*</sup>Preliminary Data - Subject to change without notice.

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## **DG125 Gas Generator Sets Electric Power Latin America**



## PACKAGE PERFORMANCE (contd.)

Heat Rejection	Emergeno	y Standby	Prin Natural Gas 60 (3412) 8 (455) 9 (511) 38 (2161) 92 (5232)  5.4 (1.43) 121 (250) 7.6 (2) 4.7 (1.24)	me
(3-Phase)	Natural Gas	Propane	Natural Gas	Propane
Heat rejection to jacket water, kW (Btu/min)	91 (5175)	76 (4322)	60 (3412)	60 (3412)
Heat rejection to after cooler, kW (Btu/min)	16 (910)	13 (739)	8 (455)	8 (455)
Heat rejection to oil cooler, kW (Btu/min)	15 (853)	11 (625)	9 (511)	9 (511)
Heat rejection to atmosphere from engine, kW (Btu/min)	68 (3867)	46 (2616)	38 (2161)	38 (2161)
Heat rejection to exhaust, kW (Btu/min)	144 (8189)	112 (6369)	92 (5232)	91 (5175)
Lube System				
Sump refill with filter, L (gal)	5.4 (1.43)	5.4 (1.43)	5.4 (1.43)	5.4 (1.43)
Maximum oil temperature, °C (°F)	121 (250)	121 (250)	121 (250)	121 (250)
Maximum oil capacity, L (gal)	7.6 (2)	7.6 (2)	7.6 (2)	7.6 (2)
Minimum oil capacity, L (gal)	4.7 (1.24)	4.7 (1.24)	4.7 (1.24)	4.7 (1.24)
Emissions (Nominal)				
NOx + HC, g/kW-hr (g/hp-hr)	0.48 (0.35)	0.68 (0.50)	0.24 (0.17)	0.48 (0.35)
CO, g/kW-hr (g/hp-hr)	0.94 (0.69)	3.90 (2.86)	0.27 (0.19)	1.76 (1.29)

### **ALTERNATOR DATA**

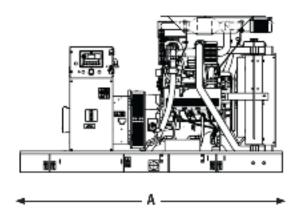
DG125								
Alternator	60 Hz 3-Phase 60 Hz 1-Phase							
Voltages	480/277	380/220	240/120	240/139	220/127	208/120	600/346	240/120
Temperature rise <sup>2</sup> , °C	105	105	105	105	105	105	105	105
Motor starting capability @ 30% Voltage Dip, skVA	336	278	326	326	359	326	349	229
Frame size	M2254L4	M2275L4	M2254L4	M2254L4	M2275L4	M2254L4	M2254L4	M2238L4
Excitation	PMG	PMG	PMG	PMG	PMG	PMG	PMG	SE
Rated Current, Amps – Natural Gas / Propane								
Emergency Standby	188 / 177	238 / 221	376 / 352	376 / 352	410 / 383	434 / 409	150 / 141	NA
Prime	131 / 131	166 / 166	263 / 263	263 / 263	282 / 282	301 / 301	105 / 105	358 / 358

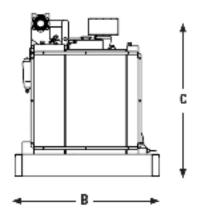
Motor starting capability is based on the assumption of 0.6 pf.
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#### **WEIGHTS & DIMENSIONS**





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	mm (in)	mm (in)	Kg (lb)		
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Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO 3046 standard conditions.

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- \*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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