# Cat® DG150
## GAS GENERATOR SETS
## NORTH AMERICA


Image shown may not reflect actual configuration.

| | |
|---|---|
| Engine Model | 9.1L V8 TCAC |
| No. of Cylinders | 8 |
| Bore x Stroke | 109.5 mm x 120.7 mm |
| Displacement | 9.1 Liter |
| Compression Ratio | 9.5:1 |
| Aspiration | Turbocharged & Aftercooled |
| Fuel / Ignition System | Electronic Regulator / Spark Ignition |
| Governor | Electronic - G1 Class* capable |

## For North America, 60 Hz Market

| Model | Emergency Standby | | Demand Response | | Prime | | Emissions Strategy |
|---|---|---|---|---|---|---|---|
| | Natural Gas ekW | Propane ekW | Natural Gas ekW | Propane ekW | Natural Gas ekW | Propane ekW | |
| DG150 | 150 | 132.6 | 150 | 132.6 | 121.6 | 121.6 | U.S. EPA Certified for Emergency and Non-Emergency |

## PACKAGE PERFORMANCE

| Performance | Emergency Standby | | Demand Response | | Prime | |
|---|---|---|---|---|---|---|
| | Natural Gas | Propane | Natural Gas | Propane | Natural Gas | Propane |
| Frequency, Hz | 60 | | | | | |
| Genset power rating with fan, ekW (3-Phase) | 150 | 132.6 | 150 | 132.6 | 121.6 | 121.6 |
| Performance Number | EM6953 | EM6954 | EM6955 | EM6956 | EM6957 | EM6958 |
| **Fuel System / Fuel Consumption** | | | | | | |
| Minimum required fuel delivery pressure at rail connector, psi (in. water) | 0.36 (10) | | | | | |
| Maximum required fuel delivery pressure at rail connector, psi (in. water) | 0.43 (12) | | | | | |
| 100% load with fan,kg/hr (CFH) | 39.1 (1769) | 32.9 (622) | 39.1 (1769) | 32.9 (622) | 30.3 (1369.5) | 30.2 (571.3) |
| 75% load with fan,kg/hr (CFH) | 31.32 (1337) | 25.3 (477.8) | 31.32 (1337) | 25.3 (477.8) | 24 (1084.2) | 24 (454.2) |
| 50% load with fan,kg/hr (CFH) | 20.7 (887) | 18.2 (345) | 20.7 (887) | 18.2 (345) | 17.7 (799) | 17.8 (336.6) |
| **Cooling System[1]** | | | | | | |
| Radiator air flow, $m^3$/min (CFM) | 463 (16350) | | | | | |
| Radiator air flow restriction (system), kPa (in. water) | 0.12 | | | | | |
| Engine coolant capacity, L (gal) | 18.9 (5) | | | | | |
| Radiator coolant capacity, L (gal) | 11.4 (3) | | | | | |
| Total coolant capacity, L (gal) | 30.3 (8) | | | | | |
| **Inlet Air** | | | | | | |
| Combustion air inlet flow rate, $m^3$/min (CFM) (kg/hr) | 9.7 (341) (643) | 7.8 (273.5) (515.6) | 9.7 (341) (643) | 7.8 (273.5) (515.6) | 7.3 (257.7) (486) | 7.0 (246) (463.7) |
| Maximum allowable intake air restriction, kPa (in. water) | 3.48 (13.98) | | | | | |
| **Exhaust System** | | | | | | |
| Exhaust gas temperature after turbo,°C (°F) | 706 (1302) | 696 (1284) | 706 (1302) | 696 (1284) | 659 (1218) | 682 (1259) |
| Exhaust gas flow rate, $m^3$/min (CFM) (kg/hr) | 35.5 (1253) (682) | 27.2 (960) (548.5) | 35.5 (1253) (682) | 27.2 (960) (548.5) | 25.5 (900.5) (516) | 24.8 (875.8) (494) |
| Exhaust system back pressure max allowable, kPa (in. water) | 20 (80.4) | | | | | |

## PACKAGE PERFORMANCE (contd.)

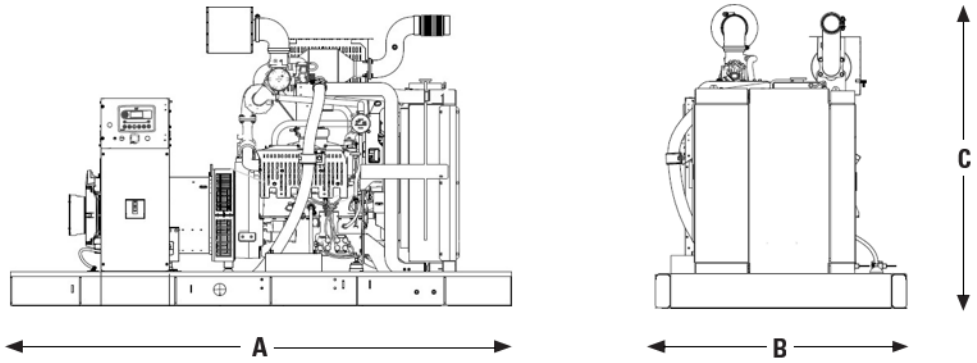
| Heat Rejection | Emergency Standby | | Demand Response | | Prime | |
|---|---|---|---|---|---|---|
| | Natural Gas | Propane | Natural Gas | Propane | Natural Gas | Propane |
| Heat rejection to jacket water, kW (BTU/min) | 86.1 (4896) | 66.3 (3770) | 86.1 (4896) | 66.3 (3770) | 64 (3639) | 61.7 (3508) |
| Heat rejection to after cooler, kW (BTU/min) | 24.3 (1382) | 13 (739) | 24.3 (1382) | 13 (739) | 11.6 (659) | 10.5 (597) |
| Heat rejection to oil cooler, kW (BTU/min) | 20.8 (1183) | 21.1 (1200) | 20.8 (1183) | 21.1 (1200) | 16.4 (932) | 19.7 (1120) |
| Heat rejection to atmosphere from engine, kW (BTU/min) | 56.6 (3219) | 60.4 (3435) | 56.6 (3219) | 60.4 (3435) | 68.3 (3884) | 58.5 (3326) |
| Heat rejection to exhaust, kW (BTU/min) | 144.7 (8229) | 112 (6369) | 144.7 (8229) | 112 (6369) | 101.8 (5789) | 98.8 (5618) |
| **Lube System** | | | | | | |
| Sump refill with filter, L (gal) | 12.1 (3.2) | | | | | |
| Maximum oil sump temperature, °C (°F) | 107 (225) | | | | | |
| Maximum oil capacity, L (gal) | 11.4 (3) | | | | | |
| Minimum oil capacity, L (gal) | 7.6 (2) | | | | | |
| **Emissions (Conforme aux limites non urgentes de l'EPA)** | | | | | | |
| NOx + HC, (g/kW-hr) | 0.8 | | | | | |
| CO, (g/kW-hr) | 20.6 | | | | | |

## ALTERNATOR DATA

| DG150 | | | | | |
|---|---|---|---|---|---|
| Alternator | 60 Hz 3-Phase | | | | |
| Voltages | 480/277 | 240/120 | 240/139 | 208/120 | 600/346 |
| Temperature rise[2], °C | 105 | 105 | 105 | 105 | 105 |
| Motor starting capability @ 30% Voltage Dip, skVA | 513 | 403 | 513 | 403 | 461 |
| Frame size | M2294L4 | M2294L4 | M2294L4 | M2294L4 | M2294L4 |
| Excitation | PMG | PMG | PMG | PMG | PMG |
| Rated Current, Amps - Natural Gas / Propane | | | | | |
| Emergency Standby | 225 / 200 | 451 /399 | 451 / 399 | 520 / 460 | 180 / 160 |
| Demand Response | 225 / 200 | 451 / 399 | 451 / 399 | 520 / 460 | 180 / 160 |
| Prime | 183 / 183 | 366 / 366 | 366 / 366 | 366 / 366 | 146 / 146 |

Motor starting capability is based on the assumption of 0.6 pf.
Temperature rise is based on the rating type and the respective site conditions.

## WEIGHTS & DIMENSIONS




| Length "A" mm (in) | Width "B" mm (in) | Height "C" mm (in) | Dry Weight Kg (lb) |
|---|---|---|---|
| 2892 (114) | 1396 (55) | 1734 (68.3) | 1657 (3653) |

**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, 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

**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 LHV of 35.83 MJ/Nm$^3$ for Natural Gas and 92.1 MJ/Nm$^3$ for Propane Vapor @77°F (25°C) and 328 ft (100 m) above sea level and a relative humidity of 30%.Temperatures and elevations greater than this standard must be accounted for as follows:

A derate of 1.5% for every 5°C above 25°C air inlet temperature.
A derate of 2.2% for every 200m above 100m.

### 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 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.

LET'S DO THE WORK.™

# Cat® DG150
## GAS GENERATOR SETS
## LATIN AMERICA


Image shown may not reflect actual configuration.

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|---|---|
| Engine Model | 9.1L V8 TCAC |
| No. of Cylinders | 8 |
| Bore x Stroke | 109.5 mm x 120.7 mm |
| Displacement | 9.1 Liter |
| Compression Ratio | 9.5:1 |
| Aspiration | Turbocharged & Aftercooled |
| Fuel / Ignition System | Electronic Regulator / Spark Ignition |
| Governor | G1 Class* capable - Electronic |

## For Latin America, 60 Hz Market

| Model | Emergency Standby | | Prime | | Emissions Strategy |
|---|---|---|---|---|---|
| | Natural Gas ekW | Propane ekW | Natural Gas ekW | Propane ekW | |
| DG150 | 150 | 132.6 | 121.6 | 121.6 | U.S. EPA Certified for Emergency and Non-Emergency |

## PACKAGE PERFORMANCE

| Performance | Emergency Standby | | Prime | |
|---|---|---|---|---|
| | Natural Gas | Propane | Natural Gas | Propane |
| Frequency, Hz | 60 | | | |
| Genset power rating with fan, ekW (3-Phase) | 150 | 132.6 | 121.6 | 121.6 |
| Performance Number | EM6953 | EM6954 | EM6957 | EM6958 |
| **Fuel System / Fuel Consumption** | | | | |
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| **Lube System** | | | | |
| Sump refill with filter, L (gal) | 12.1 (3.2) | | | |
| Maximum oil sump temperature, °C (°F) | 107 (225) | | | |
| Maximum oil capacity, L (gal) | 11.4 (3) | | | |
| Minimum oil capacity, L (gal) | 7.6 (2) | | | |
| **Emissions (Meets EPA Non-Emergency Stationary Limits)** | | | | |
| NOx + HC, g/kW-hr | 0.8 | | | |
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## ALTERNATOR DATA

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| Frame size | M2294L4 | M2294L4 | M2294L4 | M2294L4 | M2294L4 | M2294L4 | M2294L4 |
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| Rated Current, Amps - Natural Gas / Propane | | | | | | | |
| Emergency Standby | 225 / 200 | 285 / 249 | 492/ 435 | 451 /399 | 451 / 399 | 520 / 460 | 180 / 160 |
| Prime | 183 / 183 | 231/ 231 | 399 / 399 | 366 / 366 | 366 / 366 | 366 / 366 | 146 / 146 |

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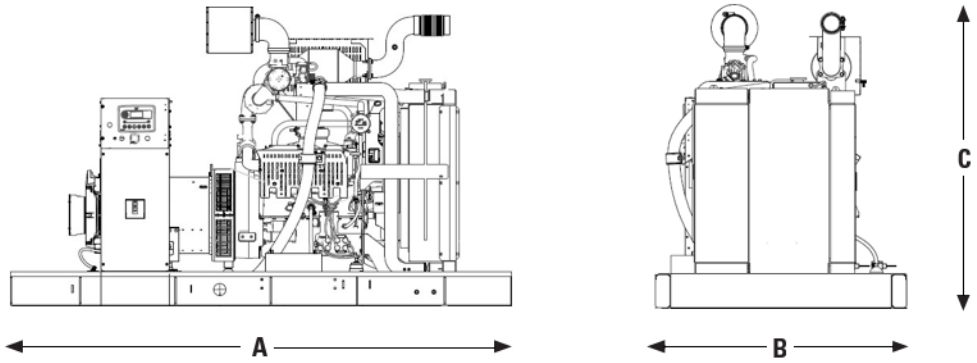
## WEIGHTS & DIMENSIONS

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