# Cat® DG175 GC
## SPARK-IGNITED GENERATOR SETS

Image shown may not reflect actual configuration.

## Standby/Demand Response
## 175 ekW
### 219 kVA – 60 Hz

**UL2200:** Evaluated by ETL to UL Standard for Safety UL2200
**CSA:** Designed in accordance to CSA22.2 standards
**NFPA:** Facilitates compliance with NFPA110
**Type 10:** Product was tested to NFPA110 Type 10

## SPECIFICATIONS

| **Engine** | |
|---|---|
| Engine Model | 14.2 L, In-line 6, 4-cycle |
| Bore x Stroke | 135 mm x 165 mm (5.31 in x 6.50 in) |
| Displacement | 14.17 L (864.71 $in^3$) |
| Compression Ratio | 9.5:1 |
| Aspiration | Turbocharged-Aftercooled |
| Fuel System | Carburetor, Down Draft |
| Governor | Electronic |
| Fuel Type | Natural Gas |
| Emission Certifications | U.S. EPA Certified for Non-Emergency |
| Rated Engine Speed | 1800 rpm |
| **General** | |
| Cylinder No. | 6 |
| **Engine Governing** | |
| Frequency Regulation (Steady State) | +/- 0.25% |
| **Lubrication System** | |
| Oil Pump Type | Gear |
| Oil Filter Type | Full-flow Cartridge |
| Crankcase Capacity – L (qts) | 34.3 (36.2) |

| **Cooling System** | |
|---|---|
| Cooling System Type | Pressurized Closed Recovery |
| Water Pump Flow – gpm (lpm) | 94 (356) |
| Coolant Heater Standard Voltage/Wattage | 120 V/1500 W |
| **Fuel System** | |
| Fuel Type | Natural Gas |
| Carburetor | Down Draft |
| Secondary Fuel Regulator | Standard |
| Fuel Shut Off Solenoid | Standard (Dual) |
| Operating Fuel Pressure (Standard) | 7" – 11" $H_2O$ |
| **Engine Electrical System** | |
| System Voltage | 24 VDC |
| Battery Charger Alternator | Standard |
| Battery Voltage | (2) 12 VDC |

## ENGINEERED OPTIONS

| | |
|---|---|
| **Engine System** | Coolant Heater Ball Valves |
| | Fluid Containment Pans |
| **Alternator System** | 3rd Breaker Systems |
| **Generator Set** | Special Testing |
| | Battery Box |

| | |
|---|---|
| **Enclosure** | Motorized Dampers |
| | Enclosure Ambient Heaters |
| **Control System** | EMCP 4.2B |
| | Battery Disconnect Switch |

## POWER RATINGS – NATURAL GAS

| | Natural Gas | |
|---|---|---|
| Single-Phase 120/240 VAC @1.0pf | 175 kW | Amps: 729 |
| Three-Phase 120/208 VAC @0.8pf | 175 kW | Amps: 607 |
| Three-Phase 120/240 VAC @0.8pf | 175 kW | Amps: 526 |
| Three-Phase 277/480 VAC @0.8pf | 175 kW | Amps: 263 |
| Three-Phase 346/600 VAC @0.8pf | 175 kW | Amps: 210 |

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## STARTING CAPABILITIES (sKVA)

| | | sKVA vs. Voltage Dip | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 480 VAC | | | | | | 208/240 VAC | | | | | |
| Alternator | kW | 10% | 15% | 20% | 25% | 30% | 35% | 10% | 15% | 20% | 25% | 30% | 35% |
| Standard | 175 | 187 | 280 | 373 | 467 | 560 | 653 | 140 | 210 | 280 | 350 | 420 | 490 |
| Upsize | 200 | 187 | 280 | 373 | 467 | 560 | 653 | 140 | 210 | 280 | 350 | 420 | 490 |
| Upsize | 250 | 263 | 395 | 527 | 658 | 790 | 922 | 197 | 296 | 395 | 494 | 593 | 692 |

## FUEL CONSUMPTION RATES*

| Natural Gas – $ft^3/hr$ ($m^3/hr$) | |
|---|---|
| Percent Load | Standby/Demand Response |
| 25% | 819 (23.2) |
| 50% | 1404 (39.8) |
| 75% | 1895 (53.7) |
| 100% | 2340 (66.3) |

*Fuel supply installation must accommodate fuel consumption rates at 100% load.

## COOLING

| | | Standby/Demand Response |
|---|---|---|
| Air Flow (inlet air combustion and radiator) | $ft^3/min$ ($m^3/min$) | 9389 (265.9) |
| Coolant System Capacity | gal (Liters) | 6.1 (23.1) |
| Heat Rejection to Coolant | BTU/hr | 597,740 |
| Max. Operating Air Temp on Radiator | °F (°C) | 122 (50) |
| Max. Operating Ambient Temperature (Before derate) | °F (°C) | 110 (43.3) |
| Maximum Radiator Backpressure | in $H_2O$ | 0.5 |

## COMBUSTION AIR REQUIREMENTS

| | | Standby/Demand Response |
|---|---|---|
| Flow at Rated Power | cfm ($m^3/min$) | 389 (11.0) |

## ENGINE

| | | Standby/Demand Response |
|---|---|---|
| Reated Engine Speed | rpm | 1800 |
| Horsepower at Rated kW** | hp | 267 |
| BMEP | PSI | 157 |

**Refer to "Emissions Data Sheet" for maximum bhp for EPA and SCAQMD permitting purposes.

## EXHAUST

| | | Standby/Demand Response |
|---|---|---|
| Exhaust Flow (Rated Output) | cfm ($m^3/min$) | 1349 (38.2) |
| Maximum Recommended Backpressure | inHg | 0.75 |
| Exhaust Temp (Rated Output) | °F (°C) | 1378 (748) |
| Exhaust Outlet Size (Open Set) | in | 3.5" ID Flex (no muffler) |

Deration – For power deration rates reference, please consult Cat LEHE1699-00.

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