Cat® G3512
Gas Generator Sets

Image shown may not reflect actual configuration

Standby and Continuous
60 Hz ekW (kVA) | Emissions Performance
--- | ---
1000 (1250) | NOx Selectable (0.5 to 2.0 g/bhp-hr)
750 (938) | NOx Selectable (0.5 to 2.0 g/bhp-hr)

### Standard Features

**Cat® Natural Gas Engine**
- Robust high speed block design provides prolonged life and lower owning and operating costs
- Designed for maximum performance on low pressure gaseous fuel supply
- Simple open chamber combustion system for reliability and fuel flexibility
- Twelve cylinder design to optimize transient performance

**Generator Set Package**
- Accepts 100% block load in one step
- Designed to meet NFPA 110, Type 10 starting and loading requirements
- Conforms to ISO 8528-5 G3 load acceptance and steady state criteria
- Reliability verified through torsional vibration, fuel consumption, oil consumption, transient performance, and endurance testing

**Generators**
- Superior motor starting capability minimizes need for oversizing generator
- Designed to match performance and output characteristics of Cat engines

**Cooling System**
- Cooling systems available to operate in ambient temperatures up to 43°C (110°F)
- Package tested to ensure proper cooling of complete generator set

### EMCP 4 Control Panels
- User-friendly interface and navigation
- Scalable system to meet a wide range of installation requirements
- Expansion modules and site specific programming for specific customer requirements

### Warranty
- 24 months/1000-hour warranty for standby ratings
- 12 months/unlimited hour warranty for continuous ratings
- Extended service coverage is available to provide extended coverage options

### Worldwide Product Support
- Cat dealers have over 1,800 dealer branch stores operating in 200 countries
- Your local Cat dealer provides extensive post-sale support, including maintenance and repair agreements

### Financing
- Caterpillar offers an array of financial products to help you succeed through financial service excellence
- Options include loans, finance lease, operating lease, working capital, and revolving line of credit
- Contact your local Cat dealer for availability in your region
## Optional Equipment

### Engine

**Air Cleaner (Single Element)**
- Installed
- Supplied loose

**Muffler**
- Industrial grade (15 dB)
- Residential grade (18 dB)
- Critical grade (25 dB)
- Spark arresting

**Starting**
- Standard batteries
- Standard electric starter(s)
- Air starter(s)
- Jacket water heater

### Generators

**Output voltage**
- 208V
- 2400V
- 220V
- 4160V
- 240V
- 12470V
- 380V
- 13200V
- 440V
- 13800V
- 480V
- 600V

**Temperature Rise (over 40°C ambient)**
- 150°C
- 125°C/130°C
- 105°C
- 80°C

**Winding type**
- Random wound
- Form wound

**Excitation**
- Permanent magnet (PM)

**Attachments**
- Anti-condensation heater
- Stator and bearing temperature monitoring and protection

### Power Termination

**Type**
- Bus bar
- Circuit breaker
- 400A
- 800A
- 1200A
- 1600A
- 2000A
- 2500A
- 3200A
- 4000A
- UL
- IEC
- 3-pole
- 4-pole
- Manually operated
- Electrically operated

**Trip Unit**
- LSI
- LSI-G
- LSIG-P

**Enclosure**
- Weather protective
- Sound attenuated

**Attachments**
- Cold weather bundle
- DC lighting package
- AC lighting package
- Motorized louvers

### Fuel System Pressure

- Standard
- Low

### Control System

**Controller**
- EMCP 4.3
- EMCP 4.4

**Attachments**
- Local annunciator module
- Remote annunciator module
- Load share module
- Remote monitoring software

### Charging

- Battery charger – 20A
- Battery charger – 35A
- Battery charger – 50A

### Vibration Isolators

- Rubber
- Spring
- Seismic rated

### Cat Connect

**Connectivity**
- Ethernet

### Extended Service Options

**Terms**
- 2 year
- 3 year
- 5 year
- 10 year

**Coverage**
- Silver
- Gold
- Platinum
- Platinum Plus

### Ancillary Equipment

- Automatic transfer switch (ATS)
- Uninterruptible power supply (UPS)
- Paralleling switchgear
- Paralleling controls

### Certifications

- UL 2200 Listed
- CSA Certified

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**Note:** Some options may not be available on all models. Certifications may not be available with all model configurations. Consult factory for availability.
## Package Performance

<table>
<thead>
<tr>
<th>Performance</th>
<th>Standby &amp; Continuous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>60 Hz</td>
</tr>
<tr>
<td>Genset power rating @ 0.8 power factor – ekW (kVA)</td>
<td>750 (938) 1000 (1250)</td>
</tr>
<tr>
<td>Emissions</td>
<td>2 g/bhp-hr NOx</td>
</tr>
<tr>
<td>Performance number</td>
<td>EM2091-01 EM1622-02</td>
</tr>
<tr>
<td><strong>Fuel Consumption</strong></td>
<td></td>
</tr>
<tr>
<td>100% load with fan – MJ/ekW-hr (Btu/ekW-hr)</td>
<td>10.57 (10025) 10.05 (9526)</td>
</tr>
<tr>
<td>75% load with fan – MJ/ekW-hr (Btu/ekW-hr)</td>
<td>11.39 (10799) 10.52 (9971)</td>
</tr>
<tr>
<td>50% load with fan – MJ/ekW-hr (Btu/ekW-hr)</td>
<td>12.96 (12287) 11.57 (10970)</td>
</tr>
<tr>
<td><strong>Cooling System</strong></td>
<td></td>
</tr>
<tr>
<td>Radiator air flow restriction – kPa (in. water)</td>
<td>0.12 (0.5) 0.12 (0.5)</td>
</tr>
<tr>
<td>Radiator air flow – m³/min (cfm)</td>
<td>1830 (64625) 1830 (64625)</td>
</tr>
<tr>
<td>Radiator ambient capability @ 304 m (1000 ft) – °C (°F)</td>
<td>45 (113) 45 (113)</td>
</tr>
<tr>
<td>Auxiliary circuit temperature (maximum inlet) – °C (°F)</td>
<td>54 (130) 54 (130)</td>
</tr>
<tr>
<td>Jacket water temperature (maximum outlet) – °C (°F)</td>
<td>99 (210) 99 (210)</td>
</tr>
<tr>
<td><strong>Inlet Air</strong></td>
<td></td>
</tr>
<tr>
<td>Combustion air inlet flow rate – Nm³/bkW-hr (ft³/min)</td>
<td>4.38 (2339) 4.18 (2941)</td>
</tr>
<tr>
<td><strong>Altitude Capability</strong></td>
<td></td>
</tr>
<tr>
<td>At 25°C (77°F) ambient, above sea level – m (ft)</td>
<td>2910 (9547) 2025 (6644)</td>
</tr>
<tr>
<td><strong>Exhaust System</strong></td>
<td></td>
</tr>
<tr>
<td>Exhaust temperature – engine outlet – °C (°F)</td>
<td>513 (956) 508 (947)</td>
</tr>
<tr>
<td>Exhaust Gas Flow – Nm³/bkW-hr (ft³/min)</td>
<td>4.67 (6657) 4.45 (8320)</td>
</tr>
<tr>
<td>Exhaust Gas Mass Flow – kg/bkW-hr (lb/hr)</td>
<td>5.87 (10757) 5.60 (13527)</td>
</tr>
<tr>
<td><strong>Heat Rejection</strong></td>
<td></td>
</tr>
<tr>
<td>Heat rejection to jacket water circuit (JW+AC1+OC) – kW (Btu/min)</td>
<td>486 (27927) 600 (34126)</td>
</tr>
<tr>
<td>Heat rejection to jacket water – kW (Btu/min)</td>
<td>365 (27668) 422 (24010)</td>
</tr>
<tr>
<td>Heat rejection to exhaust (LHV to 120°C/248°F) – kW (Btu/min)</td>
<td>602 (34230) 748 (42513)</td>
</tr>
<tr>
<td>Heat rejection to auxiliary circuit temperature – kW (Btu/min)</td>
<td>65 (3671) 93 (5272)</td>
</tr>
<tr>
<td>Heat rejection to atmosphere from engine and generator – kW (Btu/min)</td>
<td>126 (7185) 151 (8605)</td>
</tr>
</tbody>
</table>
Weights and Dimensions

<table>
<thead>
<tr>
<th>Dim “A” mm (in)</th>
<th>Dim “B” mm (in)</th>
<th>Dim “C” mm (in)</th>
<th>Dry Weight kg (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6011 (236)</td>
<td>2809 (110)</td>
<td>2671 (105)</td>
<td>12,500 (27,500)</td>
</tr>
</tbody>
</table>

Note: For reference only. Do not use for installation design. Contact your local Cat dealer for precise weights and dimensions.

Ratings Definitions

Standby
Output available with varying load for the duration of an emergency outage. Average power output is 100% of the standby power rating. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

Continuous
Output available with non-varying load for unlimited time. Average power output is 70-100% of the continuous power rating. Typical peak demand is 100% of continuous rating for 100% of the operating hours with maximum expected usage of 500 hours per year.

Applicable Codes and Standards

Note: Codes may not be available in all model configurations. Please consult your local Cat dealer for availability.

Fuel Rates
1. For transient response, ambient, and altitude capabilities consult your local Cat dealer.
2. Fuel pressure range specified is to the engine fuel control valve. Additional fuel train components may be required and should be considered in pressure and flow calculations.
3. For a complete reference of definitions and conditions see the following datasheets
   a. 750ekw Standby
      EM2091 w/fan - 2 g/bhp-hr NOx
      EM2093 w/fan - 1 g/bhp-hr NOx
      EM2095 w/fan - 0.5 g/bhp-hr NOx
      EM2092 w/o fan - 2 g/bhp-hr NOx
      EM2094 w/o fan - 1 g/bhp-hr NOx
      EM2096 w/o fan - 0.5 g/bhp-hr NOx
   b. 1000ekw Standby
      EM1622 w/fan - 2 g/bhp-hr NOx
      EM2089 w/fan - 1 g/bhp-hr NOx
      EM2087 w/fan - 0.5 g/bhp-hr NOx
      EM1623 w/o fan - 2 g/bhp-hr NOx
      EM2090 w/o fan - 1 g/bhp-hr NOx
      EM2088 w/o fan - 0.5 g/bhp-hr NOx