Cat® G3512
Load Management Gas Generator Sets

| Bore – mm (in) | 170 (6.7) |
| Stroke – mm (in) | 190 (7.5) |
| Displacement – L (in³) | 52 (3173) |
| Compression Ratio | 9.7 |
| Aspiration | Turbocharged |
| Fuel System | Electronic Fuel Control Valve |
| Governor Type | ADEM™ A4 |

Continuous – Load Management
60 Hz ekW (kVA)
750 (937)

Emissions Performance
NOx configurable from 0.5 to 2.0 g/bhp-hr

Standard Features

Cat® 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

Generator Set Package
• Accepts 100% block load in one step and facilitates compliance with NPFA 110, Type 10 starting and loading requirements
• Conforms to ISO 8528-5 G2 load acceptance criteria
• Reliability verified through torsional vibration, fuel consumption, oil consumption, transient performance, and endurance testing

Alternators
• 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 45°C (113°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 protection 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

### Alternator
- **Output voltage**
  - 220V
  - 240V
  - 2400V
  - 280V
  - 2800V
  - 380V
  - 3800V
  - 440V
  - 4400V
  - 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 4.2
    - EMCP 4.3
    - EMCP 4.4
  - **Attachments**
    - Local annunciator module
    - Remote annunciator module
    - Load share module
    - Remote monitoring software

### Charging
- Battery charger – 5A
- Battery charger – 10A
- 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
- EU Declaration of Conformity
- EEC Declaration of Conformity

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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>Continuous – Load Management</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)</td>
</tr>
<tr>
<td>Performance number</td>
<td>EM2093-01</td>
</tr>
</tbody>
</table>

### Fuel Consumption

<table>
<thead>
<tr>
<th>Condition</th>
<th>MJ/ekW-hr (Btu/ekW-hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% load with fan</td>
<td>10.78 (10222)</td>
</tr>
<tr>
<td>75% load with fan</td>
<td>11.53 (10930)</td>
</tr>
<tr>
<td>50% load with fan</td>
<td>13.10 (12422)</td>
</tr>
</tbody>
</table>

### Cooling System

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiator air flow restriction – kPa (in. water)</td>
<td>.12 (.5)</td>
</tr>
<tr>
<td>Radiator air flow – m³/min (cfm)</td>
<td>1830 (64625)</td>
</tr>
<tr>
<td>Radiator ambient capability @ 152 m (500 ft) – °C (°F)</td>
<td>44 (112)</td>
</tr>
<tr>
<td>SCAC circuit temperature (maximum inlet) – °C (°F)</td>
<td>43 (130)</td>
</tr>
<tr>
<td>Jacket water temperature (maximum outlet) – °C (°F)</td>
<td>99 (210)</td>
</tr>
</tbody>
</table>

### Inlet Air

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combustion air inlet flow rate (0°C, 101.3 kPa)/(77°F, 14.7 psia) – m³/min (cfm)</td>
<td>4.54 (2422)</td>
</tr>
</tbody>
</table>

### Altitude Capability

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>At 25°C (77°F) ambient, above sea level – m (ft)</td>
<td>2862 (9390)</td>
</tr>
</tbody>
</table>

### Exhaust System

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exhaust temperature – engine outlet – °C (°F)</td>
<td>512 (953)</td>
</tr>
<tr>
<td>Air flow (0°C, 101.3 kPa)/(@ engine outlet temperture, 14.7 psia) – Nm³/bkW-hr (ft³/min)</td>
<td>4.83 (6874)</td>
</tr>
<tr>
<td>Exhaust Gas Mass Flow – kg/bkW-hr (lb/hr)</td>
<td>6.08 (11133)</td>
</tr>
</tbody>
</table>

### Heat Rejection

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LHV input – kW (Btu/min)</td>
<td>2290 (130250)</td>
</tr>
<tr>
<td>Heat rejection to jacket water – kW (Btu/min)</td>
<td>366 (20841)</td>
</tr>
<tr>
<td>Heat rejection to atmosphere – kW (Btu/min)</td>
<td>135 (7694)</td>
</tr>
<tr>
<td>Heat rejection to lube oil (OC) – kW (Btu/min)</td>
<td>73 (4158)</td>
</tr>
<tr>
<td>Heat rejection to exhaust (LHV to 77°F) – kW (Btu/min)</td>
<td>792 (45029)</td>
</tr>
<tr>
<td>Heat rejection to exhaust (LHV to 248°F) – kW (Btu/min)</td>
<td>620 (35256)</td>
</tr>
<tr>
<td>Heat rejection to A/C – Stage 1 (1AC) – kW (Btu/min)</td>
<td>52 (2969)</td>
</tr>
<tr>
<td>Heat rejection to A/C – Stage 2 (2AC) – kW (Btu/min)</td>
<td>67 (3833)</td>
</tr>
<tr>
<td>Pump power – kW (Btu/min)</td>
<td>17 (971)</td>
</tr>
</tbody>
</table>

### Emissions

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPA – S.I. Stationary Continuous</td>
<td>U.S. NSPS Compliant</td>
</tr>
<tr>
<td>NOx (as NO₂) – mg/Nm³ (g/bhp-hr)</td>
<td>431 (1)</td>
</tr>
<tr>
<td>CO – mg/Nm³ (g/bhp-hr)</td>
<td>838 (1.94)</td>
</tr>
<tr>
<td>THC (mol. wt. of 15.84) – mg/Nm³ (g/bhp-hr)</td>
<td>1174 (2.72)</td>
</tr>
<tr>
<td>NMHC (mol. wt. of 15.84) – mg/Nm³ (g/bhp-hr)</td>
<td>188 (0.44)</td>
</tr>
<tr>
<td>Exhaust O₂ – % dry</td>
<td>9.3</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>5224 (205.7)</td>
<td>2286 (90.0)</td>
<td>2525 (99.4)</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

Continuous
Output available with non-varying load for an unlimited time. Average power output is 70-100% of the continuous power rating. Typical peak demand is 100% of continuous rated kW for 100% of the operating hours.

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 datasheet EM1508.

Applicable Codes and Standards

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