Cat® 3512C Diesel Generator Sets

Standard Features

Cat® Diesel Engine
- Meets U.S. EPA Stationary Emergency Use Only (Tier 2) emission standards
- Reliable performance proven in thousands of applications worldwide

Generator Set Package
- Accepts 100% block load in one step and meets NFPA 110 loading requirements
- Conforms to ISO 8528-5 G3 load acceptance requirements
- 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 diesel engines

Cooling System
- Cooling systems available to operate in ambient temperatures up to 50°C (122°F)
- Tested to ensure proper generator set cooling

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 and mission critical ratings
- 12 months/unlimited hour warranty for prime and 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

<table>
<thead>
<tr>
<th>Standard Features</th>
<th>Emissions Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standby</strong> 60 Hz 1750 (2187)</td>
<td><strong>Mission Critical</strong> 60 Hz 1750 (2187)</td>
</tr>
<tr>
<td>Bore – mm (in) 170 (6.69)</td>
<td>Stroke – mm (in) 215 (8.46)</td>
</tr>
<tr>
<td>Compression Ratio 14.7:1</td>
<td>Aspiration TA</td>
</tr>
<tr>
<td>Governor Type ADEM™ A3</td>
<td></td>
</tr>
</tbody>
</table>

Image shown may not reflect actual configuration
## Optional Equipment

### Engine
- **Air Cleaner**
  - Single element
  - Dual element
  - Heavy duty

- **Muffler**
  - Industrial grade (15 dB)

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

### Alternator
- **Output voltage**
  - 380V
  - 6600V
  - 440V
  - 6900V
  - 480V
  - 12470V
  - 600V
  - 13200V
  - 4160V
  - 13800V
  - 6300V

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

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

- **Excitation**
  - Internal excitation (IE)
  - Permanent magnet (PM)

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

### Power Termination
- **Type**
  - Bus bar
  - Circuit breaker
  - 1600A
  - 2000A
  - 2500A
  - 3200A
  - 3000A
  - UL
  - IEC
  - 3-pole
  - 4-pole
  - Manually operated
  - Electrically operated

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

### Control System
- **Controller**
  - EMCP 4.2B
  - EMCP 4.3
  - EMCP 4.4

- **Attachments**
  - Local annunciator module
  - Remote annunciator module
  - Expansion I/O module
  - Remote monitoring software

### Charging
- **Battery charger**
  - 10A
  - 20A
  - 35A

### Vibration Isolators
- **Spring**
- **Seismic rated**

### Cat Connect
- **Connectivity**
  - Ethernet
  - Cellular
  - Satellite

### Extended Service Options
- **Terms**
  - 2 year (prime)
  - 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**
- **IBC seismic certification**
- **OSHPD pre-approval**

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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</th>
<th>Mission Critical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>60 Hz</td>
<td>60 Hz</td>
</tr>
<tr>
<td>Gen set power rating with fan</td>
<td>1750 ekW</td>
<td>1750 ekW</td>
</tr>
<tr>
<td>Gen set power rating with fan @ 0.8 power factor</td>
<td>2187 kVA</td>
<td>2187 kVA</td>
</tr>
<tr>
<td>Emissions certification</td>
<td>EPA ESE (Tier 2)</td>
<td>EPA ESE (Tier 2)</td>
</tr>
<tr>
<td>Performance number</td>
<td>EM1787-01</td>
<td>EM1948-01</td>
</tr>
<tr>
<td><strong>Fuel Consumption</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100% load with fan – L/hr (gal/hr)</td>
<td>467.1 (123.4)</td>
<td>467.1 (123.4)</td>
</tr>
<tr>
<td>75% load with fan – L/hr (gal/hr)</td>
<td>356.8 (94.3)</td>
<td>356.8 (94.3)</td>
</tr>
<tr>
<td>50% load with fan – L/hr (gal/hr)</td>
<td>261.6 (69.1)</td>
<td>261.6 (69.1)</td>
</tr>
<tr>
<td>25% load with fan – L/hr (gal/hr)</td>
<td>160.4 (42.4)</td>
<td>160.4 (42.4)</td>
</tr>
<tr>
<td><strong>Cooling System</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radiator air flow restriction (system) – kPa (in. water)</td>
<td>0.12 (0.48)</td>
<td>0.12 (0.48)</td>
</tr>
<tr>
<td>Radiator air flow – m³/min (cfm)</td>
<td>2075 (73278)</td>
<td>2075 (73278)</td>
</tr>
<tr>
<td>Engine coolant capacity – L (gal)</td>
<td>156.8 (41.4)</td>
<td>156.8 (41.4)</td>
</tr>
<tr>
<td>Radiator coolant capacity – L (gal)</td>
<td>201 (53)</td>
<td>201 (53)</td>
</tr>
<tr>
<td>Total coolant capacity – L (gal)</td>
<td>357.8 (94.4)</td>
<td>357.8 (94.4)</td>
</tr>
<tr>
<td><strong>Inlet Air</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combustion air inlet flow rate – m³/min (cfm)</td>
<td>161.7 (5708.8)</td>
<td>161.7 (5708.8)</td>
</tr>
<tr>
<td><strong>Exhaust System</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exhaust stack gas temperature – °C (°F)</td>
<td>453.5 (848.4)</td>
<td>453.5 (848.4)</td>
</tr>
<tr>
<td>Exhaust gas flow rate – m³/min (cfm)</td>
<td>405.0 (14299.5)</td>
<td>405.0 (14299.5)</td>
</tr>
<tr>
<td>Exhaust system backpressure (maximum allowable) – kPa (in. water)</td>
<td>6.7 (27.0)</td>
<td>6.7 (27.0)</td>
</tr>
<tr>
<td><strong>Heat Rejection</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heat rejection to jacket water – kW (Btu/min)</td>
<td>597 (33968)</td>
<td>597 (33968)</td>
</tr>
<tr>
<td>Heat rejection to exhaust (total) – kW (Btu/min)</td>
<td>1755 (99777)</td>
<td>1755 (99777)</td>
</tr>
<tr>
<td>Heat rejection to aftercooler – kW (Btu/min)</td>
<td>553 (31457)</td>
<td>553 (31457)</td>
</tr>
<tr>
<td>Heat rejection to atmosphere from engine – kW (Btu/min)</td>
<td>129 (7341)</td>
<td>129 (7341)</td>
</tr>
<tr>
<td>Heat rejection from alternator – kW (Btu/min)</td>
<td>86 (4908)</td>
<td>86 (4908)</td>
</tr>
<tr>
<td><strong>Emissions</strong> (Nominal)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOx mg/Nm³ (g/hp-h)</td>
<td>2390.9 (5.15)</td>
<td>2390.9 (5.15)</td>
</tr>
<tr>
<td>CO mg/Nm³ (g/hp-h)</td>
<td>242.2 (0.52)</td>
<td>242.2 (0.52)</td>
</tr>
<tr>
<td>HC mg/Nm³ (g/hp-h)</td>
<td>47.7 (0.12)</td>
<td>47.7 (0.12)</td>
</tr>
<tr>
<td>PM mg/Nm³ (g/hp-h)</td>
<td>20.3 (0.05)</td>
<td>20.3 (0.05)</td>
</tr>
<tr>
<td><strong>Emissions</strong> (Potential Site Variation)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOx mg/Nm³ (g/hp-h)</td>
<td>2869.0 (6.18)</td>
<td>2869.0 (6.18)</td>
</tr>
<tr>
<td>CO mg/Nm³ (g/hp-h)</td>
<td>435.9 (0.94)</td>
<td>435.9 (0.94)</td>
</tr>
<tr>
<td>HC mg/Nm³ (g/hp-h)</td>
<td>63.4 (0.16)</td>
<td>63.4 (0.16)</td>
</tr>
<tr>
<td>PM mg/Nm³ (g/hp-h)</td>
<td>28.4 (0.07)</td>
<td>28.4 (0.07)</td>
</tr>
</tbody>
</table>

*mg/Nm³ levels are corrected to 5% O₂. Contact your local Cat dealer for further information.
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>6178 (243.2)</td>
<td>2281 (89.8)</td>
<td>2794 (110.0)</td>
<td>14 820 (32,660)</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 the interruption of the normal source power. Average power output is 70% of the standby power rating. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

**Mission Critical**
Output available with varying load for the duration of the interruption of the normal source power. Average power output is 85% of the mission critical power rating. Typical peak demand up to 100% of rated power for up to 5% of the operating time. Typical operation is 200 hours per year, 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.

**Data Center Applications**
- ISO 8528-1 Data Center Power (DCP) compliant per DCP application of Cat diesel generator set prime power rating.
- All ratings Tier III/Tier IV compliant per Uptime Institute requirements.
- All ratings ANSI/TIA-942 compliant for Rated-1 through Rated-4 data centers.

**Fuel Rates**
Fuel rates are based on fuel oil of 35º API [16ºC (60ºF)] gravity having an LHV of 42,780 kJ/kg (18,390 Btu/lb) when used at 29ºC (85ºF) and weighing 838.9 g/liter (7.001 lbs/U.S. gal.)