Cat® 3516C
Diesel Generator Sets

Bore – mm (in) | 170 (6.69)  
Stroke – mm (in) | 215 (8.46)  
Displacement – L (in³) | 78 (4764.73)  
Compression Ratio | 14.7:1  
Aspiration | TA  
Fuel System | EUI  
Governor Type | ADEM™ A3

<table>
<thead>
<tr>
<th>Standby 60 Hz ekW (kVA)</th>
<th>Mission Critical 60 Hz ekW (kVA)</th>
<th>Prime 60 Hz ekW (kVA)</th>
<th>Continuous 60 Hz ekW (kVA)</th>
<th>Emissions Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2500 (3125)</td>
<td>2500 (3125)</td>
<td>2250 (2812)</td>
<td>2050 (2562)</td>
<td>U.S. EPA Stationary Emergency Use Only (Tier 2)</td>
</tr>
</tbody>
</table>

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

Image shown may not reflect actual configuration
## Optional Equipment

### Engine

**Air Cleaner**
- Single element
- Dual element

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

### Starting
- Standard batteries
- Oversized batteries
- Standard electric starter(s)
- Heavy duty electric starter(s)
- Air starter(s)
- Jacket water heater

### Alternator

**Output voltage**
- 380V
- 440V
- 480V
- 600V
- 2400V
- 4160V

**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)

### Power Termination

**Type**
- Bus bar
- Circuit breaker
- 1600A
- 2000A
- 2500A
- 3000A
- 3200A
- 4000A
- 5000A
- IEC
- UL
- 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 annunciation module
- Remote annunciation module
- Expansion I/O module
- Remote monitoring software

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

### Vibration Isolators
- Rubber
- 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

---

**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>
<th>Prime</th>
<th>Continuous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>60 Hz</td>
<td>60 Hz</td>
<td>60 Hz</td>
<td>60 Hz</td>
</tr>
<tr>
<td>Gen set power rating with fan</td>
<td>2500 ekW</td>
<td>2500 ekW</td>
<td>2250 ekW</td>
<td>2050 ekW</td>
</tr>
<tr>
<td>Gen set power rating with fan @ 0.8 power factor</td>
<td>3125 kVA</td>
<td>3125 kVA</td>
<td>2812 kVA</td>
<td>2562 kVA</td>
</tr>
<tr>
<td>Emissions</td>
<td>EPA ESE (TIER 2)</td>
<td>EPA ESE (TIER 2)</td>
<td>EPA ESE (TIER 2)</td>
<td>EPA ESE (TIER 2)</td>
</tr>
<tr>
<td>Performance number</td>
<td>EM1894-01</td>
<td>EM1895-02</td>
<td>DM8447-04</td>
<td>DM8268-03</td>
</tr>
</tbody>
</table>

## Fuel Consumption

<table>
<thead>
<tr>
<th></th>
<th>% Load</th>
<th>L/hr (gal/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% load with fan</td>
<td>656.8 (175.3)</td>
<td>656.8 (175.3)</td>
</tr>
<tr>
<td>75% load with fan</td>
<td>510.8 (134.9)</td>
<td>510.8 (134.9)</td>
</tr>
<tr>
<td>50% load with fan</td>
<td>372.4 (98.4)</td>
<td>372.4 (98.4)</td>
</tr>
<tr>
<td>25% load with fan</td>
<td>219.3 (57.9)</td>
<td>219.3 (57.9)</td>
</tr>
</tbody>
</table>

## Cooling System

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiator air flow restriction (system) – kPa (in. water)</td>
<td>0.12 (0.48)</td>
</tr>
<tr>
<td>Radiator air flow – m³/min (cfm)</td>
<td>2356 (83201)</td>
</tr>
<tr>
<td>Engine coolant capacity – L (gal)</td>
<td>233.0 (61.6)</td>
</tr>
<tr>
<td>Radiator coolant capacity – L (gal)</td>
<td>180.0 (47.6)</td>
</tr>
<tr>
<td>Total coolant capacity – L (gal)</td>
<td>413.0 (109.2)</td>
</tr>
</tbody>
</table>

## Inlet Air

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Combustion air inlet flow rate – m³/min (cfm)</td>
<td>242.2 (7212.2)</td>
</tr>
</tbody>
</table>

## Exhaust System

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Exhaust stack gas temperature – °C (°F)</td>
<td>490.7 (915.2)</td>
</tr>
<tr>
<td>Exhaust gas flow rate – m³/min (cfm)</td>
<td>554.5 (19578.8)</td>
</tr>
<tr>
<td>Exhaust system backpressure (maximum allowable) – kPa (in. water)</td>
<td>6.7 (27.0)</td>
</tr>
</tbody>
</table>

## Heat Rejection

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat rejection to jacket water – kW (Btu/min)</td>
<td>826 (46992)</td>
</tr>
<tr>
<td>Heat rejection to exhaust (total) – kW (Btu/min)</td>
<td>2502 (142265)</td>
</tr>
<tr>
<td>Heat rejection to aftercooler – kW (Btu/min)</td>
<td>786 (44723)</td>
</tr>
<tr>
<td>Heat rejection to atmosphere from engine – kW (Btu/min)</td>
<td>161 (9146)</td>
</tr>
<tr>
<td>Heat rejection from alternator – kW (Btu/min)</td>
<td>121 (6853)</td>
</tr>
</tbody>
</table>

## Emissions* (Nominal)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx mg/Nm³ (g/hp-h)</td>
<td>2349.1 (5.32)</td>
</tr>
<tr>
<td>CO mg/Nm³ (g/hp-h)</td>
<td>195.4 (0.42)</td>
</tr>
<tr>
<td>HC mg/Nm³ (g/hp-h)</td>
<td>42.1 (0.10)</td>
</tr>
<tr>
<td>PM mg/Nm³ (g/hp-h)</td>
<td>14.1 (0.04)</td>
</tr>
</tbody>
</table>

## Emissions* (Potential Site Variation)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx mg/Nm³ (g/hp-h)</td>
<td>2818.9 (6.38)</td>
</tr>
<tr>
<td>CO mg/Nm³ (g/hp-h)</td>
<td>351.8 (0.76)</td>
</tr>
<tr>
<td>HC mg/Nm³ (g/hp-h)</td>
<td>55.9 (0.14)</td>
</tr>
<tr>
<td>PM mg/Nm³ (g/hp-h)</td>
<td>19.7 (0.05)</td>
</tr>
</tbody>
</table>

*mg/Nm³ levels are corrected to 5% O₂. Contact your local Cat dealer for further information.
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.

**Prime**
Output available with varying load for an unlimited time. Average power output is 70% of the prime power rating. Typical peak demand is 100% of prime rated kW with 10% overload capability for emergency use for a maximum of 1 hour in 12. Overload operation cannot exceed 25 hours per year.

**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.

### 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.)

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