Cat® G3516B
Natural Gas Generator Sets

Image shown may not reflect actual configuration

<table>
<thead>
<tr>
<th>Bore – mm (in)</th>
<th>Stroke – mm (in)</th>
<th>Displacement – L (in³)</th>
<th>Aspiration</th>
<th>Fuel System</th>
<th>Governor Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>170 (6.7)</td>
<td>190 (7.5)</td>
<td>69.0 (4211)</td>
<td>Turbocharged</td>
<td>Electronic Fuel Control Valve</td>
<td>ADEM™ A4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Continuous 60 Hz</th>
<th>Fuel Type</th>
<th>ekW (kVA)</th>
<th>Compression Ratio</th>
<th>Engine Speed – rpm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Gas</td>
<td>1300 (1625)</td>
<td>11.0:1</td>
<td>1800</td>
<td></td>
</tr>
</tbody>
</table>

**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
- Conservative power density for reliability and long operational life span
- High percentage of component commonality with diesel engines

**Generator Set Package**
- Reliability verified through torsional vibration, fuel consumption, oil consumption, transient performance, and endurance testing

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

**Applications**
- Caterpillar generator sets are capable of maximizing power production opportunities in an extensive range of industries

**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**
- 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 System
- Air inlet adapter

Cooling System
- Mechanical joint assembly

Exhaust System
- Elbows
- Expanders
- Flanges
- Flexible fittings

Fuel System
- Fuel filter - shipped loose
- Fuel regulator - shipped loose

General
- Barring group

Lubrication
- Lubricating oil (NGEO)
- Oil level regulator
- Electric prelude
- Positive crankcase ventilation
- Duplex oil filter

Mufflers
- Industrial Grade (15dB)
- Residential Grade (18dB)
- Critical Grade (25dB)
- Spark Arresting

Protection System
- Explosion Relief Valves

Starting/Charging
- Charging alternator - 60A
- Battery charger - 20A
- Battery charger - 10A
- Oversized batteries
- Battery cables / racks
- Air starters
- Jacket water heater

Generators

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

Temperature Rise (over 40°C ambient)
- 105°C
- 80°C

Attachments
- Anti-condensation heater
- Generator RTD module
- Neutral Ground

Power Termination

Type
- NEMA Bus bar
- Circuit breaker

Circuit Breaker Options
- 1600A
- 2000A
- UL
- IEC
- 3-pole
- 4-pole
- Manually operated
- Electrically operated

Trip Unit Options
- LSI
- LSI-G
- LSIG-P

Control System

Controller
- EMCP 4.3
- EMCP 4.4

Attachments
- Discrete I/O module
- Load share module
- Local annunciator module
- Remote annunciator module
- Remote monitoring software

Vibration Isolators
- Rubber
- Spring
- Seismic rated

Enclosure
- Weather protective
- Sound attenuated

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

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

Note: Some options may not be available on all models. Certifications may not be available with all model configurations. Consult factory for availability.
# 60 Hz Standard Package Performance – AC and JW Pumps

<table>
<thead>
<tr>
<th>Performance</th>
<th>Continuous 60 Hz</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>1300 (1625) 1300 (1625)</td>
</tr>
<tr>
<td>Engine speed – rpm</td>
<td>1800 1800</td>
</tr>
<tr>
<td>Emissions – mg/Nm³(g/bhp-hr) NOx</td>
<td>205 (0.5) 429 (1.0)</td>
</tr>
<tr>
<td>Performance number</td>
<td>DM5643-03 DM5645-03</td>
</tr>
</tbody>
</table>

**Fuel Consumption**

<table>
<thead>
<tr>
<th>Performance</th>
<th>Continuous 60 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% load with fan – MJ/ekW-hr (Btu/ekW-hr)</td>
<td>10.51 (9965) 10.23 (9704)</td>
</tr>
<tr>
<td>75% load with fan – MJ/ekW-hr (Btu/ekW-hr)</td>
<td>10.98 (10415) 10.60 (10046)</td>
</tr>
<tr>
<td>50% load with fan – MJ/ekW-hr (Btu/ekW-hr)</td>
<td>11.64 (11036) 11.50 (10900)</td>
</tr>
</tbody>
</table>

**Cooling System**

<table>
<thead>
<tr>
<th>Performance</th>
<th>Continuous 60 Hz</th>
</tr>
</thead>
<tbody>
<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>92 (198) 92 (198)</td>
</tr>
</tbody>
</table>

**Inlet Air**

<table>
<thead>
<tr>
<th>Performance</th>
<th>Continuous 60 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combustion air inlet flow rate (0°C, 101.3 kPa)/(77°F, 14.7 psia) – Nm³/bkW-hr (ft³/min)</td>
<td>4.73 (4121) 4.51 (3932)</td>
</tr>
</tbody>
</table>

**Altitude Capability**

<table>
<thead>
<tr>
<th>Performance</th>
<th>Continuous 60 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>At 25°C (77°F) ambient, above sea level – m (ft)</td>
<td>682 (2238) 903 (2963)</td>
</tr>
</tbody>
</table>

**Exhaust System**

<table>
<thead>
<tr>
<th>Performance</th>
<th>Continuous 60 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exhaust temperature – engine outlet – °C (°F)</td>
<td>523 (974) 530 (986)</td>
</tr>
<tr>
<td>Exhaust gas flow (0°C, 101.3 kPa, 14.5psia) – Nm³/bkW-hr (ft³/min)</td>
<td>5.03 (11850) 4.80 (11418)</td>
</tr>
<tr>
<td>Exhaust gas mass flow – kg/bkW-hr (lb/hr)</td>
<td>6.34 (18939) 6.05 (18086)</td>
</tr>
</tbody>
</table>

**Heat Rejection**

<table>
<thead>
<tr>
<th>Performance</th>
<th>Continuous 60 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat rejection to jacket water – kW (Btu/min)</td>
<td>504 (28688) 491 (27939)</td>
</tr>
<tr>
<td>Heat rejection to exhaust (LHV to 120°C/248°F) – kW (Btu/min)</td>
<td>1086 (61754) 1056 (60078)</td>
</tr>
<tr>
<td>Heat rejection to auxiliary circuit – kW (Btu/min)</td>
<td>140 (7961) 124 (7052)</td>
</tr>
<tr>
<td>Heat rejection to atmosphere from engine and generator – kW (Btu/min)</td>
<td>186 (10565) 186 (10565)</td>
</tr>
<tr>
<td>Heat rejection to jacket water circuit (JW+OC+AC1) – kW (Btu/min)</td>
<td>799 (45469) 774 (44029)</td>
</tr>
</tbody>
</table>
Weights and Dimensions

<table>
<thead>
<tr>
<th>Dim “A”</th>
<th>Dim “B”</th>
<th>Dim “C”</th>
<th>Dry Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm (in)</td>
<td>mm (in)</td>
<td>mm (in)</td>
<td>kg (lb)</td>
</tr>
<tr>
<td>5519.10 (217.28)</td>
<td>2180.20 (85.83)</td>
<td>2402.00 (94.56)</td>
<td>12618 (27823)</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 e kW for 100% of operating hours.

Applicable Codes and Standards

Note: Codes and standards compliance 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. 60 Hz 1300ekw Continuous /Standard (W/ Pumps)
      DM5643-03 (0.5g/bhp-hr NOx) - SCAC IN/OUT: 130/198°F
   b. 60 Hz 1300ekw Continuous /Standard (W/ Pumps)
      DM5645-03 (1.0g/bhp-hr NOx) - SCAC IN/OUT: 130/198°F

http://www.cat.com/powergeneration
©2020 Caterpillar
All rights reserved.

Materials and specifications are subject to change without notice. The International System of Units (SI) is used in this publication.

CAT, CATERPILLAR, LET'S DO THE WORK, their respective logos, “Caterpillar Yellow”, the “Power Edge” and Cat “Modern Hex” trade dress as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.