CATERPILLAR® ENGINE SPECIFICATIONS

V-16, 4-Stroke-Cycle Spark-Ignited
Bore — in (mm) ......................... 6.7 (170)
Stroke — in (mm) ....................... 7.5 (190)
Displacement — cu in (L) .............. 4210 (67.4)
Aspiration ............ Turbocharged-Aftercooled
Compression ratio ...................... 11:1, 9:1

CATERPILLAR® SR4 GENERATOR

Type ............ Static regulator, brushless excited
Construction ........ Single bearing, close coupled
Three phase ............. Wye connected
Insulation ......................... Class F
Enclosure ......................... Drip proof
Alignment ..................... Caterpillar pilot shaft
Overspeed capability ................. 130%
Waveform .................... Less than 5% deviation
Voltage regulator ........ 3-phase sensing with Volts-per-Hertz

Voltage regulation ............ Less than ± 1%
Voltage gain .............. Adjustable to compensate for engine speed droop and line loss
TIF ............................. Less than 50
THF ............................. Less than 3%
### STANDARD EQUIPMENT

- Air cleaners with service indicator
- Breather, crankcase
- Cooler, lubricating oil
- Filters, lubricating oil, RH
- Flywheel housing, SAE No. 00
- Governor (Woodward), magneto engine: 2301, EIS engine: 2301A
- Ignition system, Altronic III or Caterpillar EIS
- Instrument panel, RH or LH: exhaust temp., intake manifold pressure, intake manifold temp., oil pressure, oil pressure differential, service meter, water temp.
- Lifting eyes
- Manifold, exhaust, watercooled
- Paint, Caterpillar yellow
- Protection devices
- Pumps: gear driven aftercooler water, lubricating oil jacket water
- Rails, mounting, 10 inch
- Regulator, gas pressure
- SAE standard rotation
- Thermostats and housing
- Torsional vibration damper

### OPTIONAL EQUIPMENT

- Cooling systems, high temperature
- Custom generator voltages
- Exhaust fittings
- Generator mounted control panel
- Load share governor
- Low BTU arrangements
- Low pressure gas fuel system (2 psi)
- Muffler
- Power takeoffs
- Prelube pump
- Starting systems
- Tachometer
## TECHNICAL DATA

### G3516 Gas Engine Generator Set–1200 rpm

<table>
<thead>
<tr>
<th></th>
<th>90 LE</th>
<th>130 LE</th>
<th>90 TA</th>
<th>130 TA</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Output @ 0.8 PF without Fan kW</td>
<td>820</td>
<td>770</td>
<td>770</td>
<td>750</td>
<td>460</td>
</tr>
<tr>
<td>Voltage</td>
<td>480/4160</td>
<td>480/4160</td>
<td>480/4160</td>
<td>480/4160</td>
<td>480</td>
</tr>
<tr>
<td>Compression Ratio</td>
<td>11:1</td>
<td>11:1</td>
<td>9:1</td>
<td>9:1</td>
<td>9:1</td>
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<tr>
<td>Minimum Gas Pressure Required psi</td>
<td>1</td>
<td>1</td>
<td>25</td>
<td>25</td>
<td>2</td>
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<tr>
<td>Shipping Weight</td>
<td>lb</td>
<td>26 020</td>
<td>26 020</td>
<td>25 820</td>
<td>25 820</td>
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<tr>
<td>Gen Set Length</td>
<td>in</td>
<td>192.3</td>
<td>192.3</td>
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<tr>
<td>Gen Set Width</td>
<td>in</td>
<td>67.1</td>
<td>67.1</td>
<td>67.1</td>
<td>67.1</td>
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<tr>
<td>NOx</td>
<td>g/bhp-hr</td>
<td>2.0</td>
<td>2.0</td>
<td>18.0</td>
<td>20.1</td>
</tr>
<tr>
<td>CO</td>
<td>g/bhp-hr</td>
<td>1.3</td>
<td>1.5</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>HC (total)</td>
<td>g/bhp-hr</td>
<td>4.2</td>
<td>3.9</td>
<td>1.0</td>
<td>1.1</td>
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<tr>
<td>HC (non-methane)</td>
<td>g/bhp-hr</td>
<td>0.6</td>
<td>0.6</td>
<td>0.1</td>
<td>0.2</td>
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<tr>
<td>Fuel Consumption (100% load) Btu/hp-hr</td>
<td>7082</td>
<td>7011</td>
<td>7570</td>
<td>7506</td>
<td>8064</td>
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<tr>
<td>Fuel Consumption (75% load) Btu/hp-hr</td>
<td>7160</td>
<td>7174</td>
<td>7859</td>
<td>7895</td>
<td>8467</td>
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<tr>
<td>Air Inlet Flow Rate</td>
<td>scfm</td>
<td>2300</td>
<td>2203</td>
<td>1579</td>
<td>1544</td>
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<tr>
<td>Exhaust Gas Flow Rate @ Stack F cfm</td>
<td>5827</td>
<td>5551</td>
<td>4446</td>
<td>4344</td>
<td>3087</td>
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<tr>
<td>Heat Rejection to Jacket Water (total) Btu/min</td>
<td>37 590</td>
<td>35 429</td>
<td>51 921</td>
<td>50 215</td>
<td>35 259</td>
</tr>
<tr>
<td>Heat Rejection to Exhaust (to 350° F) Btu/min</td>
<td>19 734</td>
<td>19 392</td>
<td>17 231</td>
<td>16 549</td>
<td>14 502</td>
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<tr>
<td>Heat Rejection to Aftercooler Btu/min</td>
<td>8132</td>
<td>6199</td>
<td>4777</td>
<td>3753</td>
<td>–</td>
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<tr>
<td>Heat Rejection to Atmosphere from Engine Btu/min</td>
<td>10 407</td>
<td>8644</td>
<td>8530</td>
<td>8132</td>
<td>4891</td>
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<tr>
<td>Exhaust Gas Stack Temperature Deg. F</td>
<td>769</td>
<td>781</td>
<td>872</td>
<td>864</td>
<td>1063</td>
</tr>
</tbody>
</table>

LE refers to low emission engine configuration.
TA refers to standard engine configuration.
90 refers to aftercooler water inlet temperature in °F.
130 refers to aftercooler water inlet temperature in °F.
All data is based on standard conditions.
These ratings do not allow for overload capability.
See general dimension drawing 114-1975 for additional Electronic Ignition System (EIS) engine detail and NA information.

For magneto ignition system engines see general dimension drawing 7C-5067.

Note: General configuration not to be used for installation.

**CONDITIONS AND DEFINITIONS**

**Ratings** are based on SAE J1349 standard conditions of 29.61 in Hg (100 kPa) and 77° F (25° C). These ratings also apply at ISO3046/1, DIN6271, and BS5514 standard conditions of 29.61 in Hg (100 kPa) and 81° F (27° C); and API 7B-11C standard conditions of 29.38 in Hg (99 kPa) and 85° F (29° C) also apply.

**Ratings** are based on dry natural gas having a low heat value of 905 btu/ft³ (35.22 MJ/m³). Variations in altitude, temperature and gas composition from standard conditions may require a reduction in engine horsepower.

**Turbocharged-aftercooled ratings** apply to 5000 ft (1525 m) and 77° F (25° C). **Naturally aspirated** engines apply to 500 ft (150 m) and 85° F (29° C). For applications which exceed these limits consult your Caterpillar dealer.

**Continuous** – Output available without varying load for an unlimited time. Continuous power in accordance with ISO8528, ISO3046/1, AS2789, DIN6271, and BS5514.

Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for details.