Rental Power
230 kW

Description
This Cummins Power Generation rental package is a fully integrated mobile power generation system, providing optimum performance, reliability and versatility for standby and prime power applications.

Features
Cummins diesel engines
- U.S. EPA Tier III compliant
- Rugged 4-cycle industrial diesel engine with excellent transient performance
- Lightweight, compact and excellent fuel economy
- 2-stage spin on fuel filter w/pre-filter water separator with drain
- Equipped with heavy duty, 2-stage air cleaners with dust ejector

Control features
- The most advanced, reliable and capable generator set control system on the market today
- Controls provide precise frequency and voltage regulation, alarm and status message display in one easy to operate customer interface
- Remote monitoring and operation ready
- Auto shutdown at fault detection

Engine controls
- Oil Pressure and Water Temp Gauge
- Fuel Level Gauge & Battery Voltage Gauge
- Hour meter

Stamford alternators
- 12-lead reconnectable alternators fitted with voltage selection switch
- Permanent magnet excitation for improved performance in non-linear load applications

Rental package enclosure
- Heavy duty trailer package with pintle hitch and electric or hydraulic brakes
- Sound attenuated, white powder coated lockable enclosure
- 18 hour fuel tank (100% prime) with gauge
- Roof mounted, single point lift
- Cooling system rated for 104° F (40° C) ambient
- Complete engine fluid containment reservoir
- DOT approved trailer with light package, replaceable fenders and jack stand
- Low coolant shutdown feature
- Voltage selector switch
- Shore power (120 VAC) - No breakers in shore power connection. Shore power loads are coolant heater (option) and battery charger (option). Connection: 15A/120V flanged male receptacle (S-20 flanged inlet).

<table>
<thead>
<tr>
<th>Model</th>
<th>Volatges (V)</th>
<th>Standby rating</th>
<th>Prime rating</th>
<th>Engine model</th>
<th>Alternator model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>60 Hz kW (kVA)</td>
<td>50 Hz kW (kVA)</td>
<td>60 Hz kW (kVA)</td>
<td>50 Hz kW (kVA)</td>
</tr>
<tr>
<td>C230D6RT</td>
<td>208/480</td>
<td>230 (287)</td>
<td></td>
<td>210 (262)</td>
<td>QSL9-G2</td>
</tr>
<tr>
<td>480/600 switchable</td>
<td>230 (287)</td>
<td>210 (262)</td>
<td></td>
<td></td>
<td>QSL9-G2</td>
</tr>
</tbody>
</table>
Engine specifications

Engine model QSL9-G2
Alternator data sheet HCI434C (208/480), HCI434E (480/600 switchable)
Engine data sheet DS-92067
Tier rating Tier III
Design 4 cycle, In-Line, turbocharged and after-cooled
Bore 114 mm (4.49 in.)
Stroke 145.0 mm (5.69 in.)
Displacement 8.8 liters (543 in³)
Cylinder block Cast iron, In-Line 6 cylinder
Battery capacity 2 x 750 cca
Battery charging alternator 100 amps
Starting voltage 12 volt, negative ground
Fuel system Bosch HPCR: No.2 diesel fuel
Fuel filter Spin on fuel filter with water separator
Air cleaner type 2-stage, dry replaceable element with dust ejector
Lube oil filter type(s) Single spin-on, full flow
Standard cooling system 104° F (40° C) ambient radiator

Alternator specifications

Design Brushless, 4 pole, drip proof revolving field
Stator 2/3 pitch
Rotor Single bearing, flexible disc
Insulation system Class H per NEMA MG1-1.65 (208/480 VAC)
Class F per NEMA MG1-1.65 (480/600 VAC switchable)
Standard temperature rise 125/40º C prime (208/480 VAC)
105/40º C prime (480/600 VAC switchable)
Exciter type PMG (permanent magnet generator)
Phase rotation A (U), B (V), C (W)
Alternator cooling Direct drive centrifugal blower fan
AC waveform total harmonic distortion < 1.5% no load, < 5% non-distorting balance linear load
Telephone influence factor (TIF) < 50 per NEMA MG1-22.43
Telephone harmonic factor (THF) < 2%

Power capability specifications

<table>
<thead>
<tr>
<th>Standby rating</th>
<th>240 V, 1 phase Amps</th>
<th>208 V, 3 phase Amps</th>
<th>480 V, 3 phase Amps</th>
<th>600 V, 3 phase Amps</th>
</tr>
</thead>
<tbody>
<tr>
<td>C230D6RT</td>
<td>640</td>
<td>695</td>
<td>346</td>
<td>277</td>
</tr>
</tbody>
</table>

Electrical power panel specifications

<table>
<thead>
<tr>
<th>Model voltage</th>
<th>120 V duplex receptacles</th>
<th>240 V twist</th>
<th>Load lug connection (stud diameter)</th>
<th>Load lug circuit breakers</th>
</tr>
</thead>
<tbody>
<tr>
<td>120/480 Volt</td>
<td>2 - 20 Amp</td>
<td>3 - 50 Amp</td>
<td>1/2 inch</td>
<td>900 Amp</td>
</tr>
<tr>
<td>480/600 Volt switchable</td>
<td>0</td>
<td>0</td>
<td>1/2 inch</td>
<td>400 Amp</td>
</tr>
</tbody>
</table>

Site derating factors

Standby application: The engine may be operated at 1800 rpm up to 1,500 ft (457 m) and 104° F (40° C) without power deration. For sustained operation above these conditions, derate by 6% per 1,000 ft (300 m), and 15% per 18° F (10° C).
Control system

PowerCommand control
- Integrated automatic voltage regulator and engine speed governor
- Control components designed to withstand the vibration levels typical in generator sets

Standard control description
- Analog AC frequency meter
- Analog AC voltage meter
- Cycle cranking control
- Digital display panel
- Idle mode control
- Menu switch
- Panel backlighting
- Remote starting, 12 V, 2 wire
- Reset switch
- Run-off-auto switch
- Sealed front panel, gasketed door
- Self diagnostics
- Voltmeter/ammeter phase selector switch

Standard performance data warnings
- High coolant temperature
- High DC voltage
- Low coolant temperature
- Low DC voltage
- Low oil pressure
- Over current
- Weak battery
- Over speed
- Under frequency
- Intake manifold temperature high
- Fail to start/stop
- Over frequency
- Alternator reconnecting switch operated (breaker closed)

Agency approvals
- NFPA110 for Levels 1 or 2 systems
- ISO 8528-4: 1993 Compliance, Controls and Switchgear
- CE Marking
- EN 50081-1, 2 Residential/Light Industrial Emissions or Industrial Emissions
- EN 50082-1.2
- ISO 7637-2, Level 2: DC supply surge test
- Mil Std 202C, Method 101 and ASTM B117: Salt Fog Test
- Designed and manufactured in ISO 9001 certified facilities. Suitable for use on generator sets that are UL 2200 Listed

Standard generator electrical features
- Multiple voltage selector switch (480/277 VAC/3 phase or 240/139 VAC/3 phase or 240/120 VAC/1 phase)
- Potentiometer adjustable to 208/120 VAC/3 phase
- Single phase convenience receptacles
- Voltage adjustment potentiometer
- Distribution panel with L1, L2, L3 neutral and ground
- Main line shunt trip type circuit breaker
- Auto start-stop with remote contacts
- Over current sensing
- 3 available auxiliary connections

Rental package options
- Heavy duty jack stand – center mounted
- Immersion style coolant heater
- Tank style coolant heater
- Low coolant shutdown system (standard on 300 kW)
- Phase selector switch on control panel
- Battery disconnect switch
- Cam lock distribution panel
- 110 Volt, 3.5 Amp Sens battery charger
- Base mount generator – no trailer
- 600 Volt/480 Volt switchable
Ratings definitions

Standby:
Applicable for supplying emergency power for the duration of normal power interruption. No sustained overload capability is available for this rating. (Equivalent to Fuel Stop Power in accordance with ISO3046, AS2789, DIN6271 and BS5514). Nominally rated.

Prime (unlimited running time):
Applicable for supplying power in lieu of commercially purchased power. Prime power is the maximum power available at a variable load for an unlimited number of hours. A 10% overload capability is available for limited time. (Equivalent to Prime Power in accordance with ISO8528 and Overload Power in accordance with ISO3046, AS2789, DIN6271, and BS5514).

Dimensions

<table>
<thead>
<tr>
<th>Model</th>
<th>Dim “A” mm (in.)</th>
<th>Dim “B” mm (in.)</th>
<th>Dim “C” mm (in.)</th>
<th>Weight w/o fuel kg (lbs)</th>
<th>Weight with fuel kg (lbs)</th>
<th>Fuel capacity liters (gal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C230D6RT</td>
<td>3658 (144)</td>
<td>1270 (50)</td>
<td>2210 (87)</td>
<td>3892 (8580)</td>
<td>4844 (10680)</td>
<td>1137 (300)</td>
</tr>
<tr>
<td>With trailer</td>
<td>5233 (206)</td>
<td>2134 (84)</td>
<td>2693 (106)</td>
<td>4745 (10460)</td>
<td>5697 (12560)</td>
<td>1137 (300)</td>
</tr>
</tbody>
</table>

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>KW rating</th>
<th>Sound level dB(A) @ 7 m</th>
<th>Tier rating</th>
<th>Hours of operation (75% load)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Standby</td>
<td>Prime</td>
<td>Standby</td>
<td>Prime</td>
</tr>
<tr>
<td>C230D6RT</td>
<td>230</td>
<td>210</td>
<td>77</td>
<td>Tier III</td>
</tr>
</tbody>
</table>

Fuel consumption

<table>
<thead>
<tr>
<th>60 Hz Ratings, kW (kVA)</th>
<th>Standby 230 (287)</th>
<th>Prime 210 (262)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load</td>
<td>¼</td>
<td>½</td>
</tr>
<tr>
<td>Gal/hr</td>
<td>5.9</td>
<td>10.6</td>
</tr>
<tr>
<td>L/hr</td>
<td>22.3</td>
<td>40.1</td>
</tr>
</tbody>
</table>

Trailer information

<table>
<thead>
<tr>
<th>Model</th>
<th>Tire size</th>
<th>Tire type</th>
<th>Load range</th>
<th>Number of tires per trailer</th>
<th>Lug pattern</th>
<th>Wheel brand</th>
</tr>
</thead>
<tbody>
<tr>
<td>C230D6RT</td>
<td>ST235/85-R16E</td>
<td>Radial</td>
<td>E</td>
<td>4</td>
<td>8 lug on 6.5” bolt</td>
<td>Load Star karrier</td>
</tr>
</tbody>
</table>

Cummins Power Generation
1400 73rd Avenue N.E.
Minneapolis, MN 55432 USA
Telephone: 763 574 5000
USA Toll-free: 877 769 7669
Fax: 763 574 5298

Our energy working for you.™

www.cumminspower.com

©2009 Cummins Power Generation. Cummins and PowerCommand are registered trademarks of Cummins Inc. Specifications are subject to change without notice.

S-1543d (1/09)