Diesel generator set
100 kW standby
EPA emissions

**Description**
Cummins Power Generation commercial generator sets are fully integrated power generation systems providing optimum performance, reliability and versatility for stationary applications. Pre-configured diesel generator sets come in either an open configuration or with a combination of a sound attenuated enclosure and an under-skid fuel tank.

This generator set is designed in facilities certified to ISO 9001 and manufactured in facilities certified to ISO 9001 or ISO 9002.

The Prototype Test Support (PTS) program verifies the performance integrity of the generator set design. Cummins Power Generation products bearing the PTS symbol meet the prototype test requirements of NFPA 110 for Level 1 systems.

All low voltage models are CSA certified to product class 4215-01.

The generator set is available Listed (3 phase) to UL2200, Stationary Engine Generator Assemblies.

Engine certified to Stationary Emergency U.S. EPA New Source Performance Standards, 40CFR 60 subpart III Tier 3 exhaust emission levels. U.S. applications must be applied per this EPA regulation.

The generator set package is available certified for seismic application in accordance with the following International Building Code: IBC2000, IBC2003, IBC2006 and IBC2009.

**Features**

**Cummins** heavy-duty engine - Rugged 4-cycle industrial diesel engine delivers reliable power, low emissions and fast response to load changes. 1800 rpm operation offers quiet performance and superior durability.

Alternator - 12 lead reconnectible alternators offer superior motor starting capability with low reacance 2/3 pitch windings, low waveform distortion with non linear loads and fault clearing short-circuit capability. Pre-wired from the factory for single phase output.

Control system - The PowerCommand 1.1 is standard equipment that provides integrated generator set control system. Major features include:
- Alpha-numeric display with push button access for viewing engine and alternator data and providing set up, controls and adjustments (English or international symbols)
- LED lamps indicating various genset status
- AC protection including warning and/or shutdown for over current, over and under voltage, over and under frequency, over excitation, field overload, etc.
- Full engine protection including warning and/or shutdown for overspeed, low coolant, high temperature, low battery voltage, over crank, low oil level, etc.
- Standard PCCNet interface to devices such as remote annunciator for NFPA 110 applications
- Inpower PC-based service tool for detailed diagnostics such as data logging and fault simulation
- Remote start/stop
- 2 configurable inputs/outputs
- Control boards potted for environmental protection
- Control suitable for -40 °C to +70 °C (-40 °F to 158 °F) and altitude to 5000 meters (13,000 feet)

Cooling system - Standard integral set-mounted radiator system, designed and tested for ambient temperatures up to 55 °C (131 °F), simplifies facility design requirements for rejected heat.

Fuel tank - 309 gallon (1171 liters) dual wall sub-base fuel tank is offered as standard equipment for enclosed unit. Fuel tank is UL / ULC listed and built in compliance with NFPA 30, 37, 110.

NFPA - The genset accepts full rated load in a single step in accordance with NFPA 110 for Level 1 systems.

Warranty and service - Two year standard warranty for standby applications and backed up by worldwide distributor network. Extended warranty options available.

Cold weather package – Genset equipped with coolant heater as a standard feature.

<table>
<thead>
<tr>
<th>Model</th>
<th>Phase</th>
<th>Voltage</th>
<th>Hz</th>
<th>kW</th>
<th>kVA</th>
<th>Amps</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSGAA</td>
<td>1</td>
<td>120/240</td>
<td>60</td>
<td>100</td>
<td>125</td>
<td>417</td>
</tr>
</tbody>
</table>

Other optional voltages may be available

**Ratings definitions**

Emergency standby power (ESP): Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528.

Derate factor: Engine power available up to 3048 m (10,000 ft) at ambient temperature up to 50 °C (122° F).

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Generator set specifications

Governor regulation class
ISO 8528 Part 1 Class G3

Voltage regulation, no load to full load
± 1%

Random voltage variation
± 0.5%

Frequency regulation
Isochronous

Random frequency variation
± 0.25%

Engine specifications

Displacement
6.69 L (408 in³)

Configuration
Cast iron, in-line, 6 cylinder

Battery charging alternator
100 amps

Starting voltage
12 volt, negative ground

Fuel system
Direct injection: number 2 diesel fuel, fuel filter, automatic electric fuel shutoff

Fuel filter
Single element, 10 micron filtration, spin-on fuel filter with water separator

Air cleaner type
Dry replaceable element

Lube oil filter type(s)
Spin-on, full flow

Alternator data

Alternator design
Brushless, 4 pole, drip proof, revolving field, 1800 rpm

Alternator rotor
Single bearing, flexible discs

Alternator insulation system
Class H

Alternator standard temperature rise
125 ºC standby at 40 ºC ambient

AC waveform total harmonic distortion
< 5% no load to full load; 3% for any single harmonic

Three Phase Table

<table>
<thead>
<tr>
<th>Feature Code</th>
<th>Voltage Ranges</th>
<th>Surge kW</th>
<th>Motor Starting kVA (at 90% sustained voltage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>125 ºC</td>
<td>277/480</td>
<td>156</td>
<td>Shunt</td>
</tr>
<tr>
<td>B267-2</td>
<td>120/208</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>120/240</td>
<td></td>
<td></td>
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</tbody>
</table>

Single Phase Table

<table>
<thead>
<tr>
<th>Feature Code</th>
<th>Voltage Ranges</th>
<th>Surge kW</th>
<th>Motor Starting kVA (at 90% sustained voltage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>125 ºC</td>
<td>120/240</td>
<td>152</td>
<td></td>
</tr>
<tr>
<td>B267-2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sound levels

Standard-unhoused – infinite exhaust
86.3 dB(A) at 7 meters (23 ft) at full rated load

F173 – Quiet Site II second stage – mounted muffler
71.9 dB(A) at 7 meters (23 ft) at full rated load

Dimensions and weights

<table>
<thead>
<tr>
<th>Package Dimensions</th>
<th>Footprint Dimensions</th>
<th>Set wet weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length mm (in)</td>
<td>Width mm (in)</td>
<td>Height mm (in)</td>
</tr>
<tr>
<td>Open unit without fuel tank</td>
<td>2656 (104.6)</td>
<td>1100 (43.3)</td>
</tr>
<tr>
<td>Enclosed unit with fuel tank</td>
<td>3678.8 (145)</td>
<td>1100 (43.3)</td>
</tr>
</tbody>
</table>

Generator set accessories

Engine
- 120 V 150 W lube oil heater

Control
- Auxiliary output relays
- 120V, 100W anti-condensation heater
- Remote annunciator
- PowerCommand iWatch web server for remote monitoring and email notification
- AC output analog meters display ( bargraph)
- Remote operator/display panel

Generator set
- AC entrance box
- Battery
- Battery charger
- Spring isolators
- Accessory kits for U.S. regional codes

Warning: Back feed to a utility system can cause electrocution and/or property damage. Do not connect to any building’s electrical system except through an approved device or after building main switch is open.

North America
1400 73rd Avenue N.E.
Minneapolis, MN 55432
USA
Phone 763 574 5000
Fax 763 574 5298

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