

## Specification sheet





# 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.
<b>CSA</b>	All low voltage models are certified to CSA C22.2 No.100 and CSA C22.2 No.14.
<b>UL2200</b>	The generator set is available listed to UL2200.
<b>U.S. EPA</b>	Engine certified to Stationary Emergency U.S. EPA New Source Performance Standards, 40CFR 60 subpart IIII Tier 3 exhaust emission levels. U.S. applications must be applied per this EPA regulation.
<b>International Building Code</b>	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 reconnectable alternators offer superior motor starting capability with low reactance 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.

Model	Phase	Voltage	Hz	Standby rating		
				kW	kVA	Amps
DSGAA	1	120/240	60	100	125	417

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 in <sup>3</sup> )
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 °C standby at 40 °C ambient
AC waveform total harmonic distortion	< 5% no load to full load; 3% for any single harmonic

Three Phase Table		125 °C	Single Phase Table		125 °C
Feature Code		B267-2	Feature Code		B267-2
Alternator Data Sheet Number		209	Alternator Data Sheet Number		209
		277/480			
		120/208			
Voltage Ranges		120/240	Voltage Ranges		120/240
Surge kW		156	Surge kW		152
Motor Starting kVA (at 90% sustained voltage)	Shunt	516	Motor Starting kVA (at 90% sustained voltage)	Shunt	305

## 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

	Package Dimensions			Footprint Dimensions		Set wet weight Kg (lbs)
	Length mm (in)	Width mm (in)	Height mm (in)	Length mm (in)	Width mm (in)	
Open unit without fuel tank	2656 (104.6)	1100 (43.3)	1548 (61)	2656 (104.6)	1100 (43.3)	1263 (2784)
Enclosed unit with fuel tank	3678.8 (145)	1100 (43.3)	2455.9 (96.7)	3015 (118.7)	1100 (43.3)	2599 (5738)

## 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
- Fuel tank**
- Accessory kits for U.S. regional codes

### Generator set

- Standby comprehensive 2 year/1500 hour
- Standby basic extended 5 year/1500 hour
- Standby comprehensive extended 5 year/1500 hour

**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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