

Specification sheet

Diesel generator set 80 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.

U.S. EPA

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.

International Building Code

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 PCC2100 is standard equipment that provides integrated generator set control system. Major features include:

- Graphical display with push button menu for viewing engine and alternator data and providing set up, controls and adjustments; configurable for local language
- LED lamps indicating genset status
- AmpSentry Protective Relay providing a full range of alternator protection functions
- Full engine protection including warning and/or shutdown for overspeed, low coolant, high temperature, low battery voltage, over crank, low oil pressure, etc.
- Standard PCCNet interface to devices such as remote annunciator for NFPA 110 applications
- Digital electronic isochronous governor
- Inpower PC-based service tool for detailed diagnostics such as data logging and fault simulation
- Remote start/stop
- Configurable customer inputs (4)/outputs (4)
- Configurable network inputs (8) and outputs (16) (with optional network)
- 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 54 °C (129 °F), simplifies facility design requirements for rejected heat.

Fuel tank - 140 gallon (530 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
DSFAE	1	120/240	60	80	100	333

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 2500 m (8200 ft) at ambient temperature up to 55° C (131° F).

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Generator set specifications

Governor regulation class	
Voltage regulation, no load to full load	± 1%
Random voltage variation	± 0.5% - 3 phase only
Frequency regulation	Isochronous
Random frequency variation	± 0.25%

Engine specifications

Displacement	4.5 L (272 in)
Configuration	Cast iron, in-line, 4 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		208	Alternator Data Sheet Number		208
Voltage Ranges		277/480 120/208 120/240	Voltage Ranges		120/240
Surge kW		83	Surge kW		81
Motor Starting kVA (at 90% sustained voltage)	Shunt	422	Motor Starting kVA (at 90% sustained voltage)	Shunt	250

Sound levels

Standard-unhoused – infinite exhaust	87.7 dB(A) at 7 meters (23 ft) at full rated load
F173 – Quiet Site II second stage – mounted muffler	71.8 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	2104 (82.8)	1016 (40)	1255 (49.4)	2104 (82.8)	1016 (40)	1220 (2690)
Enclosed unit with fuel tank	2578 (101.5)	1049 (41.3)	2332 (91.8)	2104 (82.8)	1016 (40)	1943 (4283)

Generator set accessories

Engine

- 120 V 150 W lube oil heater

Control

- Auxiliary output relays
- Thermostatically controlled space 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.

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