



## Specification sheet

# Natural gas generator set QSV91 series engine

1750 kW-2000 kW  
60Hz Standby



### Description

Cummins Power Generation gas generator sets are fully integrated power generation systems utilizing state of the art technology that results in optimum performance and efficient use of fuel for standby applications.

### Features

**Exhaust emissions** – Lean burn technology provides exhaust emissions levels as low as 0.5 g/hp-hr NO<sub>x</sub>.

**Cummins® heavy-duty engine** – Rugged 4-cycle lean burn gas combustion engine utilizing full authority electronic engine management and monitoring.

**Permanent magnet generator (PMG)** – Offers enhanced motor starting and fault clearing short circuit capability.

**Alternator** – Several alternator sizes offer selectable voltage and temperature rise with low reactance 2/3 pitch windings; low waveform distortion with non-linear loads, fault clearing short-circuit capability, class F or H insulation (see Alternator Data Sheet for details), bearing and stator RTDs and anti-condensation heater. Mechanically strengthened for use on utility paralleling with unreliable grid.

**Control system** – The PowerCommand 3.3 generator set control is standard equipment and provides total genset system integration including full paralleling capability in grid or load share mode, precise frequency and voltage regulation, alarm and status message display, AmpSentry™ protection, output metering, auto-shutdown at fault detection and a user interface panel installed onto the genset. Optional remote operator panels are also available.

**Cooling system** – The generator set is equipped with the capability of interfacing with a remote radiator or heat exchanger.

**Warranty and service** – Backed by a comprehensive warranty and worldwide distributor network that can provide all levels of service from replacements parts to performance guarantee programs.

### 60 Hz

Model	kW (kVA)	Configuration
C1750 N6B	1750 (2188)	4 pole alternator through gearbox
C2000 N6B	2000 (2500)	4 pole alternator through gearbox

\*Genset is capable of operating between 0.8 lagging and 1.0 power factor. All fuel consumption and heat balance data is at 1.0 power factor.

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## Generator set specifications

Governor regulation class	ISO 8528 Part 5, Class G1
Voltage regulation, no load to full load	± 0.5%
Random voltage variation	± 0.5%
Frequency regulation	Isochronous
Random frequency variation	± 0.25%
Radio frequency emissions compliance	IEC 801.2 through IEC 801.5; MIL STD 461C, Part 9
Single step load pickup	Consult factory for details

## Engine specifications

Design	4 cycle, V-block, turbocharged low temperature aftercooled
Bore	180 mm (7.09 in)
Stroke	200 mm (7.87 in)
Displacement	91.6 liters (5590 in3)
Cylinder block	Cast iron, V18
Battery charging alternator	None
Starting voltage	24 volt negative ground
Fuel system	Lean burn
Ignition system	Individual coil on plug
Air cleaner type	Dry replaceable element
Lube oil filter type(s)	Full flow and bypass filters
Breather	Breather filter

## Alternator specifications

Design	Brushless, 4 pole, revolving field
Stator	2/3 pitch
Rotor	Two bearing
Insulation system	Class F and H see ADS (Alternator Data Sheet) for details
Standard temperature rise	105 °C (221 °F) Continuous @ 40 °C (104 °F) ambient
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	< 5% no load to full linear load, < 3% for any single harmonic
Telephone influence factor (TIF)	< 50 per NEMA MG1-22.43
Telephone harmonic factor (THF)	< 3

## Available voltages

60 Hz Three phase line-neutral/line-line

- 220/380
- 240/416
- 254/440
- 277/480
- 347/600
- 2400/4160
- 7200/12470
- 7620/13200
- 7970/13800

Note: Some voltages may not be available on all models - consult factory for availability.

## Generator set options and accessories

### Engine

- NO<sub>x</sub> 0.5 g/hp-hr
- NO<sub>x</sub> 1.0 g/hp-hr
- Natural gas fuel methane index as low as 50
- Air starter

### Alternator

- 125 °C (257 °F) rise alternator
- 105 °C (221 °F) rise alternator
- 80 °C (176 °F) rise alternator

### Control panel

- Remote operator panel with HMI320

### Accessories

- Exhaust silencers
- Gas train
- Radiators
- Bladder expansion tank

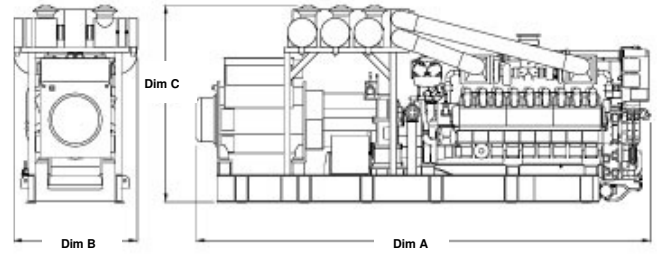
Note: Some options may not be available on all models - consult factory for availability.

## Emergency Standby Power (ESP) definition

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.

## Limited-Time Running Power (LTP) definition

Applicable for supplying power to a constant electrical load for limited hours. Limited-Time Running Power (LTP) is in accordance with ISO 8528.



This outline drawing is to provide representative configuration details for Model series only.

See respective model data sheet for specific model outline drawing number.




Do not use for installation design

## Dimensions and weights\*

Model	Dim "A" mm (in.)	Dim "B" mm (in.)	Dim "C" mm (in.)	Set Weight wet kg (lbs)
C1750 N6B	7299 (287.4)	1980 (78.0)	2937 (115.6)	23826 (52528)
C2000 N6B	7299 (287.4)	1980 (78.0)	2937 (115.6)	25462 (56135)

\* Weights and dimensions represent a set with standard features. See outline drawings for weights and dimensions of other configurations.

## Codes and standards

	<p>This generator set is designed in facilities certified to ISO 9001 and manufactured in facilities certified to ISO 9001 or ISO 9002.</p>	 <p>The Prototype Test Support (PTS) program verifies the performance integrity of the generator set design.</p>
	<p>This generator set complies with all relevant essential requirements, health and safety or environmental, laid down in the applicable directive(s).</p>	

**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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