

## Generator set data sheet



**Model:** **C80 N6**  
**Frequency:** 60 Hz  
**Fuel type:** Natural gas/propane  
**kW rating:** **80 natural gas Standby**  
**80 propane Standby**  
**Emissions level:** EPA Emissions

→ Fuel consumption	Natural gas Standby				Propane Standby			
	kW (kVA)				kW (kVA)			
Ratings	80 (100)				80 (100)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
scfh	455.3	678.7	877.0	1083.5	181.9	263.0	339.8	420.8
m <sup>3</sup> /hr	12.9	19.2	24.8	30.7	5.2	7.5	9.6	11.9

Engine	Natural gas Standby rating	Propane Standby rating
Engine model	QSJ5.9G-G3	
Configuration	Cast iron, in-line 6 cylinder	
Aspiration	Turbocharged and after-cooled	
Gross engine power output, kWm (bhp)	121.3 (162.7)	
Bore, mm (in.)	102.1 (4.02)	
Stroke, mm (in.)	119.9 (4.72)	
Rated speed, rpm	1800	
Compression ratio	8.5:1	
Lube oil capacity, L (qt)	14.2 (15)	
Overspeed limit, rpm	2250	

### Fuel supply pressure

Minimum operating pressure, kPa (in H <sub>2</sub> O)	1.5 (6.0)
Maximum operating pressure, kPa (in H <sub>2</sub> O)	3.2 (13.0)

Air	Natural gas Standby rating	Propane Standby rating
Combustion air, m <sup>3</sup> /min (scfm)	7.6 (268.1)	7.6 (269.1)
Maximum normal duty air cleaner restriction, kPa (in H <sub>2</sub> O)	0.4 (1.5)	0.4 (1.5)
Maximum heavy duty air cleaner restriction, kPa (in H <sub>2</sub> O)	3.7 (15)	3.7 (15)

<b>Exhaust</b>	<b>Natural gas Standby rating</b>	<b>Propane Standby rating</b>
Exhaust flow at rated load, m <sup>3</sup> /min (cfm)	23.0 (810.8)	21.2 (750.2)
Exhaust temperature, °C (°F)	633.9 (1173.1)	644.0 (1191.2)
Exhaust maximum back pressure, kPa (in H <sub>2</sub> O)	7 (28.1)	7 (28.1)

### Standard set-mounted radiator cooling<sup>1</sup>

Ambient design, °C (°F)	50 (122)
Fan load, kW (HP)	9 (12)
Coolant capacity (with radiator), L (US gal)	16 (4.2)
Cooling system air flow, m <sup>3</sup> /min (scfm)	218.0 (7700)
Maximum cooling air flow static restriction, kPa (in H <sub>2</sub> O)	0.12 (0.5)

### Weights<sup>2</sup>

Unit dry weight kgs (lbs)	1216 (2680)
Unit wet weight kgs (lbs)	1255 (2766)

#### Notes:

<sup>1</sup> For non-standard remote installations contact your local Cummins representative.

<sup>2</sup> Weights represent a set with standard features. See outline drawing for weights of other configurations.

### Alternator data

Standard alternators	Natural gas/propane single phase table	Natural gas/propane three phase table					Full single phase output, reconnectable	
Maximum temperature rise above 40 °C ambient	120 °C	120 °C	120 °C	120 °C	120 °C	120 °C	120 °C	
Feature code	BB90-2	B986-2	B946-2	B943-2	B952-2	BB86-2	BB88-2	
Alternator data sheet number	ADS-206	ADS-205	ADS-205	ADS-205	ADS-205	ADS-206	ADS-208	
Voltage ranges	120/240	120/240	120/208	277/480	347/600	127/220	120 - 480	
Voltage feature code	R104-2	R106-2	R098-2	R002-2	R114-2	R020-2	Varies by voltage	
Surge kW	96.9	103.4	103.4	103.2	103.2	103.2	Varies by voltage	
Motor starting kVA (at 90% sustained voltage)	Shunt	313	260	260	260	260	313	422
	PMG	368	306	306	306	306	368	497
Full load current amps at Standby rating	333	241	278	120	92	262	Varies by voltage	

## Alternator data (continued)

Optional alternators for improved starting capability	Natural gas/propane single phase table	Natural gas/propane three phase table					Full single phase output, reconnectable
Maximum temperature rise above 40 °C ambient	105 °C	105 °C	105 °C	105 °C	105 °C	105 °C	105 °C
Feature code	BB91-2	BB94-2	BB93-2	BB95-2	BB92-2	BB85-2	BB87-2
Alternator data sheet number	ADS-207	ADS-206	ADS-206	ADS-206	ADS-206	ADS-206	ADS-208
Voltage ranges	120/240	120/240	120/208	277/480	347/600	127/220	120 - 480
Voltage feature code	R104-2	R106-2	R098-2	R002-2	R114-2	R020-2	Varies by voltage
Surge kW	97.7	102.8	102.8	103.6	103.6	103.6	Varies by voltage
Motor starting kVA (at 90% sustained voltage)	Shunt	360	313	313	313	313	422
	PMG	423	368	368	368	368	497
Full load current amps at Standby rating	333	241	278	120	92	262	Varies by voltage

## Derating factors

### Natural gas/propane

Standby	Engine power available up to 1829 m (6000 ft) at ambient temperatures up to 40 °C (104 °F). Above these elevations derate at 4% per 305 m (1000 ft) and 2% per 10 °C above 40 °C (104 °F).
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## Ratings definitions

Emergency Standby Power (ESP):	Limited-Time Running Power (LTP):	Prime Power (PRP):	Base Load (Continuous) Power (COP):
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. Fuel Stop power in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.	Applicable for supplying power to a constant electrical load for limited hours. Limited-Time Running Power (LTP) is in accordance with ISO 8528.	Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.	Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) is in accordance with ISO 8528, ISO 3046, AS 2789, DIN 6271 and BS 5514.

## Formulas for calculating full load currents:

Three phase output	Single phase output
$\frac{\text{kW} \times 1000}{\text{Voltage} \times 1.73 \times 0.8}$	$\frac{\text{kW} \times \text{SinglePhaseFactor} \times 1000}{\text{Voltage}}$

**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.

For more information contact your local Cummins distributor or visit [power.cummins.com](http://power.cummins.com)

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