

# Generator Set Data Sheet



**Model:** C60 N6  
**Frequency:** 60 Hz  
**Fuel Type:** Natural Gas/Propane  
**kW Rating:** 60 Natural Gas Standby  
 60 Propane Standby  
**Emissions Level:** EPA Emissions

|                         | Natural gas Standby |       |       |       | Propane Standby |       |       |       |
|-------------------------|---------------------|-------|-------|-------|-----------------|-------|-------|-------|
| <b>Fuel Consumption</b> | kW (kVA)            |       |       |       | kW (kVA)        |       |       |       |
| <b>Ratings</b>          | 60 (75)             |       |       |       | 60 (75)         |       |       |       |
| <b>Load</b>             | 1/4                 | 1/2   | 3/4   | Full  | 1/4             | 1/2   | 3/4   | Full  |
| <b>scfh</b>             | 363.4               | 545.0 | 729.5 | 933.8 | 151.4           | 217.0 | 289.3 | 370.2 |
| <b>m<sup>3</sup>/hr</b> | 10.3                | 15.4  | 20.7  | 26.4  | 4.3             | 6.2   | 8.2   | 10.5  |

| <b>Engine</b>                        | Natural gas Standby rating    | Propane Standby rating |
|--------------------------------------|-------------------------------|------------------------|
| Engine model                         | QSJ5.9G-G2                    |                        |
| Configuration                        | Cast iron, in-line 6 cylinder |                        |
| Aspiration                           | Turbocharged and after-cooled |                        |
| Gross engine power output, kWm (bhp) | 74.8 (100.3)                  |                        |
| 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) |

| <b>Air</b>   | Natural gas Standby rating | Propane Standby rating |
|--|----------------------------|------------------------|
| Combustion air, m <sup>3</sup> /min (scfm)                             | 4.2 (149.1)                | 3.9 (137.7)            |
| Maximum normal duty air cleaner restriction, kPa (in H <sub>2</sub> O) | 0.4 (1.5)                  |                        |
| Maximum heavy duty air cleaner restriction, kPa (in H <sub>2</sub> O)  | 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)    | 13.5 (475.4)                      | 12.4 (437.8)                  |
| Exhaust temperature, °C (°F)                             | 696.3 (1285.3)                    | 683.5 (1262.3)                |
| 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)  | 5.2 (7)      |
| Coolant capacity (with radiator), L (US gal)                           | 16 (4.2)     |
| Cooling system air flow, m <sup>3</sup> /min (scfm)                    | 158.6 (5600) |
| 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) | 1145 (2524) |
| Unit wet weight kgs (lbs) | 1184 (2610) |

#### 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-204                                | ADS-203 | ADS-204                               | ADS-204 | ADS-203 | ADS-204 | ADS-205                                 |
| 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                                      | 59.4                                   | 61.4    | 61.4                                  | 61.8    | 60.7    | 61.6    | Varies by voltage                       |
| Motor starting kVA (at 90% sustained voltage) | Shunt                                  | 231     | 188                                   | 231     | 231     | 231     | 260                                     |
|   | PMG                                    | 272     | 221                                   | 272     | 272     | 272     | 306                                     |
| Full load current amps at Standby rating      | 250                                    | 180     | 208                                   | 90      | 72      | 197     | 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 |        |
|---|--|---------------------------------------|---------|---------|---------|---------|---|--------|
|   |  | 105 °C                                | 105 °C  | 105 °C  | 105 °C  | 105 °C  |   | 105 °C |
| 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-205                                | ADS-204                               | ADS-204 | ADS-204 | ADS-203 | ADS-203 | ADS-207                                 |        |
| 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  | 60.0                                   | 61.4                                  | 61.4    | 61.8    | 61.8    | 61.6    | Varies by voltage                       |        |
| Motor starting kVA (at 90% sustained voltage)         | Shunt                                  | 260                                   | 231     | 234     | 231     | 231     | 231                                     | 360    |
|   | PMG                                    | 306                                   | 272     | 272     | 272     | 272     | 272                                     | 423    |
| Full load current amps at Standby rating              | 250                                    | 180                                   | 208     | 90      | 72      | 197     | Varies by voltage                       |        |

## Derating Factors

### Natural Gas/Propane

|                |  |
|----------------|--|
| <b>Standby</b> | Engine power available up to 1006 m (3300 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). |
|----------------|--|

## Ratings Definitions

| <b>Emergency Standby Power (ESP):</b>  | <b>Limited-Time Running Power (LTP):</b>   | <b>Prime Power (PRP):</b>   | <b>Base Load (Continuous) Power (COP):</b>   |
|--|--|---|--|
| 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

$$\frac{\text{kW} \times 1000}{\text{Voltage} \times 1.73 \times 0.8}$$

### Single phase output

$$\frac{\text{kW} \times \text{SinglePhaseFactor} \times 1000}{\text{Voltage}}$$

**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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