



Exhaust Emission Data Sheet

C175D6D

60 Hz Diesel Generator Set

Engine Information:

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|--------------------------|-------------------------------------|-------------------------|--------------------------|
| Model: | Cummins QSB7-G5 NR3 | Bore: | 4.21 in. (106.9 mm) |
| Type: | 4 cycle, in-line, 6 cylinder diesel | Stroke: | 4.88 in. (123.9 mm) |
| Aspiration: | Turbocharged and Charge Air Cooled | Displacement: | 408 cu. in. (6.7 liters) |
| Compression Ratio: | 17.2:1 | Exhaust Stack Diameter: | 4 in (101.6 mm) |
| Emission Control Device: | Turbocharged and Charge Air Cooled | | |

| <u>Performance Data</u> | <u>1/4</u> <u>Standby</u> | <u>1/2</u> <u>Standby</u> | <u>3/4</u> <u>Standby</u> | <u>Full</u> <u>Standby</u> | <u>Full</u> <u>Prime</u> |
|---|------------------------------|------------------------------|------------------------------|-------------------------------|-----------------------------|
| BHP @ 1800 RPM (60 Hz) | 96 | 154 | 213.3 | 273.1 | 215.4 |
| Fuel Consumption (gal/Hr) | 5.2 | 7.8 | 10.4 | 13.1 | 11.9 |
| Exhaust Gas Flow (CFM) | 718.5 | 1062.4 | 1185.5 | 1320.2 | 1228.7 |
| Exhaust Gas Temperature (°F) | 704.5 | 795.2 | 847.6 | 896.7 | 852.3 |
| Exhaust Emission Data | | | | | |
| HC (Total Unburned Hydrocarbons) | 0.27 | 0.13 | 0.06 | 0.03 | 0.03 |
| NOx (Oxides of Nitrogen as NO ₂) | 1.86 | 1.93 | 2.59 | 3.97 | 3.45 |
| CO (Carbon Monoxide) | 1.68 | 0.92 | 0.50 | 0.22 | 0.24 |
| PM (Particulate Matter) | 0.16 | 0.10 | 0.07 | 0.03 | 0.03 |
| Smoke (Bosch) | 0.72 | 0.66 | 0.55 | 0.23 | 0.21 |
| Sulfur Dioxide (SO ₂) | 0.17 | 0.17 | 0.15 | 0.14 | 0.14 |
| All values (except smoke) are cited: g/BHP-hr | | | | | |

Test Conditions

Data is representative of steady-state engine speed (± 25 RPM) at designated genset loads. Pressures, temperatures, and emission rates were stabilized.

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| Fuel Specification: | ASTM D975 No. 2-D diesel fuel with 0.03-0.05% sulfur content (by weight), and 40-48 cetane number. |
| Fuel Temperature: | 99 ± 9 °F (at fuel pump inlet) |
| Intake Air Temperature: | 77 ± 9 °F |
| Barometric Pressure: | 29.6 ± 1 in. Hg |
| Humidity: | NOx measurement corrected to 75 grains H ₂ O/lb dry air |
| Reference Standard: | ISO 8178 |

The NOx, HC, CO and PM emission data tabulated here are representative of test data taken from a single engine under the test conditions shown above. Data for the other components are estimated. These data are subjected to instrumentation and engine-to-engine variability. Field emission test data are not guaranteed to these levels. Actual field test results may vary due to test site conditions, installation, fuel specification, test procedures and instrumentation. Engine operation with excessive air intake or exhaust restriction beyond published maximum limits, or with improper maintenance, may result in elevated emission levels.