



Exhaust emission data sheet

C100D6C

60 Hz Diesel generator set

Engine information:

Model:	Cummins QSB5-G5	Bore:	4.21 in. (106.9 mm)
Type:	4 cycle, in-line, 4 cylinder diesel	Stroke:	4.88 in. (123.9 mm)
Aspiration:	Turbocharged	Displacement:	272 cu. in. (4.45 liters)
Compression ratio:	17.3:1		
Emission control device:	Turbocharged and charge air-cooled		

	<u>1/4</u>	<u>1/2</u>	<u>3/4</u>	<u>Full</u>	<u>Full</u>
<u>Performance data</u>	<u>Standby</u>	<u>Standby</u>	<u>Standby</u>	<u>Standby</u>	<u>Prime</u>
BHP @ 1800 RPM (60 Hz)	44	88	132	176	152
Fuel consumption (gal/Hr)	2.8	4.8	6.9	8.9	7.7
Exhaust gas flow (CFM)	388	606	763	878	790
Exhaust gas temperature (°F)	496	597	764	913	808
 <u>Exhaust emission data</u>					
HC (Total unburned hydrocarbons)	0.10	0.06	0.03	0.03	0.02
NOx (Oxides of nitrogen as NO ₂)	2.31	2.22	2.73	3.84	3.70
CO (Carbon monoxide)	0.76	0.52	0.36	0.52	0.30
PM (Particular Matter)	0.16	0.23	0.04	0.05	0.03
Smoke (Bosch)	0.76	0.84	0.44	0.65	0.29
	All values are Grams per HP - Hour				

Test conditions

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

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 \pm 9 °F (at fuel pump inlet)
Intake air temperature:	77 \pm 9 °F
Barometric pressure:	29.6 \pm 1 in. Hg
Humidity:	NOx measurement corrected to 75 grains H ₂ O/lb dry air
Reference standard:	ISO 8178

The NO_x, 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.