



Exhaust emission data sheet

C50 N6

60 Hz Spark ignited generator set

EPA emission

Engine information:

Model:	QSJ5.9G-G1	Bore:	4.02 in. (102.1 mm)
Type:	4 cycle, in-line, 6 cylinder	Stroke:	4.72 in. (119.89 mm)
Aspiration:	Naturally aspirated	Displacement:	359 cu. in. (5.88 liters)
Compression ratio:	8.5:1		
Emission control device:	Electronic air/fuel ratio control, and closed-loop breather system.		

<u>Performance data</u>	<u>Natural gas</u>	<u>Propane</u>
	<u>Standby</u>	<u>Standby</u>
BHP @ 1800 RPM (60 Hz)	84.7	84.7
Fuel consumption (SCFH)	806.3	321.6
Air to fuel ratio	15.9	15.7
Exhaust gas flow (CFM)	443.8	411.1
Exhaust gas temperature (°F)	1359.7	1383.5
<u>Exhaust emission data</u>		
HC (Total unburned hydrocarbons)*	0.53	767
NOx (Oxides of nitrogen as NO2)	6.27	1316
CO (Carbon monoxide)	75.38	33665
		Values are ppmvd
HC (Total unburned hydrocarbons)*	276	1.24
NOx (Oxides of nitrogen as NO2)	1564	4.83
CO (Carbon monoxide)	22197	103.78
		Values are Grams per HP - Hour

*HC includes all NMHC, VOC, POC, and ROC constituents (Non-Methane HC, Volatile Organic Compounds, Precursor Organic Compounds, and Reactive Organic Compounds).

Test conditions

Data was recorded during steady-state rated engine speed (± 25 RPM) with full load ($\pm 2\%$). Pressures, temperatures, and emission rates were stabilized.

Fuel specification:

Natural gas:	Dry gas as received from Supplier (1000 BTU/SCF)
Propane:	Meets the requirements for Commercial Grade Propane under the ASTM D1835 Standard Specification for Liquefied Gases
Fuel temperature:	60 \pm 9 °F at Flow Transmitter
Fuel pressure:	14.73 PSIA \pm 0.5 PSIA at Flow Transmitter
Intake air temperature:	77 \pm 9 °F at inlet
Barometric pressure:	29.92 in. Hg \pm 1 in. Hg
Humidity:	NOx measurement corrected to 75 grains H2O/lb dry air

The NOx, HC, and CO emission data tabulated here were from a single engine under the test conditions shown above. 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 limit, or with improper maintenance, may result in elevated emission levels.