	<b>Cummins Inc.</b> Power Generation Business Unit 35A/1/2, Erandwane, Pune <b>EXHAUST EMISSIONS DATA SHEET</b>	Basic Engine Model: <b>S3.8-G9</b>	Curve Number: <b>FR : N/A</b>	<b>G-DRIVE</b> <b>S3.8</b> <b>1</b>
		Engine Critical Parts List: <b>CPL : N/A</b>	Date: <b>02 Apr 13</b>	
Displacement : <b>3.8 litre ( 232 in<sup>3</sup>)</b>		Bore : <b>97 mm ( 3.82 in.)</b> Stroke : <b>128 mm ( 5 in.)</b>		
No. of Cylinders : <b>4</b>		Aspiration : <b>Turbocharged</b>		
Emission Certification : <b>Non Emissionised</b>				

Engine Speed	Standby Power		Prime Power		Continuous Power	
RPM	kWm	hp	kWm	hp	kWm	hp
1800	59.7	80	54.4	73	44.8	60

### Exhaust Emission Data @ 1800 RPM

Component	Standby Power		Prime Power	
	g/BHP-h	g/kW-h	g/BHP-h	g/kW-h
HC (Total Unburned Hydrocarbons)	0.79	1.06	0.85	1.14
NOx (Oxides of Nitrogen as NO <sub>2</sub> )	7.31	9.81	7.28	9.77
CO (Carbon Monoxide)	0.73	0.99	0.70	0.95
PM (Particulate Matter)	0.154	0.207	0.158	0.212

**Note:**

All Data is based on the Engine operating with the fuel system, Water pump, Alternator & Oil Pump, 10inch of water (250 mm). Inlet Air restriction (15 inch of H<sub>2</sub>O) & with (2 inch of hg) Exhaust restriction. Optional Eqpt. like Fan & Driven components not included.


**INDIA EMISSIONS NORMS (1500 & 1800 RPM ONLY)**

This engine, tested in accordance with 40 CFR 89, is in compliance with the US EPA Non Road Tier 2 regulations.

It is certified that the above mentioned engine model complies with the emission limits applicable for Genset diesel engines upto (upto 800kW), as prescribed under the following rules, notified by ministry of Environment & Forest, Govt. of India:

- a) Rule 95 of Environment (Protection) Rules, 1986 of GSR 371(E),dt.17.05.2002.
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Test conducted as Published by CPCB. For NO<sub>x</sub>, HC, CO & PM measurement as per D2 mode cycle & ISO8178 (Part 1). Measurement of exhaust smoke is as per ISO8178 (Part3). Test fuel used as per the specification given in annexure-1 of CPCB procedure.

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