



# KD3100

## 50 Hz. Diesel Generator Set EMISSION OPTIMIZED DATA SHEET TIER 2 COMPLIANT

### ENGINE INFORMATION

Model:	KD83V16	Bore:	175 mm (6.89 in.)
Type:	4-Cycle, 16-V Cylinder	Stroke:	215 mm (8.46 in.)
Aspiration:	Turbocharged, Intercooled	Displacement:	83 L (5048 cu. in.)
Compression ratio:	16:0:1		
Emission Control Device:	Direct Diesel Injection, Engine Control Module, Turbocharger, Charge Air Cooler		

### EXHAUST EMISSION DATA:

### EPA D2 Cycle 5-mode weighted

HC	0.47 g/kWh
NO <sub>x</sub> (Oxides of Nitrogen as NO <sub>2</sub> )	5.66 g/kWh
CO (Carbon Monoxide)	1.04 g/kWh
PM (Particular Matter)	0.08 g/kWh

### EMISSION DATA

Cycle point	100% ESP	100% PRP	75% ESP	75% PRP	50% PRP					
Power [kW]	2663	2421	1997	1816	1211					
Speed [rpm]	1500	1500	1500	1500	1500					
NO <sub>x</sub> [g/kWh]	6.2	6.2	5.8	5.6	5.1					
CO [g/kWh]	0.4	0.3	0.4	0.5	1.8					
HC [g/kWh]	0.27	0.32	0.37	0.39	0.48					
PM [g/kWh]	0.02	0.02	0.02	0.02	0.12					
	@ 5% O <sub>2</sub>	@ 15% O <sub>2</sub>	@ 5% O <sub>2</sub>	@ 15% O <sub>2</sub>	@ 5% O <sub>2</sub>	@ 15% O <sub>2</sub>	@ 5% O <sub>2</sub>	@ 15% O <sub>2</sub>	@ 5% O <sub>2</sub>	@ 15% O <sub>2</sub>
HC [mg/Nm <sup>3</sup> ]	86	36	101	38	121	45	125	47	140	52
NO <sub>x</sub> [mg/Nm <sup>3</sup> ]	1976	741	1983	744	1880	705	1783	669	1475	553
CO [mg/Nm <sup>3</sup> ]	113	43	95	36	128	48	165	62	521	196
PM [mg/Nm <sup>3</sup> ]	7	3	6	2	6	2	7	3	33	13

### TEST METHODS AND CONDITIONS

#### Test Methods:

Steady-State emissions recorded per ISO8178-1 during operation at rated engine speed (+/-2%) and stated constant load (+/2%) with engine temperatures, pressures and emission rated stabilized.

#### Fuel Specification:

EN590 Diesel Fuel

#### Reference Conditions:

25°C (77 °F) Air Inlet Temperature, 40°C (104 °F) Fuel Inlet Temperature, 100 kPa (29.53 in Hg) Barometric Pressure; 10.7 g/kg (75 grains H<sub>2</sub>O/lb) of dry air Humidity. Intake Restriction set to maximum allowable limit for clean filter; Exhaust Back pressure set to maximum allowable limit.

Data was taken from a single engine test according to the test methods, fuel specification and reference conditions stated above and is subjected to instrumentation and engine-to-engine variability. Test conducted with alternate test methods, instrumentation, fuel or reference conditions can yield different results.

Data and specifications subject to change without notice.