



KD4000-E

50 Hz. Diesel Generator Set EMMISSIONS OPTIMIZED DATA SHEET

ENGINE INFORMATION

Model:	KD103V20	Bore:	175 mm (6.89 in.)
Type:	4-Cycle, 20-V Cylinder	Stroke:	215 mm (8.46 in.)
Aspiration:	Turbocharged, Charge Air Cooled	Displacement:	103 L (6311 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	0.4 g/kWh
NO _x (Oxides of Nitrogen as NO ₂)	6 g/kWh
CO (Carbon Monoxide)	0.7 g/kWh
PM (Particulate Matter)	0.1 g/kWh

EMISSION DATA

Cycle point	100% ESP	100% PRP	75% ESP	75% PRP	50% PRP					
Power [kW]	3608	3280	2706	2460	1640					
Speed [rpm]	1500	1500	1500	1500	1500					
NO _x [g/kWh]	11.3	8.9	5.32	5.1	5.23					
CO [g/kWh]	0.11	0.14	0.34	0.38	1.0					
HC [g/kWh]	0.25	0.26	0.30	0.33	0.5					
PM [g/kWh]	0.004	0.004	0.017	0.02	0.07					
	@ 5% O ₂	@ 15% O ₂	@ 5% O ₂	@ 15% O ₂	@ 5% O ₂	@ 15% O ₂	@ 5% O ₂	@ 15% O ₂	@ 5% O ₂	@ 15% O ₂
HC [mg/Nm ³]	87	32	87	33	93	35	101	38	151	56
NO _x [mg/Nm ³]	3916	1469	2991	1122	1641	615	1567	588	1575	590
CO [mg/Nm ³]	39	15	46	17	105	39	117	44	302	113
PM [mg/Nm ³]	1.4	0.5	1.3	0.5	5.2	2.0	5.8	2.2	21.2	7.9

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 H₂O/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.