



KD1650

50 Hz. Diesel Generator Set EMISSION OPTIMIZED DATA SHEET

ENGINE INFORMATION

Model:	KD45V20	Bore:	135 mm (5.31 in.)
Type:	4-Cycle, 20-V Cylinder	Stroke:	157 mm (6.18 in.)
Aspiration:	Turbocharged, Intercooled	Displacement:	45 L (2746 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	0.05 g/kWh
NO _x (Oxides of Nitrogen as NO ₂)	6.37 g/kWh
CO (Carbon Monoxide)	0.48 g/kWh
PM (Particular Matter)	0.09 g/kWh

EMISSION DATA

Cycle point	100% ESP	100% PRP	75% ESP	75% PRP	50% PRP					
Power [kW]	1463	1333	1097	1000	667					
Speed [rpm]	1500	1500	1500	1500	1500					
NO _x [g/kWh]	13.9	11.9	6.2	6.3	5.5					
CO [g/kWh]	0.3	0.3	0.3	0.3	0.3					
HC [g/kWh]	0.03	0.03	0.03	0.04	0.06					
PM [g/kWh]	0.01	0.01	0.02	0.01	0.04					
	@ 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]	9	3	10	4	9	3	11	4	17	6
NO _x [mg/Nm ³]	4602	1726	3883	1456	1910	716	1929	723	1656	621
CO [mg/Nm ³]	90	34	88	33	100	38	84	32	104	39
PM [mg/Nm ³]	2	1	3	1	5	2	4	2	12	4

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.