



KD1800

50 Hz. Diesel Generator Set FUEL 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)	18.63 g/kWh
CO (Carbon Monoxide)	0.16 g/kWh
PM (Particular Matter)	0.00 g/kWh

EMISSION DATA

Cycle point	100% ESP		100% PRP		75% ESP		75% PRP		50% PRP	
Power [kW]	1547		1463		1160		1097		732	
Speed [rpm]	1500		1500		1500		1500		1500	
NO _x [g/kWh]	16.6		16.9		19.3		19.6		19.3	
CO [g/kWh]	0.10		0.10		0.10		0.10		0.10	
HC [g/kWh]	0.02		0.03		0.03		0.03		0.05	
PM [g/kWh]	0.00		0.00		0.00		0.00		0.00	
	@ 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]	8	3	8	3	10	4	10	4	15	6
NO _x [mg/Nm ³]	5480	2055	5589	2096	6471	2426	6556	2459	6334	2375
CO [mg/Nm ³]	32	12	32	12	29	11	29	11	35	13
PM [mg/Nm ³]	0	0	0	0	0	0	0	0	1	0

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.