

KD3500

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

ENGINE INFORMATION

Model:KD83V16Bore:175 mm (6.89 in.)Type:4-Cycle, 16-V CylinderStroke:215 mm (8.46 in.)Aspiration:Turbocharged, IntercooledDisplacement: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

 $\begin{array}{ccc} HC & & & 0.45 \text{ g/kWh} \\ NO_x & (Oxides of Nitrogen as NO_2) & & 5.88 \text{ g/kWh} \\ CO & (Carbon Monoxide) & & 1.05 \text{ g/kWh} \\ PM & (Particular Matter) & & 0.08 \text{ g/kWh} \\ \end{array}$

EMISSI	ON	DA	ГΑ

Cycle point	100%	00% ESP 100% PRP		75% ESP		75% PRP		50% PRP			
Power [kW]	30	3007 2734		2255		2051		1367			
Speed [rpm]	1500		1500		1500		1500		1500		
NO _X [g/kWh]	9.3		7.8		6.0		5.9		5.2		
CO [g/kWh]	0	.2	0.2		0.3		0.4		1.3		
HC [g/kWh]	0	29	0.31		0.34		0.35		0.45		
PM [g/kWh]	0.	01 0.01		01	0.02		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]	98	37	102	38	109	41	113	42	134	50	
NOx [mg/Nm ³]	3174	1190	2610	979	1920	720	1873	702	1538	577	
CO [mg/Nm ³]	79	30	82	31	105	39	120	45	382	143	
PM [mg/Nm ³]	2	1	2	1	7	3	6	2	21	8	

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.