



Diesel Engine D2866LXE 20 Technical data

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Engine type:	four-stroke, direct-injection		
Cylinders:	6 cylinders in line, wet replaceable cylinder liners		
Aspiration:	turbocharger, intercooler		
Cooling:	water circulation by centrifugal pump on engine		
Lubrication:	force-feed lubrication by gear pump, lubrication oil cooler in cooling water circuit of engine		
Injection:	Bosch in-line pump with mechanical speed governor		
Generator:	Bosch three-phase generator with rectifier and transistorized governor 28 V, 35 A.		
Starter motor	Bosch solenoid-operated starter, type KB, 24 V, 5,4 kW		
Bore:	128mm		
Stroke:	155mm		
Volume:	11,967 L.	Filling capacities:	
Compression ratio:	15,5 : 1	- Engine lube oil for	
		standard oil sump (min.):	14 L.
		standard oil sump (max.):	18 L.
Cooling water temperature:		Inertia moments (SI-Unit)	
- under normal conditions	90°C.	- engine and vibration dampers	0,914 kgm ²
- short period under extreme conditions	95°C.	- flywheel for	
- before start of full load (min.)	40°C.	generator drive 1500 rpm:	2,412 kgm ²
- before start (min.)	0°C.	generator drive 1800 rpm:	---
Filling capacities:		Steady-state accuracy (speed droop)	
- engine cooling water abt.:	13,3 L.	- constant speed	4 - 5%
- cooling water for radiator with pipe system abt.:	20,5 L.	(at ISO standard rating)	



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	Speed	rpm	1.500	1.800
Nominal rating 1)	kW		270	313
	PS		367	426
Mean effective pressure	bar		18,0	17,4
Torque	Nm		1.719	1.661
Rating for governing purpose only 1)	kW		297	344
	PS		404	468
Mean effective pressure	bar		19,9	19,2
Torque	Nm		1.891	1.825
Mean piston velocity	m/s		7,75	9,3
Fuel consumption (5% tolerance)				
100% Load ISO-	g/kWh		201	208
75% Load standard-	g/kWh		199	205
50% Load rating	g/kWh		202	209
Lube oil consumption max.	g/h		270	325
Air for combustion	m ³ /h		1.350	1.600
Negative pressure at air filter outlet, max. permissible	hPa		30	30
Exhaust gas heat 2)	kW		233	285
Exhaust gas temperature 2)	°C.		540	470
Exhaust gas mass flow	kg/h		1.620	1.920
Exhaust gas volume flow 2)	m ³ /h		3.780	4.090
Exhaust gas back pressure max. permissible	hPa		60	60
Jacket water heat, non-cooled exhaust manifold	kW		103	125
Jacket water heat, incl. water-cooled exhaust manifold	kW		188	232



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	Drehzahl	1/min.	1.500	1.800
Minimum cooling water circulation	l/h.		21.000	25.200
Intercooler heat rate	kW		51	71
Cooling air requirements for fan-cooled radiator	m ³ /h		21.200	24.500
Power input for fan	kW		11	18
Radiation heat	kW		40	55
Noise at 1 m distance (excl. fan)	dB(A)		95	97
Weight (dry, with cooling system)	kg		1.120	1.120

1) The nominal ratings are based on reference conditions according to DIN 6271/ISO 3046/1: 298 K (25° Celsius) air temperature, 100 kPa (1000 mbar) air pressure, 60% air humidity; deratings for site conditions to be taken into account.

2) Data are for engine with non-cooled exhaust manifold

Output-related data are referred to the maximum rating specified for each speed.

Technical data are subject to alterations.