



Diesel engine D 2848 LE405
 Technical data

Part A
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Engine type :	four-stroke, direct injection		
Cylinders :	8 cylinder V-arrangement, wet replaceable cylinder liners		
Aspiration :	turbocharger, intercooler, wastegate		
Cooling :	water circulation by centrifugal pump on engine		
Lubrication :	force-feed lubrication by gear pump, lubricating 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, 55 A		
Starter motor :	Bosch solenoid-operated starter, typ KB, 24 V, 5,4 kW		
Bore :	128 mm	Starter battery capacity :	210 Ah (24V)
Stroke :	142 mm	Filling capacities :	
Volume :	14,618 l	-Engine lube oil for	
		standard oil sump (min.) :	12 l
		standard oil sump (max.) :	18 l
Compression ratio :	13,5:1		
Cooling water temperature:		Inertia moments (SI-Unit) :	
- under normal conditions	85° C	- engine and vibration damper	1,177 kgm ²
- short period under extreme conditions	90° C	- flywheel for :	
- before start of full load (min.)	40° C	variable speed	
		marine propulsion engine	1,975kgm ²
Filling capacities :		Speed droop variable speed	max. 15%
- coolant for engine with integrated cooling system and piping approx	81 l		



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 Technical data for marine diesel engine

Part A
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Mode of operation		2
Speed	rpm	2100
Maximum rating	kW	478
	HP	650
Exhaust status		IMO/ZKR
Mean effective pressure	bar	18,7
Torque	Nm	2174
Mean piston velocity	m/s	9,95
Fuel consumption (+5% tolerance)		
Mode of operation 1	g/kWh	---
Mode of operation 2	g/kWh	217
Mode of operation 3	g/kWh	---
Lube oil consumption max.	g/h	460
Air for combustion	m ³ /h	2160
Negative pressure at air filter outlet, max. permissible	hPa	10/40
Exhaust gas heat	kW	256
Exhaust gas temperature	°C	340
Exhaust gas mass flow	kg/h	2600
Exhaust gas volume flow	m ³ /h	4390
Exhaust gas back pressure permissible	hPa	20-70
Jacket water heat incl. water-cooled exhaust manifold	kW	430
Minimum cooling water circulation	l/h	41000
Intercooler heat rate	kW	94
delivery quantity of fuel supply pump	l/h	700
Power input for raw water pump	kW	3
delivery quantity of raw water pump at a back pressure of 0,6 bars	l/h	24840
Radiation heat	kW	45



Mode of operation		2
Speed	rpm	2100
Back pressure of water pump (=max. permissible back pressure in cooling system)	bar	0,4
Noise at 1m distance	dB(A)	---
Weight (dry, with cooling system)	kg	1350

Examples of application for mode of operation see Part E :

" Definition of application for MAN marine engines "

The nominal ratings are based on reference conditions according to
DIN / ISO 3046/1: 298 K (27° Celsius) air temperature, 100 kPa (1000 mbar)
air pressure, 60 % air humidity.

Maximum permissible seawater temperature : 305 K (32° Celsius)

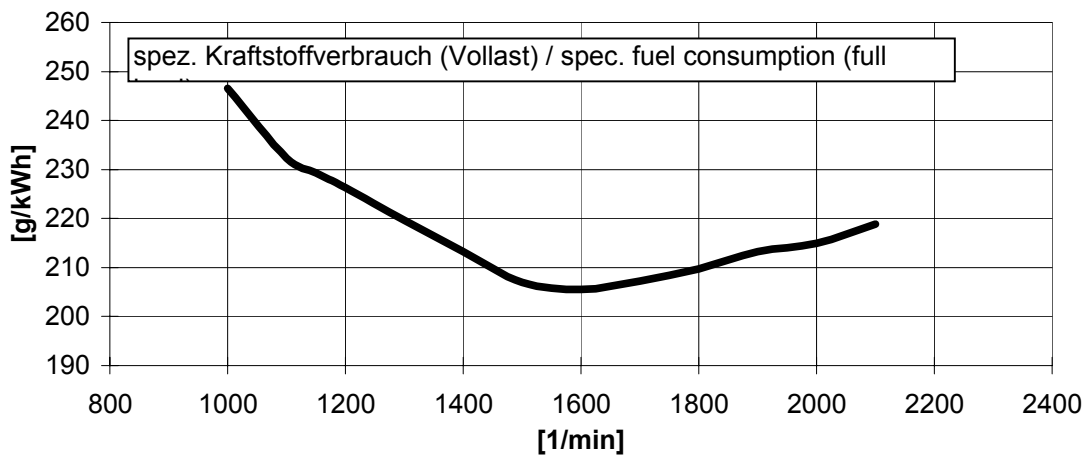
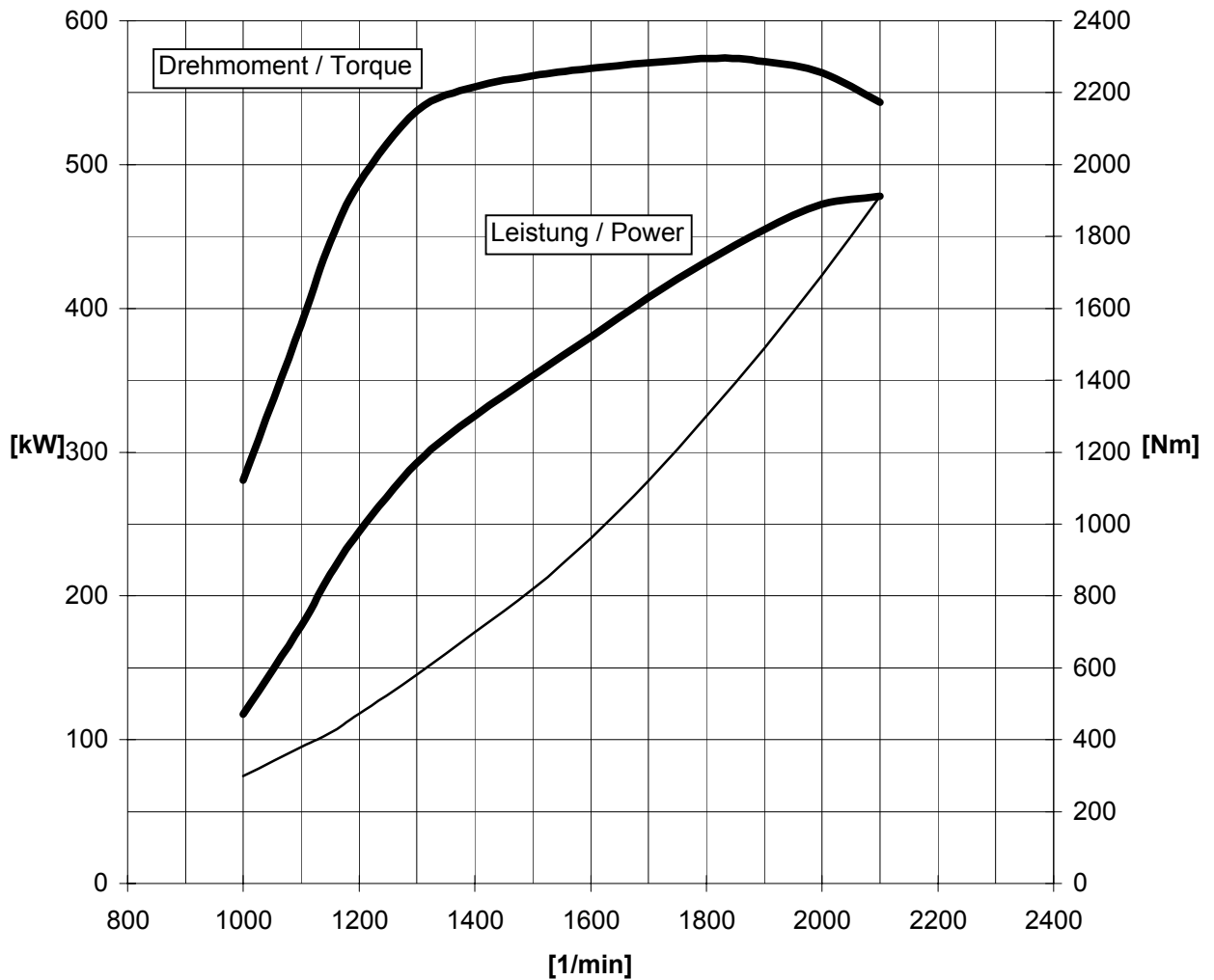
Output-related data are referred to the maximum rating specified for each speed.

Technical data are subjekt to alterations.



Leistungsdiagramm und Kraftstoffverbrauch Performance Curve and Fuel Consumption

Motortyp
D2848LE405



Nennleistung / Nenndrehzahl	478 kW bei	2100	1/min
Nominal power / nominal speed	478 kW at	2100	rpm

Leistungsangaben gemäß Bezugszustand DIN 6271 / ISO 3046/1
The ratings are based on reference conditions according to DIN 6271 / ISO 3046/1

Propellerkurve basiert auf Exponent	2,50	VEM-N	15.08.02
Propeller curve calculated at	2,50 exponent		

