



Technical data sheet

Marine diesel engine

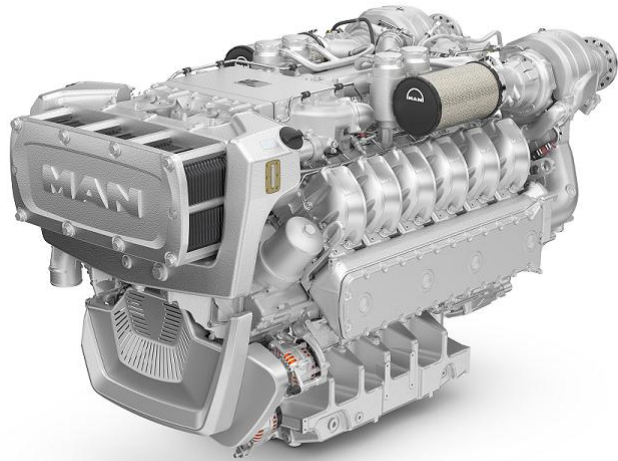
D3872LE421

17.09.2025

(Version 1)

Performance data ¹

Rated power	920	kW
Rated power	1251	PS
Speed	1800	rpm
Bore/Stroke	138/165	mm
Displacement	29,62	liter
Rated torque	4881	Nm
Maximum torque	5491	Nm
at speed	1000-1600	rpm
Compression ratio [ε]	17,0	:1
Mean effective pressure	20,71	bar
Mean piston speed	9,9	m/s



Consumption data ²

Specific fuel consumption ¹	199	g/kWh
Absolute fuel consumption ¹	218	l/h
Lowest fuel consumption ³	192	g/kWh

The engine illustrated may not entirely be identical to production standard engine

Engine description

Application	Main propulsion diesel for ships with fixed pitch propeller or variable pitch propeller
Operation profile	unlimited operating hours per year at a maximum of 100 % of time at full load
Construction	Four-stroke marine diesel engine, direct injection, SAE 1 flywheel housing
Cylinders	12 cylinders in V-arrangement, single cylinder heads with wet replaceable cylinder liners
Air system	single-stage turbocharger with charge air intercooler
Cooling system	Seawater cooled charge air cooler and plate heat exchanger by rubber impeller pump
Oil system	Force-feed lubrication by gear pump, lubricating oil cooler in cooling water circuit of the engine
Fuel system	Common Rail injection system with MD1 control, fuel to DIN EN 590
Auxiliary PTO	PTO for hydraulic pump 16 cm ³ (180Nm)
Alternator	Three-phase generator with rectifier and transistorized governor, 28V, 120A
Starting system	Solenoid-operated electric starter, 24V, 7.0kW
Service	Oil change interval 600 operating hours
Classification	Engine according to classification requirements available => see MAN Marine Configurator

Exhaust status IMO Tier II

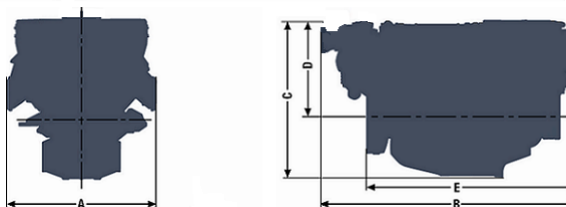
¹ Values at rated power

² Diesel fuel according to DIN EN 590 (tolerance +5% - ISO 3046)

³ Values on propeller curve

D3872LE421

A - overall width.....	1157 mm
B - overall length.....	2105 mm
C - overall height.....	1294 mm
D - above crank shaft....	829 mm
E - length to flywheel.....	1768 mm
Engine weight (dry).....	2500 kg



Combustion parameters ¹

Intake air temperature (max.)	45 °C
Intake air vacuum (min/max)	30/60 mbar
Intake air volume flow	4420 m ³ /h

Exhaust gas temperature	376 °C
Exhaust gas volume flow	9850 m ³ /h
Exhaust gas mass flow	5210 kg/h
Exhaust back pressure (min/max)	20/80 mbar

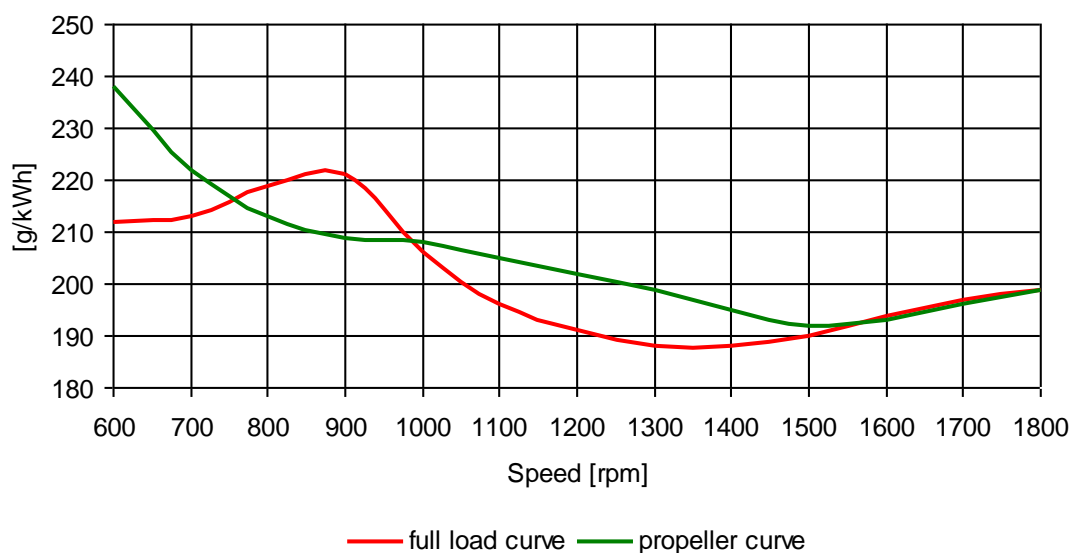
Heat balance ¹

Exhaust gas heat	530 kW
Cooling water heat	500 kW
Intercooler heat	210 kW
Radiation heat	40 kW

Noise emission (sound power) ¹

Engine surface noise (Lwa)	dB(A)
Free exhaust noise (Lwa)	dB(A)

Specific fuel consumption²



< The rated power is based on reference conditions according to ISO 3046-1 (2002) >

< Intake air temperature, max. 45°C | sea water temperature, max. 32°C >

< Barometric pressure 1000 mbar | air humidity 60% >

< Exponent for propeller curve 3 >

< **Engine specifications are subjected to change without prior notice** >

¹ Values at rated power

² Diesel fuel according to DIN EN 590 (tolerance +5% - ISO 3046)

³ Values on propeller curve