



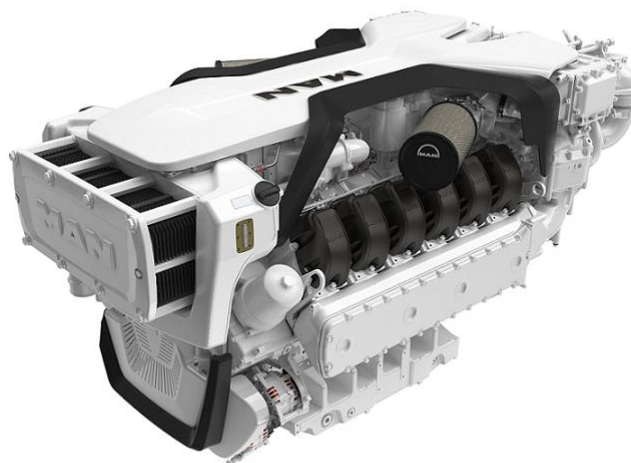
# Technical data sheet

Marine diesel engine  
D3872LE443 (V12X-2000)

17.09.2025  
(Version 1)

## Performance data <sup>1</sup>

|                         |           |       |
|-------------------------|-----------|-------|
| Rated power             | 1471      | kW    |
| Rated power             | 2000      | PS    |
| Speed                   | 2300      | rpm   |
| Bore/Stroke             | 138/165   | mm    |
| Displacement            | 29,62     | liter |
| Rated torque            | 6107      | Nm    |
| Maximum torque          | 6689      | Nm    |
| at speed                | 1200-2100 | rpm   |
| Compression ratio [ε]   | 17,0      | :1    |
| Mean effective pressure | 25,91     | bar   |
| Mean piston speed       | 12,65     | m/s   |



## Consumption data <sup>2</sup>

|  |     |       |
|--|-----|-------|
| Specific fuel consumption <sup>1</sup> | 211 | g/kWh |
| Absolute fuel consumption <sup>1</sup> | 370 | l/h   |
| Lowest fuel consumption <sup>3</sup>   | 196 | 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  |
| Operation profile | Up to 1000 hours per year at a maximum of 20 % of time at full load   average load < 50 %          |
| 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        | Two-stage turbocharger with charge air intercooler and wastegate                                   |
| 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 <sup>3</sup> (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 400 operating hours  |
| Classification    | Engine according to classification requirements available => see MAN Marine Configurator           |

**Exhaust status** IMO Tier II, EPA Tier 3 recreational

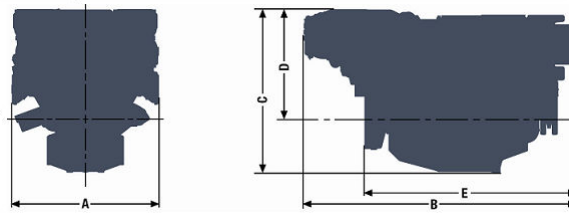
<sup>1</sup> Values at rated power

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

<sup>3</sup> Values on propeller curve

## D3872LE443 (V12X-2000)

|                             |         |
|-----------------------------|---------|
| A - overall width.....      | 1157 mm |
| B - overall length.....     | 2319 mm |
| C - overall height.....     | 1294 mm |
| D - above crank shaft....   | 845 mm  |
| E - length to flywheel..... | 1791 mm |
| Engine weight (dry).....    | 2700 kg |



### Combustion parameters <sup>1</sup>

|                               |            |
|-------------------------------|------------|
| Intake air temperature (max.) | 45 °C      |
| Intake air vacuum (min/max)   | 30/60 mbar |
| Intake air volume flow        | 5780 m³/h  |

|                                 |            |
|---------------------------------|------------|
| Exhaust gas temperature         | 484 °C     |
| Exhaust gas volume flow         | 15100 m³/h |
| Exhaust gas mass flow           | 6850 kg/h  |
| Exhaust back pressure (min/max) | 20/80 mbar |

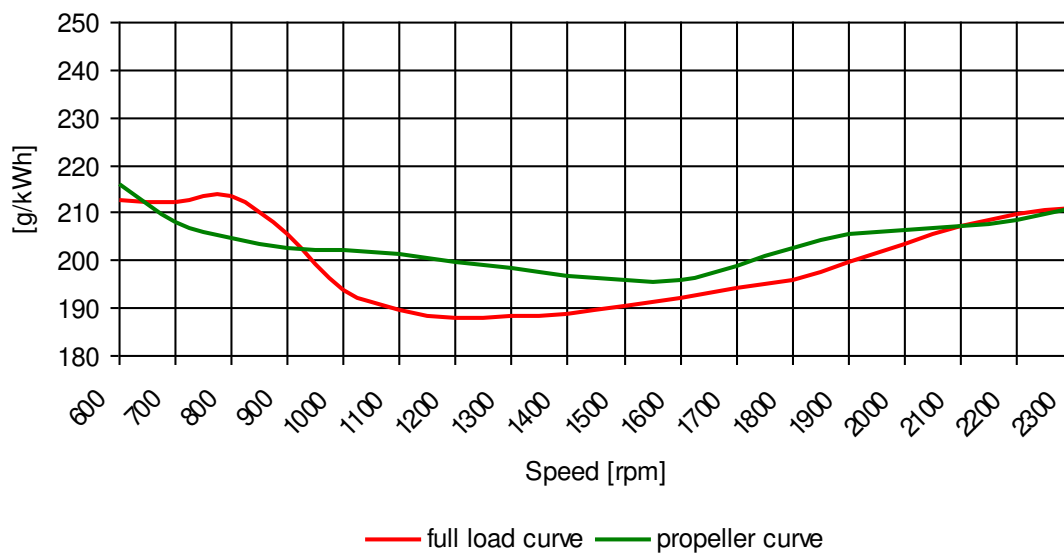
### Heat balance <sup>1</sup>

|                    |        |
|--------------------|--------|
| Exhaust gas heat   | 960 kW |
| Cooling water heat | 900 kW |
| Intercooler heat   | 340 kW |
| Radiation heat     | 42 kW  |

### Noise emission (sound power) <sup>1</sup>

|                            |             |
|----------------------------|-------------|
| Engine surface noise (Lwa) | 128,0 dB(A) |
| Free exhaust noise (Lwa)   | 131,0 dB(A) |

### Specific fuel consumption<sup>2</sup>



< 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 2,5 >

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

<sup>1</sup> Values at rated power

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

<sup>3</sup> Values on propeller curve