



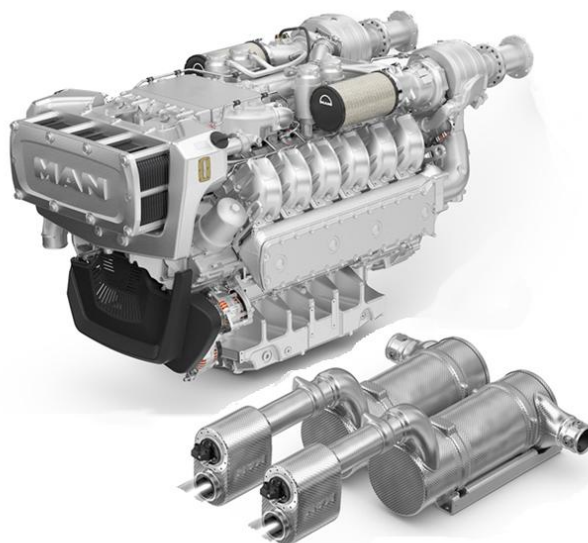
# Technical data sheet

Marine diesel engine  
D3872LE424

17.09.2025  
(Version 1)

## Performance data

|                         |           |       |
|-------------------------|-----------|-------|
| 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   |



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

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

|                                        |     |       |
|----------------------------------------|-----|-------|
| Specific fuel consumption <sup>1</sup> | 199 | g/kWh |
| Absolute fuel consumption <sup>1</sup> | 218 | l/h   |
| Lowest fuel consumption <sup>3</sup>   | 194 | g/kWh |
| Absolute urea consumption <sup>1</sup> | 13  | l/h   |

## 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 diesel with exhaust after-treatment system (SCR), 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 <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 600 operating hours                                                            |
| Classification    | Engine according to classification requirements available => see MAN Marine Configurator           |

**Exhaust status** IMO Tier III, EPA Tier 4 commercial

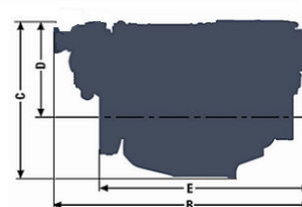
<sup>1</sup> Values at rated power

<sup>2</sup> Diesel fuel according to DIN EN 590 (tolerance +5% - ISO 3046), urea solution 32,5% according to ISO 22241 (tolerance +3%)

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

## D3872LE424

|                                    |         |
|------------------------------------|---------|
| 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 |
| (depending on the scope of supply) |         |



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

|                                                            |            |
|------------------------------------------------------------|------------|
| Intake air temperature (max)                               | 45 °C      |
| Intake air vacuum (min/max)                                | 30/60 mbar |
| Intake air volume flow                                     | 4120 m³/h  |
| Exhaust gas temperature                                    | 420 °C     |
| Exhaust gas volume flow                                    | 9850 m³/h  |
| Exhaust gas mass flow                                      | 4890 kg/h  |
| Exhaust back pressure (min/max) downstream of SCR catalyst | 20/80 mbar |

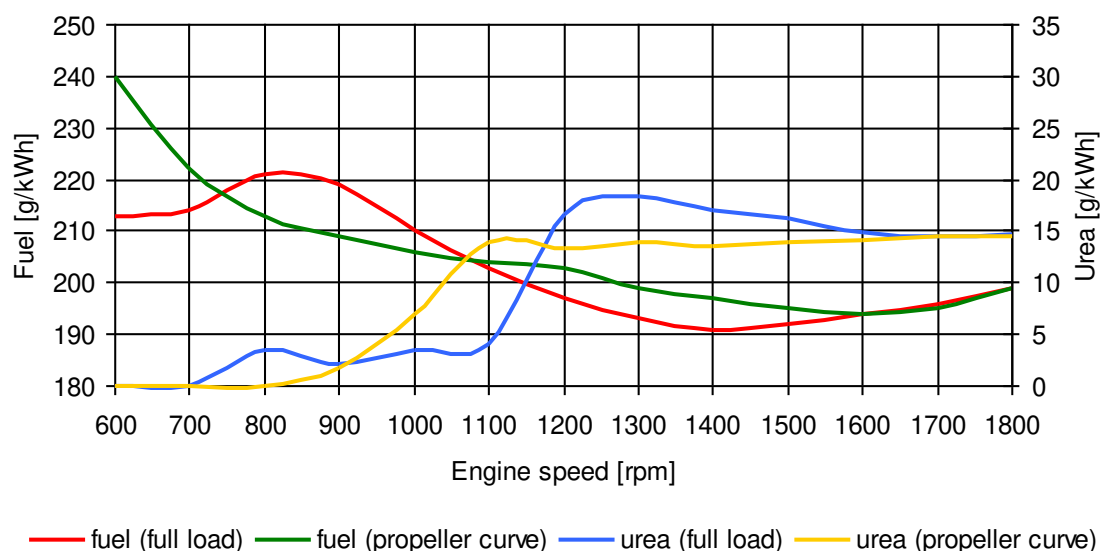
### Heat balance <sup>1</sup>

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

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

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

### Specific 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 3 >

< **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), urea solution 32,5% according to ISO 22241 (tolerance +3%)

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