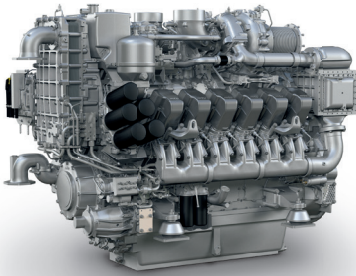




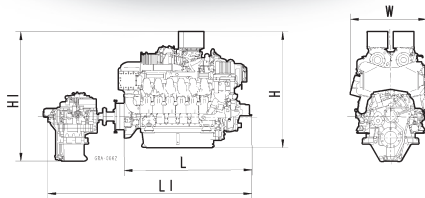
Marine

DIESEL ENGINES 12V 4000 M24S/M34S

for on-board power generation and diesel-electric drives (3A/3B)



| Engine | Dimensions (LxWxH) mm (in) | Mass, dry kg (lbs) |
|-----------|--|--------------------|
| M24S/M34S | 2638 x 1690 x 2071 (103.9 x 66.5 x 81.5) | 7750 (17089) |



Typical applications: e.g. work boats, tugs, barges, ferries, governmental vessels

Optional equipment and finishing shown. Standard may vary.

| Engine type | | 12V 4000 M24S | 12V 4000 M34S |
|------------------------------------|-----------|-------------------|-------------------|
| Rated power ICFN | kW | 1193 | 1398 |
| | (bhp) | (1600) | (1875) |
| Speed | rpm | 1800 | 1800 |
| Frequenz | Hz | 60 | 60 |
| No. of cylinders | | 12 | 12 |
| Bore/stroke | mm (in) | 170/210 (6.7/8.3) | 170/210 (6.7/8.3) |
| Displacement, total | l (cu in) | 57.2 (3490) | 57.2 (3490) |
| Flywheel housing | | SAE 0 | SAE 0 |
| Exhaust optimization ¹⁾ | | IMO II/EPA 3 C | IMO II/EPA 3 C |

1) IMO - International Maritime Organisation (MARPOL)
EPA - US Marine Regulation 40 CFR 1042

| Fuel consumption * | | 12V 4000 M24S | 12V 4000 M34S |
|--------------------|-------------|---------------|---------------|
| at 100% power | g/kWh | 208 | 210 |
| | l/h (gal/h) | 297.8 (78.6) | 352.4 (93.0) |
| at 75% power | g/kWh | 221 | 223 |
| | l/h (gal/h) | 237.3 (62.7) | 499.0 (131.8) |

* Tolerance +5% per ISO 3046, Diesel fuel to DIN EN 590 with a min L.H.V. of 42800kJ/kg (18390 BTU/lb)

| Standard equipment | |
|--------------------------|--|
| Starting system | Electric starter motor 24V, 2 pole |
| Oil system | Gear driven lube oil pump, non switchable oil filter, centrifugal oil filter, lube oil heat exchanger, closed crankcase ventilation, lube oil extraction pump |
| Fuel system | Fuel delivery pump, duplex lube fuel filter with diverter valve, common rail fuel injection system with high-pressure pump, pressure accumulator and electronic fuel injection with cylinder cutout system, jacketed HP fuel lines, flame- proof hose lines, leak-off fuel monitoring, switchable pre-filter with water separator in conjunction with switchable additional secondary filter |
| Cooling system | Gear driven coolant circulation pump, coolant-to-raw water plate core heat exchanger, engine mounted coolant expansion tank, self priming centrifugal raw-water pump, raw-water connection for generator cooling |
| Combustion air system | Dry charge air manifolds, engine coolant temperature-controlled intercooler, turbocharging with 2 water-cooled turbochargers, on-engine seawater-resistant air filters |
| Exhaust system | Triple-walled, liquid-cooled, on-engine exhaust manifolds, 30° discharge elbow, exhaust bellows |
| Mounting system | Rigid engine mounting |
| Auxiliary PTO | Charging generator, 120A, 28V, 2 pole |
| Engine management system | Engine control and monitoring system (ADEC); engine interface module - EIM, engine mounted |
| Engine safety system | The scope of delivery for the engine fulfils SOLAS requirements for admissible surface temperature and shielding of fuel and lube oil lines |

| Optional equipment | |
|--------------------------|---|
| Starting system | Coolant preheating system; air starter |
| Oil system | Lube oil priming system, oil level monitoring, automatic oil replenishment system with basic scope of monitoring, switchable oil filter with extended scope of monitoring, automatic oil filter |
| Fuel system | Fuel conditioning system with water separator |
| Cooling system | Engine version for separate heat exchanger |
| Combustion air system | Intake air silencer |
| Exhaust system | 90° elbow for horizontal discharge |
| Engine mounting | Resilient engine mounting |
| Auxiliary PTO | Bilgepump, PTOs at free end of engine |
| Engine management system | Expansion in compliance with extended scope of monitoring (individual exhaust temperature monitoring) |
| Classification | ABS, BV, DNV, GL, LR including necessary extensions to scope of supply |

Reference conditions:

- > Intake air temperature 25°C/Sea water temperature 25°C
- > Barometric pressure 1000 mbar

Specifications are subject to change without notice.
All dimensions are approximate, for complete information refer to installations drawing. For further information consult your MTU distributor/dealer.