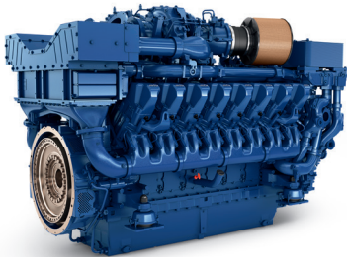




## Marine

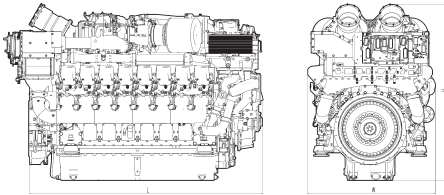
# DIESEL ENGINES 12/16/20V 4000 M05

for on-board power generation and diesel-electric drives in continuous operation (3A/3B) - 50 Hz



Engine	Dimensions (LxWxH) mm (in)	Mass, dry kg (lbs)
12V	2750 x 1793 x 2070 (108 x 71 x 81)	8000 (17637)
16V	3190 x 1550 x 2070 (126 x 61 x 81)	9460 (20856)
20V	3710 x 1550 x 2070 (146 x 61 x 81)	11600 (25575)

All dimensions are approximate, for complete information refer to the installation drawing.



Engine Model		12V 4000 M05		16V 4000 M05		20V 4000 M05	
Rated power ICFN	kW	1380	1560	1840	2080	2300	2600
	(bhp)	(1851)	(2092)	(2467)	(2789)	(3084)	(3487)
Speed	rpm	1500		1500		1500	
No. of cylinders		12		16		20	
Displacement	l (cu in)	57.2 (3491)		76.3 (4656)		95.4 (5822)	
Emission legislation*		IMO II/IMO III** EPA 4**		IMO II/IMO III** EPA 4**		IMO II/IMO III** EPA 4**	

\* IMO - International Maritime Organisation (MARPOL); EPA - US Marine Regulation 40 CFR 1042 \*\* IMO III with SCR

<b>Standard Equipment</b>	
Starting system	Electric starter motor 24V, 2 pole
Oil system	Gear driven lube oil pump, switchable oil filter, centrifugal oil filter, lube oil heat exchanger, closed crankcase ventilation
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	Separate high and low temperature cooling circuit (engine version for separate heat exchanger), gear driven coolant circulation pumps
Combustion air system	Dry charge air manifolds, engine coolant temperature-controlled intercooler, turbocharging with 2 water-cooled turbochargers, on-engine seawater-resistant air filters, intake air silencer (16V/20V)
Exhaust system	Triple-walled, liquid-cooled, on-engine exhaust manifolds, 30° (upwards against horizontal) elbows discharge, exhaust bellow
Mounting system	Resilient 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, expansion in compliance with extended scope of monitoring*
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
<b>Optional Equipment</b>	
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, automatic oil filter, lube oil extraction pump
Fuel system	Fuel conditioning system with water separator
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	Intake air silencer (12V)
Exhaust system	90° elbow for horizontal discharge
Engine mounting	Rigid 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

\* only above 2250 kW

> 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 installation drawing. For further information consult your MTU distributor.