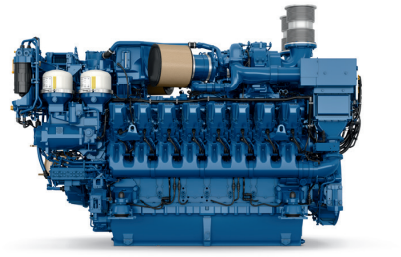
Marine

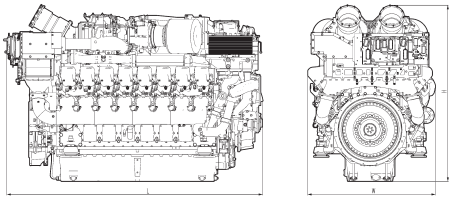
DIESEL ENGINES 12/16/20V 4000 M05

for on-board power generation and diesel-electric drives in continuous operation (3A/3B) - 60 Hz



Engine	Dimensions (LxWxH) mm (in)	Mass, dry kg (lbs)
12V	2710 x 1794 x 2072 (107 x 71 x 81)	8000 (17637)
16V	3180 x 1573 x 2072 (125 x 62 x 81)	9460 (20856)
20V	3696 x 1573 x 2072 (146 x 62 x 81)	11180 (24648)

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



Optional equipment and finishing shown. Standard may vary.

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

Engine model		12V 4000 M05		16V 4000 M05		20V 4000 M05	
Rated power ICFN	kW	1680	1920	2240	2560	2800	3200
	(bhp)	(2253)	(2575)	(3004)	(3433)	(3755)	(4291)
Speed	rpm	1800		1800		1800	
No. of cylinders		12		16		20	
Displacement	l (cu in)	57.2 (3491)		76.3 (4656)		95.4 (5822)	
Emission legislation [1]		IMO II/IMO III [2]		IMO II/IMO III [2]		IMO II/IMO III [2]	

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

A Rolls-Royce solution

Standard equipment	
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, lube oil priming system
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
Exhaust system	Triple-walled, liquid-cooled, on-engine exhaust manifolds, 30° (upwards against horizontal) elbows discharge, exhaust bellow
Mounting system	Resilient engine mounting
Engine management system	Engine control and monitoring system (ADEC); engine interface module - EIM, engine mounted, ***mtu*** smart injection
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	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, fuel booster pump
Cooling system	Secondary coolant pump
Combustion air system	Air filters for external installation
Exhaust system	90° elbow for horizontal discharge
Auxiliary PTO	PTOs at free end of engine, charging generator, 140 A, 28 V, 2 pole
Engine management system	Expansion in compliance with extended scope of monitoring (crank case monitoring and various monitoring systems)
Classification	ABS, BV, DNV-GL, CCS, NK (JG), KR, RS, RINA, CR, TL, LR including necessary extensions to scope of supply

> Intake air 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.

Subject to change. | 32310471 | Edition 01/23 | BMC 2023-06.