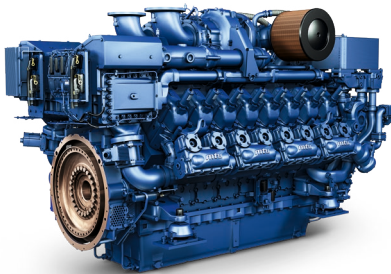




Marine

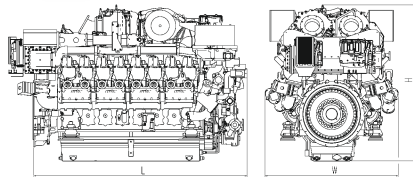
GAS ENGINE SERIES 4000 M05-N

for vessels with unrestricted continuous operation (1A)



Engine	Dimensions (LxWxH) mm (in)	Mass, dry kg (lbs)
8V 4000 M55RN/M65-N*	2050 x 1820 x 2100 (80.7 x 71.7 x 82.7)	5900 (13007)
16V 4000 M55RN/ M55-N*/M65-N	3233 x 1820 x 2100 (127.3 x 71.7 x 82.7)	9560 (21076)

*on request



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

Optional equipment and finishing shown. Standard may vary.

Engine type		8V 4000 M55RN/M65-N*	16V 4000 M55RN/M65RN*/M65-N
Rated power ICFN	kW	746-1000	1492-2000
	(bhp)	1000-1341	2000-2682
Speed	rpm	1600-1800	1600-1800
Peak torque Nm		6161	12322
Dry weight kg (lbs)		5900 (13007)	9560 (21076)
No. of cylinders		8	16
Displacement	l (cu in)	38.2 (2331.1)	76.3 (4656.1)
Emission legislation*		IMO III / EPA 4* / EU Stage V*	IMO III / EPA 4* / EU Stage V*

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

Fuel consumption *	8V 4000 M65-N	16V 4000 M65-N
Consumption	9561 kJ/kWh at nominal power = 223g/kWh Diesel equivalent LHV of 42800kJ/kg 410.3 (108.3)	

* Fuel consumption, according DIN/ISO 3046; tolerance at actual state of development +/- 10%

Standard equipment	
Starting system	Electric starter motor 24V, 2 pole
Oil system	Gear driven lube oil pump, switchable oil filter, lube oil heat exchanger, pump for lube oil extraction, closed crankcase ventilation, oil level monitoring
Cooling system	Separate high and low temperature cooling circuit, engine version for separate heat exchanger, gear driven coolant circulation pumps
Combustion air system	Engine coolant temperature-controlled intercooler, turbocharging with 2 water-cooled turbochargers, on-engine seawater-resistant air filters, 30° discharge elbow
Fuel system	Flexible positionable Gas Regulating Unit aligned with engine safety concept, containing Gas-pressure regulating valve in accordance with engine requirements, monitored gas-filter, Doubleblock&Bleed valves. Tight secondary enclosure around fuel-system complying with gas-safe machinery concept, applicable for overpressure nitrogen and air ventilation (engine only), additional on-engine gas filter, multi-point injection valve on each cylinder, modular built common rail system on each cylinder bank, single fuel supply interface on engine connected via flexible hose, flame arrestors in charge-air manifold
Engine management system	Engine control and monitoring system (ADEC); engine interface module - EIM, engine mounted
Mounting system	Rigid engine mounting
Engine safety system	The scope of delivery for the engine fulfils the requirements to be used in a gas safe engine room design and SOLAS requirements for admissible temperature
Power transmission	Torsional resilient and off-set compensating coupling
Optional equipment	
Starting system	Coolant preheating system; air starter
Oil system	Lube oil priming system, automatic oil replenishment system
Combustion air system	Intake air silencer
Exhaust system	90° discharge elbow
Auxiliary PTO	Secondary coolant pump, PTOs at free end of engine
Engine management system	Expansion in compliance with extended scope of monitoring (crankcase monitoring)
Gearbox option	Various reserve reduction gearbox models, elec. actuated, gearbox mounts, PTO for hydraulic pump at driving shaft or at mediate shaft, trolling, trailing pump, propeller shaft flange Classification ABS, BV, DNV/GL, LR including necessary extensions to scope of supply
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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 installation drawing. For further information consult your MTU distributor/dealer.