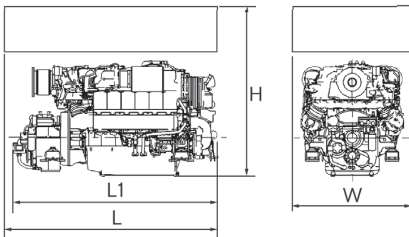
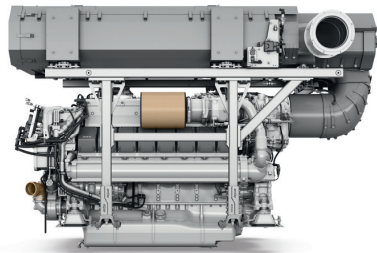




## Marine

# 12V/16V 2000 M87/M97/M97L

for fast vessels with low load factors (1DS)



Optional equipment and finishing shown. Standard may vary.

Typical applications: fast yachts, fast patrolboats, police crafts and fire-fighting vessels

Engine and SCR	Dimensions (LxWxH) mm (in)	Mass, dry kg (lbs)
12V <sup>1)</sup>	3142 x 1648 x 2174 (123.7 x 64.8 x 85.6)	TBD
12V <sup>2)</sup>	3142 x 1648 x 2174 (123.7 x 64.8 x 85.6)	TBD
16V	3338 x 1648 x 2174 (131.4 x 64.8 x 85.6)	5020 (11067)
Engine with gearbox type <sup>3)</sup>	Dimensions (L <sub>x</sub> WxH) mm (in)	Mass, dry kg (lbs)
12V - ZF 2075 <sup>1)</sup>	2516 x 1293 x 1414 (99.1 x 50.9 x 55.7)	TBD
12V - ZF 2075 <sup>2)</sup>	2551 x 1293 x 1414 (100.4 x 50.9 x 55.7)	TBD
12V - ZF 3050 <sup>1)</sup>	2632 x 1293 x 1414 (103,6 x 50.9 x 55.7)	TBD
12V - ZF 3050 <sup>2)</sup>	2667 x 1293 x 1414 (105 x 50.9 x 55.7)	TBD
16V - ZF 3070	3078 x 1293 x 1414 (121.2 x 50.9 x 55.7)	5699 (12564)

1) 12V SAE 1 - fly wheel housing - standard

2) 12V SAE 0 - fly wheel housing - option

3) gear ratio on request

Engine type		12V 2000 M87	12V 2000 M97	12V 2000 M97L	16V 2000 M87	16V 2000 M97	16V 2000 M97L
Rated power ICFN	kW	1268	1342	1432	1630	1790	1939
	(bhp)	(1700)	(1800)	(1920)	(2186)	(2400)	(2600)
Speed	rpm	2450			2450		
No. of cylinders		12			16		
Bore/stroke	mm (in)	135/156 (5.3/6.1)			135/156 (5.3/6.1)		
Displacement, total	l (cu in)	26.8 (1635)			35.7 (2179)		
Flywheel housing		SAE 1, SAE 0			SAE 0		
Gearbox type, standard		ZF 2075 / ZF 3050			ZF 3070		
Optimization of exhaust emissions *		IMO III / EPA 3 recreational			IMO III / EPA 3 recreational		
Solas compliance		Yes			Yes		

\* IMO - International Maritime Organisation, EPA - US Marine Directive 40 CFR 94, EU RCD - EU Marine Directive for recreational crafts

Standard equipment	
Starting system	Electric starter 24 V
Auxiliary PTO	Alternator, 140A, 28V, 2 pole
Oil system	Gear driven lube oil pump, lube-oil duplex filter doublestage, lube-oil heat exchanger, handpump for oil extraction
Fuel system	Fuel feed pump, fuel hand pump, fuel pre-filter, fuel main filter, on-engine fuel cooler, HP fuel pump, jacketed HP fuel lines, injection nozzles (common rail system) flame proof hose lines, leak-off collector
Cooling system	Coolant-to-raw water plate core heat exchanger, self priming centrifugal raw water pump, gear driven coolant circulation pump
Combustion air system	Sequential turbocharging with 3 exhaust-gas turbochargers, on-engine intake air filters
Exhaust system	Triple-walled, liquid-cooled, on-engine exhaust manifolds, single centrally located exhaust outlet, 1 exhaust bellows horizontal discharge
Mounting system	Resilient mounts at free end
Engine management system	Engine control and monitoring system (ADEC), engine interface module (EIM)
Exhaust gas aftertreatment (EGAT)	Selective Catalytic Reduction (SCR), monitoring and controls, urea dosing units, urea supply modules, hose lines, cabling, SOLAS thermal insulation, vertical mounting, exhaust below after SCR.

Optional equipment	
Starting system	Air starter*
Auxiliary PTO	Alternator, 190A, 28V, 2 pole, bilgepump, on-engine PTOs
Oil system	Oil replenishment system, diverter valve for duplex filter
Fuel system	Duplex fuel pre-filter, diverter valve for fuel filter, monitoring fuel leakage
Cooling system	Coolant preheating system freestanding or engine mounted, integr. seawater gearbox piping
Exhaust system	90° exhaust bellow discharge rotatable
Mounting system	Resilient mounts at driving end
Engine management system	In compliance with classification society regulations
Monitoring/control system	BlueVision NewGeneration
Power transmission	Torsionally resilient coupling
Gearbox options	Reverse reduction gearbox, el. actuated, gearbox mounts, trolling mode for dead-slow propulsion, free auxiliary PTO, hydraulic pump drives
Exhaust gas aftertreatment (EGAT)	Heat minimized thermal insulation, exhaust connection after SCR with 90° elbow, urea level sensor for shipside tank (only optional for IMO engines).

\*only applies to 12V and 16V cylinder configurations

Reference conditions:

- > Power definition according ISO 3046
- > Intake air temperature 25°C/sea water temperature 25°C
- > Intake air depression 15 mbar/exhaust back pressure 30 mbar
- > Barometric pressure 1000 mbar
- > Power reduction at 45°C/32°C: none

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.