

### Remote Control Panel

Remote control panel was designed to include, in only one single panel, all switches, control devices and protection devices. Components are the following :

- Engine cut-off module for automatic stop in case of high water temperature, low oil pressure and high alternator temperature.
- Hour-meter.
- Start-stop button.
- Breaker for protection against overload and short circuit.
- Thermal switch for D.C. electric circuit.

### Engine

- Easy access for maintenance to feeding system, lubrication, sea/water pump and air filter.
- Easy access to Oil and fuel filters.
- Safety stop in case of low oil pressure.
- Safety stop in case of high water/exhaust gas temperature.

### Alternator

- Synchronous, 4 poles, self-excited with AVR.
- Rotor and stator coated with epoxy resin against external agents.
- Rotor dynamically balanced.
- Insulation class H.

## MARINER

### 1600 A

15.3 kW

50 Hz

## MARINER

### 1900 A

18.4 kW

60 Hz

Engine	50 Hz	60 Hz
Model	Yanmar 4TNV88	
Type	Diesel 4 stroke	
Cylinders (nr.)	4	
Cylinder block material	Cast iron	
Bore (mm. - in.)	88 - 3.5	
Stroke (mm. - in.)	90 - 3.6	
Displacement (cc. - CID)	2190 - 133.4	
Power (hp)	24.5	29.4
RPM	1500	1800
Combustion system	Direct injection	
Engine head material	Cast iron	
Speed governor	Centrifugal mechanical	
Lubrication system	Forced	
Oil sump capacity with filter (lt. - US qt)	7.4 - 7.8	
Engine stop system	Stop solenoid	
Fuel pump	Electronic	
Fuel pump discharge (cm. - ft)	70 - 2.3	
Max fuel consumption (l/h-gal/h)	5.6 - 1.4	6.7 - 1.9
Starting battery (Ah-V)	80 - 12	
Battery charger (Ah-V)	40 - 12	
Starter (kW-V)	1.2 - 12	
Max. inclination	30°	
Water pump flow (l/min. - gal/min.)	25 - 6.6	28 - 7.4

Alternator	50 Hz	60 Hz
Type	Synchronous, 4-poles, brushless self-excited	
Cooling	Air	
Voltage (V)	115 - 230	120 - 240
Frequency (Hz)	50	60
Nominal current (A)	133 - 66.5	200 - 100
Max. power (kW)	15.3	18.4
Continuous power (kW)	13.9	16.7
Power factor ( cos Φ )	1	
Insulating class	H	
Voltage stability	±2%	
Frequency stability	±5%	

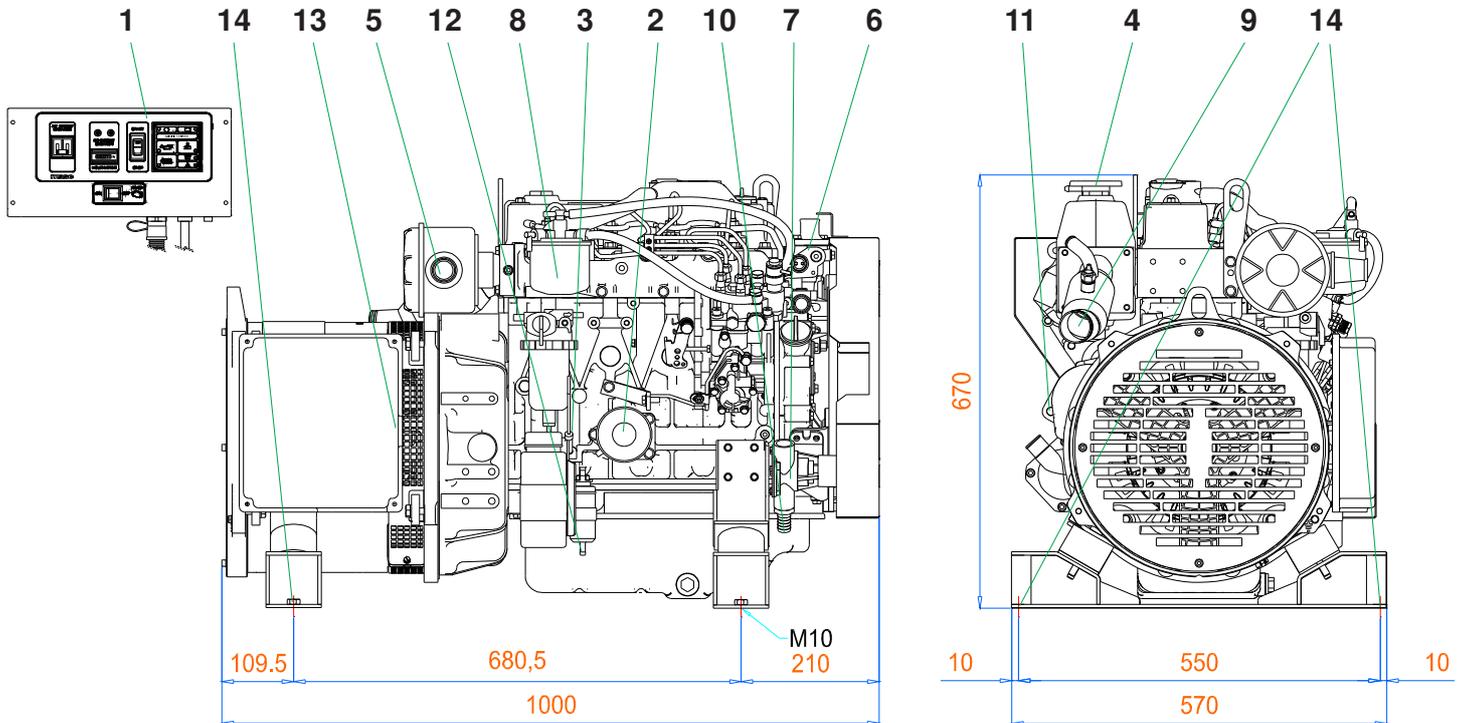
### Cooling system

The cooling of the engine is based on a closed inner flow of coolant. The system is based on a cupronickel heat exchanger seawater/coolant type, where the thermal exchange occurs between coolant and seawater. Two separate pumps contribute to the flow of the coolant and the sea water.

1600 A 50 Hz • 1900 A 60 Hz

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	50 Hz	60Hz
Dimension (Length x Width x Height.)	1000x570x670 mm (39.3x22.4x26.4 in)	
Weight	550 kg (1211 lb)	



- 1 - Control panel
- 2 - Engine oil filter cartridge
- 3 - Oil dipstick
- 4 - Engine oil cap
- 5 - Air filter
- 6 - Closed circuit water pump
- 7 - Seawater pump

- 8 - Fuel filter
- 9 - Seawater exhaust connection (ø 50mm)
- 10 - Seawater inlet (ø 16mm)
- 11 - Battery connection
- 12 - Fuel tank connection (ø 8mm)
- 13 - Electric cables outlet
- 14 - Fixing stirrups

## FITTINGS

EXHAUST COMPONENTS KIT  
SIPHON BREAK  
WATER-GAS SEPARATOR KIT  
STARTING REMOTE CONTROL PANEL WITH INSTRUMENTS

*This drawing is only a reference and is not indicatly for the installation. For more information, you may contact your local dealer or **mase generators S.p.A.***

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GENERATORS

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