



ZEUS thermoelectric generators.
Clean energy at your fingertips.
Anywhere and anytime.



Mobil Tech is an Italian company ready to meet the challenges of a constantly evolving market. Its mission is to create technologically advanced products able to make life in the open air simpler and more comfortable, in complete harmony with nature, even in the most isolated and extreme environments.



A new, practical, intelligent and eco-friendly way for living the nature.



Innovations and advantages of ZEUS thermoelectric generator: the answer to your need of energy sources, even in the most extreme contexts

Always available

ZEUS takes fuel directly from the vehicle's or boat's tank.

Silent

It produces less than 30dB(A) (less than 32dB(A) for models 80 and 150) at 7m: for a peaceful sleep even when the generator is running.

Low emissions

ZEUS can be used without disturbing the other vehicles or the nearby boats.

Smart

It stops working when batteries are charged, avoiding fuel wasting.

Easy to use

The touch screen display allows to control all the activities in just one touch.

Automatic mode

ZEUS manages the batteries autonomously, without any user intervention.

Resistant

It is protected against reverse polarity, overload, low battery or overheating.

Easy update

The software of the control unit can be easily updated via MicroSD card.

Optimal combustion

The integrated atmospheric pressure sensor adapts the combustion to changes in altitude, climatic conditions and atmospheric pressure, up to 3000 meters above sea level.

Charge controller features

MPPT technology (Maximum Power Point Tracker)

Constant control of batteries with different charging curves for each type

Battery type selection: Pb/Agm/Gel and LiFePO₄, with BMS (Battery Management System)

Protection against reverse polarity, low battery, overload and overheating

Anywhere clean energy is needed, you can count on a ZEUS generator:

in motorhome, in boat, in special applications, with low emissions and maximum silence, ZEUS makes available an electric energy source anywhere and anytime.



in motorhome



in boat



for special applications

How does ZEUS work?

ZEUS takes fuel directly from the vehicle's or boat's tank and charges batteries respecting the surrounding environment. The ZEUS thermoelectric generator range of Mobil Tech offers an intelligent and technological solution which combines total autonomy and sustainability, using the **Seebeck** effect, discovered in 1821 and still used by NASA to supply energy to space probes and lunar rovers.



The Seebeck effect



Electricity is produced by a temperature difference between two sides of a special module composed by bismuth telluride. Seebeck discovered that between two metals (or between two extremes of a metal element), under different temperatures, electricity is produced. To create the temperature difference needed to produce the Seebeck effect, ZEUS generator uses a specific burner powered by vehicle's fuel on one side

and a liquid cooling, on the other.

Starting from this principle, Mobil Tech has developed a reliable generator that needs minimum maintenance and has a low environmental impact in terms of noise and emissions. ZEUS range can be used in any applications where energy is needed but power grid is not available.



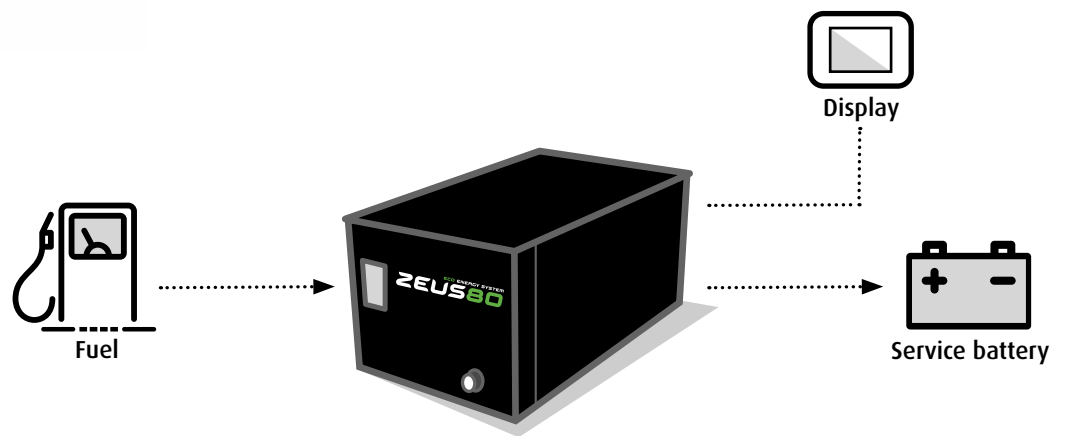
High performance, silence, maximum eco-friendliness, reduced fuel consumption

ZEUS150 and ZEUS200 can be integrated with other clean energy sources, like sun and wind. They select automatically the best energy source, giving priority to renewable and free energy for a charge that respects environment and reduces fossil fuel consumption.

ECO ENERGY SYSTEM
ZEUS80

ZEUS80 is the silent generator for motorhomes, compact but with great performances. Easy to install, even on small vehicles.

- 80W of typical power delivered silently
- Charging capacity of 160A/day
- Automatic and manual management of service batteries
- Management of all types of 12V batteries with different charging curves: Pb, Gel, Agm, LiFePO4
- 2.8" touch screen display
- Control and management of the system in just one touch
- Use of fuel present in the vehicle's tank
- Operation even at low temperatures



How does ZEUS80 work?

The ZEUS80 thermoelectric generator has two operating modes, for use in any situation: ECO and FULL.

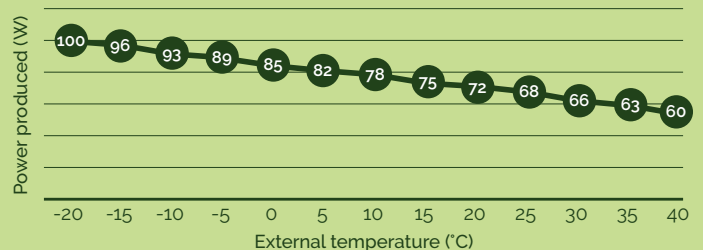
ECO: this function optimises the energy production, calibrating consumption and noise in every situation.



FULL: it offers maximum energy production for charging the batteries quickly.



The cooling unit is separated by the generator to simplify the installation (360 x 175 x 260 mm).



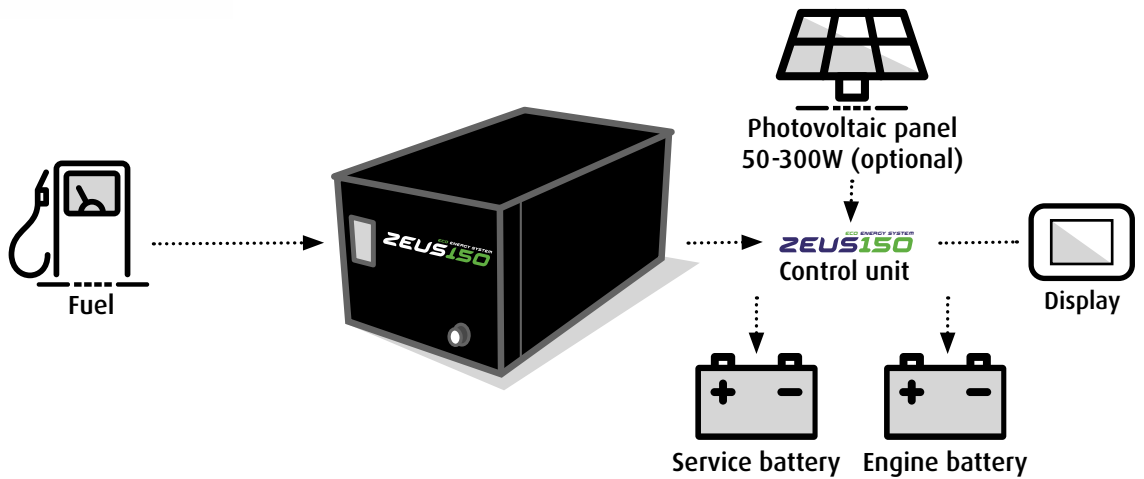
The graph shows the energy production of ZEUS80 based on external temperature; altitude and humidity may change these values.

ZEUS150

ECO ENERGY SYSTEM

A true pioneer in the field of thermoelectric generators for motorhomes: 150W of power and a charging capacity of 300A/day in absolute silence.

- 150W of typical power delivered silently
- Charging capacity of 300 A/day
- Automatic and manual management of service and engine batteries
- Management of all types of 12/24V batteries with different charging curves: Pb, Gel, Agm, LiFePO4
- 4.3" touch screen display (compatible with satellite antennas of Mobilsat Pentagonal range)
- Control and management of the system in just one touch
- Use of fuel present in the vehicle's tank
- Operation even at low temperatures
- Autonomous management of photovoltaic panels, selecting the most eco-friendly and lower-cost energy source



How does ZEUS150 work?

ZEUS150 is characterized by different operating modes, allowing it to be used in any situation.

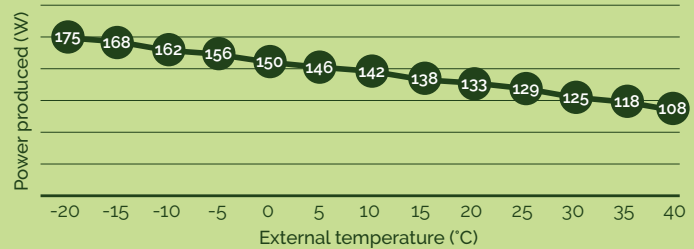
SILENT: this function optimises the operation, keeping background noise to a minimum and making the generator very quiet.



ECO: it optimises energy production, calibrating consumption and noise levels in every situation.



FULL: it offers maximum energy production to charge batteries quickly.



The cooling unit is separated by the generator to simplify the installation (526 x 175 x 260 mm).

The graph shows the energy production of ZEU150 based on external temperature; altitude and humidity may change these values.

Easy installation

ZEUS80 and ZEUS150 thermoelectric generators are installed in fixed mode under the vehicle, without structurally changing the shape of the vehicle and without taking up useful space inside the compartment; ZEUS80 and ZEUS150 can be installed even on small vehicles.

ZEUS150 integration with photovoltaic panels

The ZEUS150 thermoelectric generator can be integrated with a photovoltaic panel (optional), to create a system that automatically controls and charges the vehicle's batteries. The ZEUS150 control unit automatically selects the best energy source to use, giving priority to free energy deriving from photovoltaic panels, thus creating an eco-friendly recharging method and minimising fossil fuel consumption.

Main supported utilities

ZEUS generators, both for recreational vehicles and for boats, are able to support the following utilities.



	ZEUS80	ZEUS150
TRIVALENT FRIDGE	Yes	Yes
COMPRESSOR FRIDGE	No	Yes
GAS HEATING	Yes	Yes
DIESEL HEATING	Yes	Yes
LIGHTING	Yes	Yes
TV	Yes	Yes
COFFEE MACHINE	No	Yes*
MICROWAVE	No	Yes*
AIR CONDITIONING	No	Yes*

**With the use of a time-limited inverter and supported by a suitable battery pack.*



Esteemed consumptions for a 16 meters sailing boat

	ZEUS200
FRIDGE	Yes
MICROWAVE	Yes*
COFFEE MACHINE	Yes*
HEATING + HOT WATER HEATER	Yes
CELL PHONE REPEATER	Yes
GPS	Yes
TRANSCEIVER	Yes
BOW THRUSTER	Yes
ANCHOR	Yes
MARINE TOILET	Yes
WATERMAKER (12V with 50 L/h)	Yes

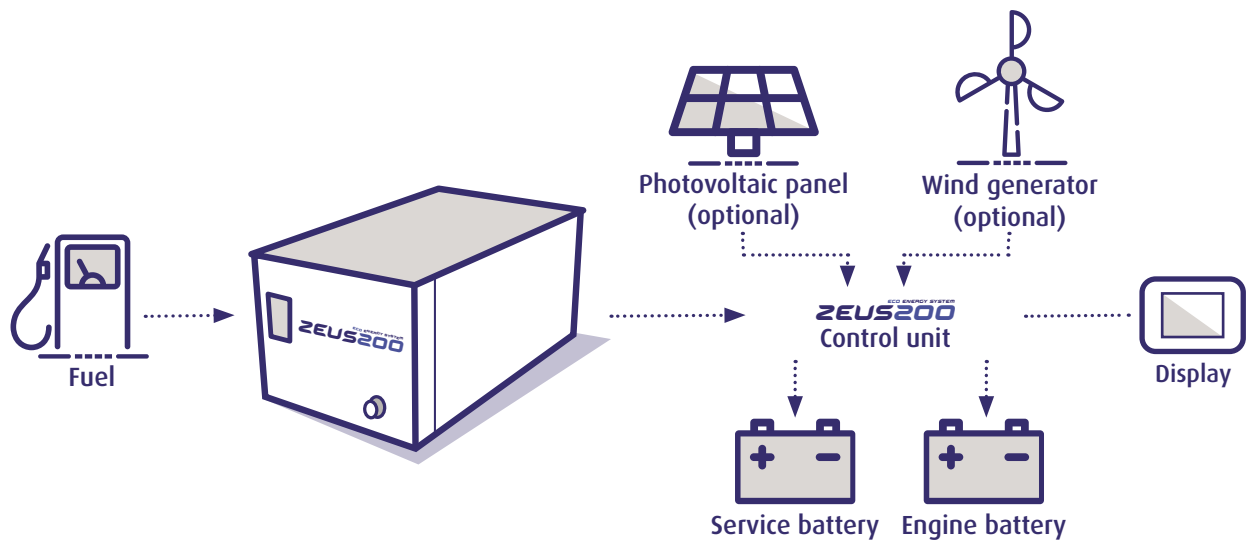


ECO ENERGY SYSTEM ZEUS200

The innovative thermoelectric generator designed for the nautical sector is the perfect solution for on-board energy necessities, in total respect of the surrounding environment.

- 200W of typical power delivered silently
- Charging capacity of 400 A/day
- Automatic and manual management of service and engine batteries
- Management of all types of 12/24V batteries with different charging curves: Pb, Gel, Agm, LiFePO₄
- 4.3" touch screen display
- Control and management of the system in just one touch
- Use of fuel present in the boat's tank
- Operation even at low temperatures
- Autonomous management of photovoltaic panels or wind generators, selecting the most eco-friendly and lower-cost energy source

ZEUS200 is used to automatically keep charged the batteries available on board. It's possible to power both on-board instruments and small devices (also at 230V via inverter) and watermakers. Small and medium-sized boats can use ZEUS200 as the only energy supply system, while the larger ones as an auxiliary system to be used during the night, as energy maintenance in absolute silence.



How does ZEUS200 work?

Current generation, produced by the Seebeck effect, is linked to the temperature difference created between the two sides of a specific module present inside ZEUS200.

In nautical application, the thermal delta is created by a small diesel burner, for the hot side, and a heat exchanger, for the cold side. In this case, cooling unit is integrated in the generator.

Installation

ZEUS200 thermoelectric generator is installed in fixed mode inside the boat, without occupying any useful space within the living area. Installation can also be carried out on small boats.

Integration with photovoltaic panel or wind generator

ZEUS200 thermoelectric generator can be integrated with a photovoltaic module or with a wind generator (optional) to create an automatic system that controls and manages the boat batteries.

The control unit of ZEUS200 selects automatically the best energy source, giving priority to free energy deriving from photovoltaic panels and wind generator. Batteries will always be charged, respecting environment and reducing fossil fuel consumption.

Technical characteristics of ZEUS range:



	ZEUS80	ZEUS150	ZEUS200
TYPICAL POWER	80W	150W	200W
GENERATOR DIMENSIONS AND WEIGHT	490 x 330 x 265 mm 25 Kg	550 x 330 x 265 mm 28.9 Kg	670 x 330 x 305 mm 36.5 Kg
COOLING UNIT DIMENSIONS AND WEIGHT	360 x 175 x 260 mm 3.9 Kg	526 x 175 x 260 mm 5.9 Kg	Integrated in the generator
FUEL CONSUMPTION	0.2 - 0.4 l/h	0.2 - 0.6 l/h	0.2 - 0.6 l/h
DISPLAY DIMENSIONS	2.8"	4.3"	4.3"
PHOTOVOLTAIC PANEL MANAGEMENT	No	Yes	Yes
ENGINE BATTERY MANAGEMENT	No	Yes	Yes
OPERATING MODES	Eco, Full	Silent, Eco, Full	Full
COMPATIBILITY WITH MOBILSAT ANTENNA	No	Yes	No



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