

WINDKINETIC POLAR CONTROLLER/CHARGER (SOLAR AND WIND) 100% Made in Italy

+ OFF GRID SYSTEM BALANCING SOFTWARE



The **WindKinetic Polar controller** is the most advanced hybrid controller designed for small scale **solar/wind hybrid systems** used for battery charging applications. It includes a real **wind turbine controller** that allow full protection of the system and a full **MPPT battery charging system**. It is the unique controller on the market that consume only 0,02W for self function. A fully programmable load controller for street light application and others. A wifi connection to control/program the system in all its parameters with a free **Windkinetic software**. IP 68 enclosure for weather protection. The controller is designed to consume close to 0 energy for its operations.

Our charge controller is designed to work with all type of batteries including LiFePo4. All charging limits are **fully customizable**.

The **WindKinetic solar/wind hybrid** controller/charger is designed for small scale wind turbines and small-scale wind solar hybrid systems used for off shore or on shore battery charging applications. The controller can control a wind turbine or a wind turbine and a solar panel at the same time and charge batteries with wind and solar energy optimizing the output at the top. It has an IP 68 rated enclosure for weather protection and works on the principle of Maximum Power Point Tracking (MPPT) for efficient operation.

The **WindKinetic controller** works exactly like as a big wind turbine controller, it will slow down the turbine when turbine RPMs exceed a preset level (programmable) and will stop the turbine when the RPMs are exceeded to often (programmable), turbine will also stop its operation if battery are at full charge state (Voltage programmable), as optional the controller can be equipped with an anemometer and the turbine can also be stopped if wind exceed a certain level (programmable).

Solar charging and **wind charging** uses MPPT technology to increase energy production.

The Battery charging parameters are fully customizable to allow the charging of any type of batteries, standard settings are preconfigured in the software for batteries: LiFePo4, AGM, GEL.

The circuit board has a built in load controller to allow a full control of the load, very useful for street light or outdoor applications.

All the OFF Grid system parameters can be easily monitored/controlled through a dedicated proprietary software and include a Wireless connection.



www.wind-kinetic.com



Product features:

- Professional Turbine controller
- Anemometer input
- Maximum Power Point Tracking (MPPT) solar/wind
- Multistage charging technology
- Fully programmable load connection and disconnection depending on battery state of charge
- Wide range of working temperatures
- Wind turbine protection in strong wind with built in automatic braking system
- IP 68 enclosure protection
- Wireless connectivity
- Control software
- External water proof dump load

Electronic protection function:

- Overcharge protection
- Deep discharge protection
- Reverse polarity protection of load, module and battery
- Fully programmable battery state of charge

Automatic electronic fuse:

- Short circuit protection of load and circuit board
- Battery overvoltage shutdown
- Overheating and overload protection
- Turbine over speed control
- Turbine strong wind control

Certificates:

- Compliant with European Standards (CE)
- RoHS compliant
- Designed and manufactured in Italy
- Electromagnetic compatibility (EMC) tested



Technical Data	Specifications
Rated battery voltage	12-24 V
Rated wind turbine power	200 W
Rated solar power	200 W
Wind turbine maximum input current	20 A
Solar maximum input current	20 A
Battery over discharge protection voltage	fully programmable
Self-consumption	0,02 Watt
Turbine control	RPM control/ wind speed control
Working temperature	-40 °C +60 °C
Communication mode standard	WiFi
Controller setting	Programmable trough software (WiFi)
Load control	timer, dusk to down, others
Power tracking	MPPT
Enclosure protection	IP 68
Weight	Approx. 100g
Dimensions	160mm x 160mm x 70mm
Connectivity	Wireless 2.4 Ghz
Battery type	LiFePo4, AGM, GEL

NB: Our charge controller is designed to work with any type of battery. All parameters are fully programmable.