

İSTA Breeze
MADE IN
TURKEY

**NEW GENERATION
650W HYBRID
WIND TURBINE CHARGE CONTROLLER
USER' S MANUEL**



CE



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ENGLISH

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WARNING :

The controller is just for battery charging. It can only directly connect to battery. You should never connect directly to any other devices such as inverters . Connecting controller directly to inverter or other devices than battery may pose risk of fire hazard and have wind turbine/electrical failure.

DESCRIPTION

This controller combines the functions of AC to DC rectifier and wind turbine controller. It is the most cost effective solution for renewable energy system.

The controller is suitable for wind turbine with permanent magnet generator or hydro system with permanent magnet generators, which has a 3-phase AC output within the corresponding voltage range. This controller is suitable for use with 150W Solar PV. It rectifies and regulates the generator's 3 phase alternating current in order to be able to charge battery banks in a smooth and safe way the also protects the batteries from over-charging.

When the battery has reached fully charge state, it will cut off current flowing to the battery and brake the wind turbine automatically.

FEATURES

High reliability: efficient ventilation design ensure reliable and efficient operation.

Great for wind system controller can support battery charging from simultaneous wind generator load up to 500 watt. It can use together until 150W solar PV.

Load control and diversion control: the controller has over charge protection, short circuit protection, pole confusion protection.

It is reliable with highly efficient, long services life.

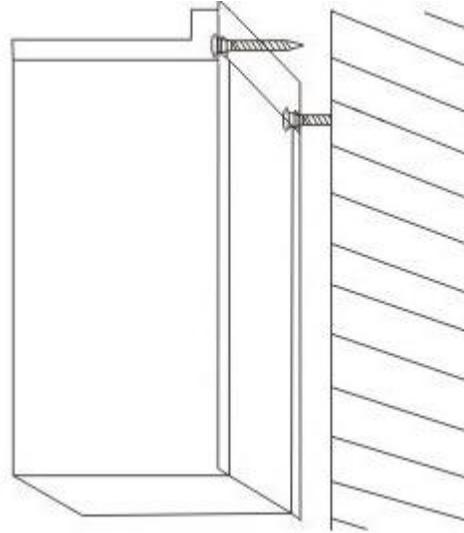
Light's Meaning

- ❖ **RED:** When red light is on it mean's brake system work (Battery Discharge)
- ❖ **ORANGE:** When orange light is on it mean's controller work (Battery Charge Mode)

SPECIFICATION

MODEL	12V/650W	24V/650W
Rated Output Power	500W	500W
Input Voltage Range	14,2 ~ 17	24,6 ~ 28
Range Battery Voltage	12V	24V
Max Input Solar Power	150W	150W
Max Input Wind Power	500W	500W
Over Charge Protection	15V	30V
No-load current	≤0.2 A	≤0.2 A
Recommend Battery	12V / 150 Ah	24V / 150 Ah
Wind Turbine Max. Input Current	40 Ah	20 Ah
Weight	650 gr	650 gr
Size	200 x 115 x 60	200 x 115 x 60

INSTALLATION



The controller is designed to be mounted on a vertical wall

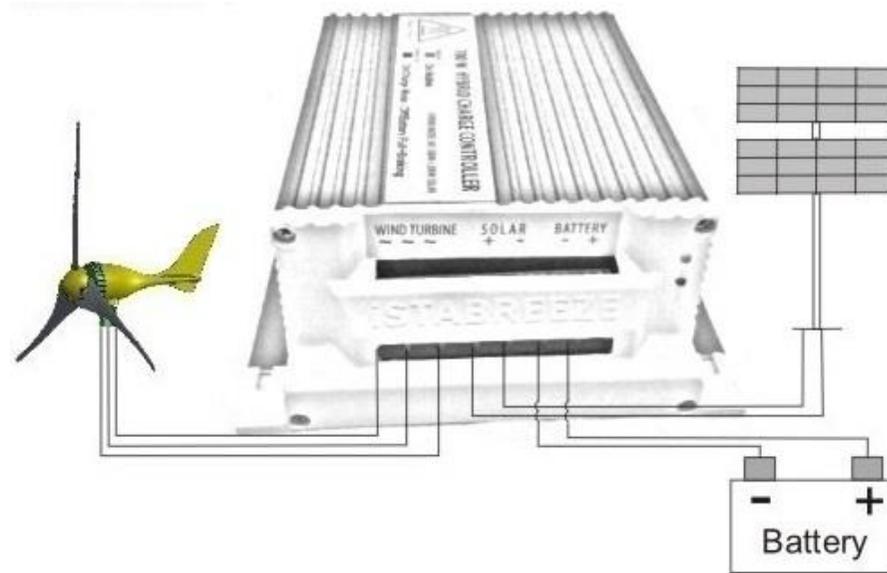
Step 1:

Connect the device as shown in battery, the battery cable connection, use a minimum thickness of 4mm².

Please attention when you connect terminals, If connecting like ++ and righth, your controller will burn and it out of warranty.

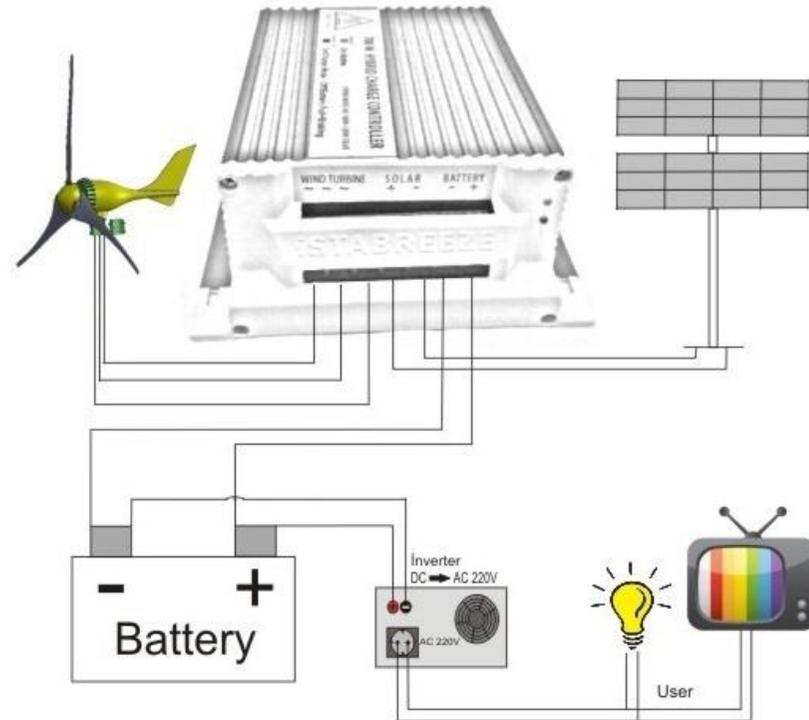
Step 2:

3 connect the cable from the devices as shown in the wind turbine. (this 3-cable connection sequence is not important.) When start to installation be careful +/- pole, Connect cable comes from Solar PV what is shown on devices.



Battery and Turbine installation with controller

Schließen Sie nun die Solaranlage an, passen Sie bitte auf das Sie Minuspol zu Minuspol und Pluspol zu Pluspol verbinden



Wiring diagram for an example

That's it. Installation is finished