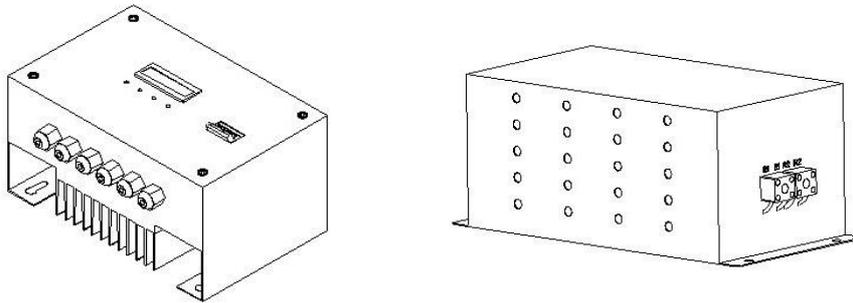


S-1000 MPPT Controller Manual

CAUTION: WHEN THE WIND TURBINE IS WORKING, NEVER DISCONNECT THE BATTERY FOR EVEN A SECOND, OR ELSE WILL DAMAGE THE CONTROLLER AND VOID YOUR WARRANTY.



1/ Features

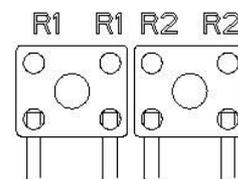
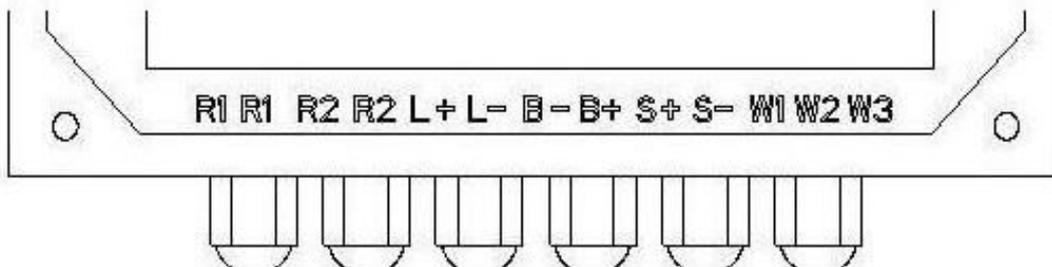
- 1.1 The controller has MPPT function.
- 1.2 The wind generator over-load automatic unloading.
- 1.3 Batteries overcharge and over-discharge protection.
- 1.4 Protect batteries charge to solar panel at night.

2/ Technical parameters

Rated output voltage(DC)	24V	48V
Rated output power(DC)	800W	1000W
Max output power(DC)	1000W	1200W
Solar Panels	300W	500W
Wind generator rated DC current	28A	20A
Battery overcharge protection voltage	28.8V	57.2V
Battery over-voltage protection recovery time	15min	
Over-current automatic braking recovery time	30min	
Controller shell protection grade	IP20/IP54	
Ambient temperature(°C)	-10 --- 40	
Altitude(m)	≤ 2000	

3/ Install the operating specifications

3.1 Terminals in accordance with the label:



R1: Connect to unload-box main unloading resistance (1-2KW/1-3Ω)
 R2: Connect to unload-box Auxiliary unloading resistance (1-2KW/1-3Ω)
 W1 / W2 / W3: Input terminals of wind turbine (Regardless of sequence)
 B+: Battery Positive B-: Battery Negative
 S+: Solar Panel Positive S-: Solar Panel Negative
 L+ / L-: Load (Option)

3.2 Controller based on its protection level, housed in indoor and outdoor drying, ventilation, may not be around the inflammable and explosive materials.

- 3.2.1 Controller should be mounted vertically, hanging solid.
- 3.2.2 Using an external unload-box, because the unload-box surface temperature will exceed 85 °C, must be firmly placed in the position of the manpower is not easy to touch at the same time around a well-ventilated, non - flammable, explosive materials.
- 3.2.3 Before wiring to the controller, must turn the manually switch to "**BREAK**" position, when wiring to prevent electric shock accidents by running generators.
- 3.2.4 Check the wiring correct, then turn back the manually switch.

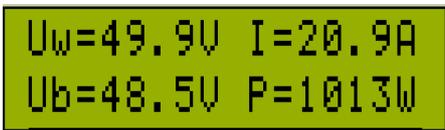
3.3 Running state, Feature set indicator, LCD screen

3.3.1 LED indicator

LED	State	Function
Battery	Light	The battery is connect
	OFF	The battery is disconnect
Solar	Light	Solar is charging
	OFF	Solar is not charging
Break	Fast Blink	Battery over-voltage protection
	Slow Blink	Over-current protection
Wind	Light	Wind turbine is charging
	OFF	Wind turbine is not charging

3.3.2 LCD screen

3.3.2.1 Energized normal display value



Uw: Wind turbine line voltage I: Battery charging current
 Ub: Battery voltage P: Wind turbine output power

4/ Installation, operation precautions

- 4.1 To confirm that the system equipment before the access, such as: wind turbines, solar panel, batteries, lightning protection devices, cable selection is configured correctly and installed correctly.
- 4.2 Check each device insulation resistance to ground should be consistent with the technical requirements of the wind / photovoltaic power generation system.

CAUTION: WHEN THE WIND TURBINE IS WORKING, NEVER DISCONNECT THE BATTERY FOR EVEN A SECOND, OR ELSE WILL DAMAGE THE CONTROLLER AND VOID YOUR WARRANTY.

Warning: Installation, disassembly and repair the Wind Turbine, must turn the manually switch to "BREAK" position.