

BlueSolar PWM Charge Controller-LCD&USB 12/24V & 48V

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Liquid crystal display

For status monitoring and set-up

Load output

Over-discharge of the battery can be prevented by connecting all loads to the load output. The load output will disconnect the load when the battery has been discharged to a pre-set voltage.

Some loads (especially inverters) can best be connected directly to the battery, and the inverter remote control connected to the load output. A special interface cable may be needed, please see the manual. The connect and disconnect voltages are adjustable.

Day/night timing of the load output

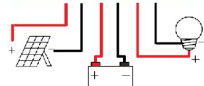
This option allows for a pre-set ON-time after dusk.

Programmable battery charge algorithm

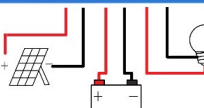
Preprogrammed algorithms for AGM, GEL, Flooded or LiFePO4 batteries (with internal BMS only)

Two 5 Volt USB outputs

Maximum current (both outputs combined): 2A



**BlueSolar Charge Controllers
LCD&USB 12/24-5/10/20**



**BlueSolar Charge Controllers
LCD&USB 12/24-30 & 48-10/20/30**

| BlueSolar PWM Charge Controller | 12/24-5 | 12/24-10 | 12/24-20 | 12/24-30 | 48-10 | 48-20 | 48-30 |
|--|---|----------|----------------------|---|--|-------|-------|
| Battery Voltage | 12/24 V with automatic system voltage detection | | | | 48V | | |
| Rated charge current | 5A | 10A | 20A | 30A | 10A | 20A | 30A |
| Automatic load disconnect | Yes | | | | | | |
| Maximum solar voltage | 28V / 55V (1) | | | | 100V (1) | | |
| Self-consumption | < 10 mA | | | | | | |
| Load output | Manual control + low voltage disconnect +timer | | | | | | |
| Protection | Battery reverse polarity (fuse) | | Output short circuit | | Over temperature | | |
| Overload protection | Shut down after 60 s in case of 130% load | | | | | | |
| | Shut down after 5 s in case of 160% load | | | | | | |
| | Short circuit: immediate shut down | | | | | | |
| Grounding | Common positive | | | | | | |
| Operating temp. range | -35 to +60°C (full load) | | | | | | |
| Humidity (non-condensing) | Max 95% | | | | | | |
| BATTERY | | | | | | | |
| Charge voltage 'absorption' | Factory setting: 14,4V / 28,8V | | | | Factory setting: 57,6V | | |
| Charge voltage 'float' (2) | Factory setting: 13,7V / 27,4V | | | | Factory setting: 54,8V | | |
| Low voltage load disconnect | Factory setting: 11,2V / 22,4V | | | | Factory setting: 44,8V | | |
| Low voltage load reconnect | Factory setting: 12,6V / 25,2V | | | | Factory setting: 50,4V | | |
| USB | | | | | | | |
| Voltage | 5V | | | | | | |
| Current | 2A (total from 2 outputs) | | | | | | |
| ENCLOSURE | | | | | | | |
| Protection class | IP20 | | | | | | |
| Terminal size | 6 mm ² / AWG10 | | | | 16mm ² / AWG6 | | |
| Weight | 0,15kg | | | | 0,3kg | | |
| Dimensions (h x w x d) | 96 x 169 x 36 mm (3.8 x 6.7 x 1.4 inch) | | | | 101x184x47mm (4.0 x 7.4 x 1.8 inch) | | |
| STANDARDS | | | | | | | |
| Safety | EN60335-1, IEC 62109-1 | | | | | | |
| EMC | EN 61000-6-1, EN 61000-6-3, ISO 7637-2 | | | | | | |
| 1) For 12V use 36 cell solar panels For 24V use 72 cell solar panels or 2x 36 cell in series For 48V use 2x 72 cell solar panels or 4x 36 cell in series | | | | 2) The controller switches to the lower float voltage level 2 hours after the absorption voltage has been reached. Whenever the battery voltage becomes lower than 13V, a new charge cycle is triggered. | | | |