Manual EN

Handleiding NL

Manuel FR

Anleitung DE

Manual ES

Användarhandbok SE

Appendix

BlueSolar charge controllers

MPPT 100/30 MPPT 100/50

1. General Description

1.1 PV voltage up to 100V
The charge controller is able to charge a lower nominal-voltage battery from a higher nominal voltage PV array.
The controller will automatically adjust to a 12 or 24V nominal battery voltage.

1.2 Ultra-fast Maximum Power Point Tracking (MPPT)
Especially in case of a clouded sky, when light intensity is changing continuously, an ultra fast MPPT controller will improve energy harvest by up to 30% compared to PWM charge controllers and by up to 10% compared to slower MPPT controllers.

1.3 Advanced Maximum Power Point Detection in case of partial shading conditions
If partial shading occurs, two or more maximum power points may be present on the power-voltage curve.
Conventional MPPTs tend to lock to a local MPP, which may not be the optimum MPP.
The innovative SmartSolar algorithm will always maximize energy harvest by locking to the optimum MPP.

1.4 Outstanding conversion efficiency
No cooling fan. Maximum efficiency exceeds 98%. Full output current up to 40°C (104°F).

1.5 Extensive electronic protection
Over-temperature protection and power derating when temperature is high.
PV short circuit and PV reverse polarity protection.
PV reverse current protection.

1.6 Internal temperature sensor
Compensates absorption and float charge voltages for temperature.

1.7 Automatic battery voltage recognition
The controller will automatically adjust itself to a 12V or a 24V system **one time only**. If a different system voltage is required at a later stage, it must be changed manually, for example with the Bluetooth app, see section 1.12 and 3.8