Bateria Power

## MPPT Solar Charge Controller

User Manual
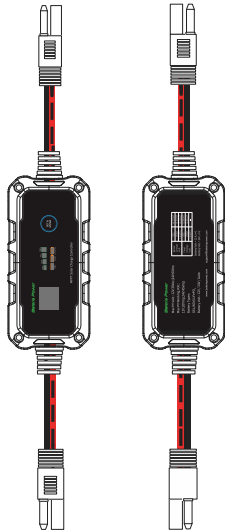
Main Feature

· 20A MPPT solar charge controller with portable design.
· 3-stage charging optimizes battery performance.
· Suitable for battery types such as vented GEL、AGM and LiFePO$_4$.
· LCD shows Battery Voltage and Charge Current,etc .
· LED inducts Battery Soc、Charging Sta and Battery type.
· User-friendly key press operation, more simple and easier.
· Easy to be mounted.
· Overcharge、Over-temperature、Reverse Polarity Protection.

Warning and Caution

· Designed for 12V/24V/Auto batteries.
· The PV Voc cannot exceed 60V.
· Use within rated power and voltage range.
· Avoid placing solar panels in partially sunny or shaded environments.
· Keep controller away from water.
· Avoid direct sunlight.
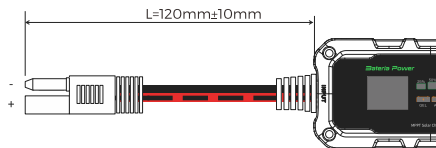· Keep good heat dissipation.

Product Dimension

150,0mm

35,0mm

79,3mm

Installation

Negative   Positive   Positive   Negative
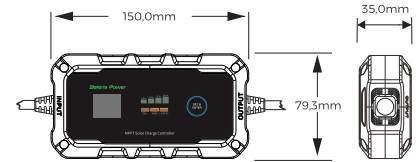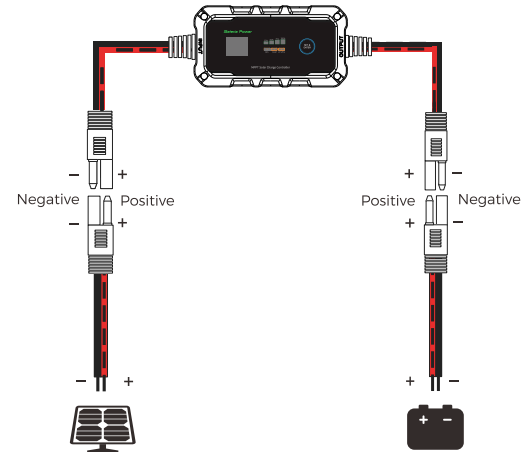
Wire Dimension

1) Accessories

L=130mm±10mm

+
-

2) Controller

L=120mm±10mm

-
+

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Key Operation

Function Key	System Mode	Operation	Operation Indication
SET & ENTER	(LCD only)	Long Press	Enter Set Mode
		Short Press	Screen Page Switch
	Set Mode (Battery LED only)	Long Press	Enter Next Set Item or Exit Set Mode And Save
		Short Press	Edit Parameter

LCD Display Indication

| 88.8 ℃ V F A |

Menu 1: BAT Volt & Charge Curr
Menu 2: Device Temp
Menu 3: ERROR
Menu 4: System Volt and BAT Type (Only LFP Type and Elf20)

12.4 v
5.8 A
→
39 ℃
102 ℉
→
E00
→
12 v
LFP

SET & ENTER
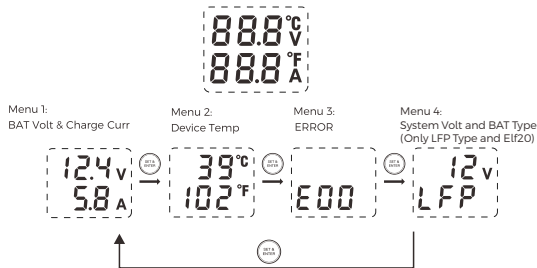
Error Code

Code	Error
E00	No Error
E01	Over-Discharge
E02	Battery Over Voltage
E06	Device Over Heating
E10	PV Over Voltage
E13	Solar Reverse Polarity
E14	Battery Reverse Polarity

LED Display Indication

1) Battery SOC Indication

25%   50%   75%   100%
LED 1 LED 2 LED 3 LED 4

SOC	25%	50%	75%	100%
Bat Volt	11.6V	12.1V	12.6V	13.2V

● Float Fashing   ● Steady On

SOC	Charging State	LED1	LED2	LED3	LED4
<25	Charging	●	●	●	●
	Idle	●			
<50	Charging	●	●	●	●
	Idle	●	●		
<75	Charging	●	●	●	●
	Idle	●	●	●	
>75	Charging	●	●	●	●
	Idle	●	●	●	●

2) Battery Type Indication

System mode		Describe
View Mode	●	The current battery type is selected
Set Mode	●	

Abbreviations	Battery Types
GEL	GEL Battery
AGM	AGM Battery
LiFePO₄	Lithium iron phosphate battery

GEL   AGM   LiFePO₄

Equalize Charge Voltage	GEL	-
	AGM	14.6V
	LiFePO₄	-
Boost Charge Volt.	GEL	14.2V
	AGM	14.4V
	LiFePO₄	14.4V
Float Charge Volt.	GEL	13.8V
	AGM	13.8V
	LiFePO₄	-

3) System Voltage

After setting the battery type to LiFePO₄ , long-press to enter to system voltage selection interface, in this operation interface, the LiFePO₄ indicator light is flashing, 12/24V is also flashing on the screen. The user can choose 12V or 24V as system voltage. Then long-press to exit the settings.

LiFePO₄

12 v LFP   ↔   24 v LFP
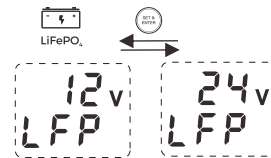
Parameter	Value
No-load Loss	12V/20mA ; 24V/12mA
System Voltage	12V/24V AUTO
Max Solar Input Voltage	12V/30Voc; 24V/60Voc
Rated Solar Charge Current	20A
Max Solar Input Power	300W/12V; 600W/24V
Operating Temperature	-20℃~+45℃
IP Protection	IP45
Net Weight	350g
Operating Altitude	≤3000 meters
Controller Dimension(mm)	150*79.3*35