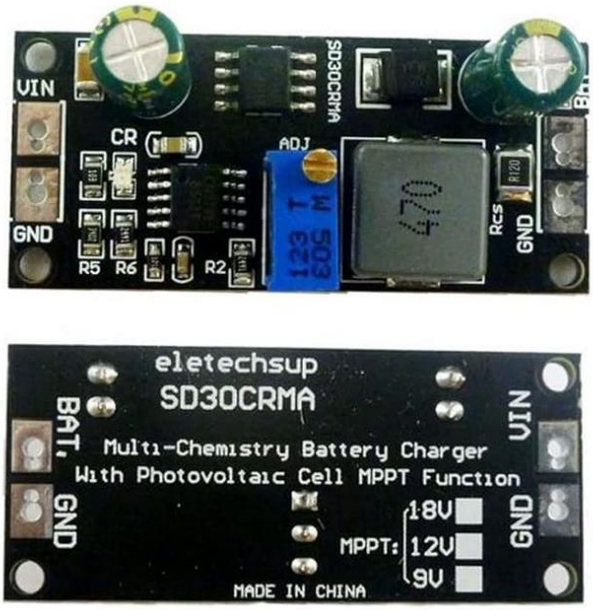
MPPT Solar Charge Controller Solar Panel Charger Controller 1A 3.2V 3.7V 3.8V 7.4V 11.1V 14.8V Lithium LiFePO4 Titanate Battery Charger Module Battery Charging Board (18V) Unofficial Specification Sheet[1]

Dimensions:

Size: 45x20x15mm

Weight: 7.3g



[1] All Specifications provided from Manufacturer on Purchasing Webpage

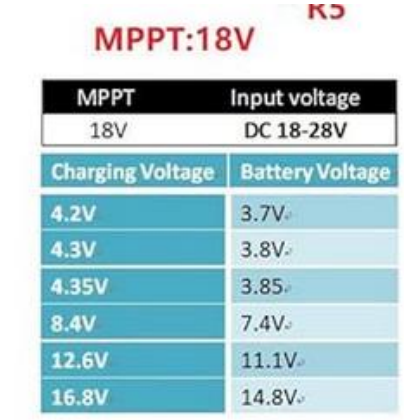
Specifications:

- 1A 3.2-18.5V Multipurpose Battery Charger with With Photovoltaic Cell MPPT Function
- Complete Charge Controller for Singleor Multi-cell Lithium ion, LiFePO4 or Lithium Titanate Batteries
- Input DC 7-28V,Output DC 1.2-21V Adjustable(3.6V 4.2V 4.3V 4.35V 8.4V 12.6V 16.8V 21V)； The maximum charge current/ output current is 1A, but you can change the current by changing the value of the Rcs resistor.
- Can be used as Voltage Source when Battery is Absent; Automatic Conditioning of Deeply Discharged Batteries; Automatic Recharge； Led indicator: "CR" LED is charge status indicator； Battery Overvoltage Protection
- Operating Ambient Temperature40°C to + 85°C； Size: 45x20x15mm； Weight: 7.3g

Additional Information:

- **Wiring:**

- **Charging:**

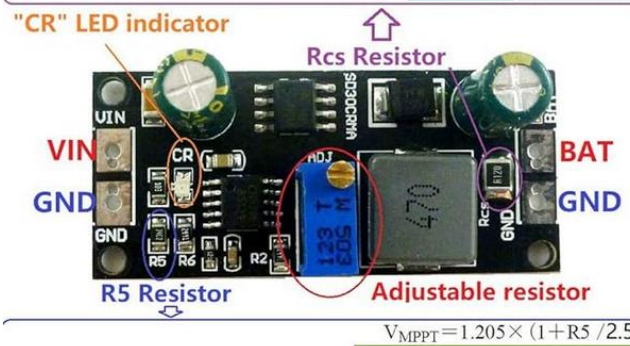


MPPT	Input voltage
18V	DC 18-28V
Charging Voltage	**Battery Voltage**
4.2V	3.7V
4.3V	3.8V
4.35V	3.85
8.4V	7.4V
12.6V	11.1V
16.8V	14.8V

The maximum charging current is 1A, but you can change the charging current by the value of Rcs.

$$ICH = \frac{120mV}{Rcs}$$

RCS Resistor	charging current/ output current
0.24Ω/R240	0.5A
0.12Ω/R120	1A
0.08Ω/R080	1.5A
0.06Ω/R060	2A
0.03Ω/R030	3A



$$V_{MPPT} = 1.205 \times (1 + R5 / 2.5)$$

Changing the value of R5 can change the maximum input voltage. MPPT is disabled when R5=12KΩ

R5	VMPPT	Input voltage
12K Ω	Disable MPPT	DC 7-28V
16K Ω	9V	DC 9-28V
22.1K Ω	12V	DC 12-28V
34K Ω	18V	DC 18-28V

MPPT:18V

MPPT	Input voltage
18V	DC 18-28V
Charging Voltage	Battery Voltage
4.2V	3.7V
4.3V	3.8V
4.35V	3.85
8.4V	7.4V
12.6V	11.1V
16.8V	14.8V

MPPT:12V

MPPT	Input voltage
12V	DC 12-28V
Charging Voltage	Battery Voltage
4.2V	3.7V
4.3V	3.8V
4.35V	3.85
8.4V	7.4V

MPPT:9V

MPPT	Input voltage
9V	DC 9-28V
Charging Voltage	Battery Voltage
4.2V	3.7V
4.3V	3.8V
4.35V	3.85
8.4V	7.4V

Change the value of R5 to 12K ohms

MPPT	Input voltage
R5=12K Ω	DC 7-28V
Charging Voltage	Battery Voltage
4.2V	3.7V
4.3V	3.8V
4.35V	3.85
8.4V	7.4V
12.6V	11.1V
16.8V	14.8V
21V	18.5V