

## Solar Charge Controller

### MPPT



**Model : DMC-MPPT**

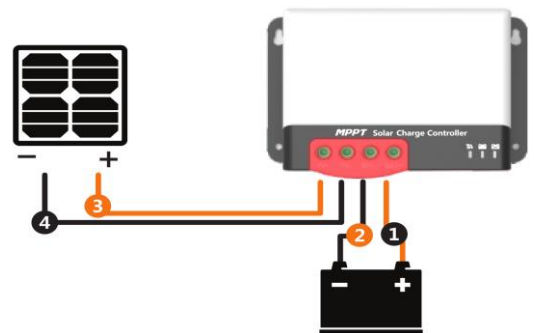
12/24V auto. 20A

12/24V auto. 30A

12/24V auto. 40A

12/24V auto. 50A

**Connection :**



### Features :

- High efficiency MPPT control algorithm, MPPT efficiency up to 99.8%, whole Machine conversion efficiency upto 98%;
- Stabilized charging voltage . When battery open circuit or lithium battery BMS overcharge protection, the controller will output at the rated charging voltage for battery .
- With current-limited charging function. When the charging current of solar panel is higher than rated value, the controller will automatically reduce the charging power, to ensure it charges at rated charging current .
- support for various types of batteries: lithium battery, colloidal battery, sealed battery, vented battery etc.
- External LCD screen or Bluetooth module can be connected for viewing operating data and status, and set controller parameters .
- Support standard Modbus protocol to meet communication demands in different occasions.
- Built-in over-temperature protection mechanism . when temperature over the set value, the charging current decreases according to the temperature, avoiding high temperature damage.
- Temperature compensation and automatic adjustment of charge and discharge current, which can help to improve battery life.
- With Solar panel short circuit protection, battery open circuit protection and TVS lightning protection etc.

### Protection Features :

 <p><b>OVER TEMPERATURE PROTECTION</b></p> <p>When working temperature raised too high, it will alarm and turn off automatically.</p>	 <p><b>LOW VOLTAGE PROTECTION</b></p> <p>When battery voltage becomes too low, it will alarm and turn off automatically.</p>	 <p><b>OVER VOLTAGE PROTECTION</b></p> <p>When battery voltage becomes too high, it will alarm and turn off automatically.</p>
 <p><b>OVERLOAD PROTECTION</b></p> <p>When the inverter is overload, it will alarm and turn off automatically.</p>	 <p><b>SHORT CIRCUIT PROTECTION</b></p> <p>When the wiring is short circuit, it will alarm and turn off automatically.</p>	 <p><b>REVERSE POLARITY PROTECTION</b></p> <p>When the battery connection is polarity reversed, it will alarm and turn off automatically.</p>

### Quality Conformity :

- RoHS:** European Directive 2011/65/EU Standard : IEC62321
- CE**
- EMC:** EMC Directive 2004/108/EC Standards: • EN55022, EN55024 • EN61000-4-2; EN61000-4-3
- FC**
- Part 15 of the FCC rules
- ISO:** ISO9001

**Parameters :**

Model	DMC-MPPT-20A	DMC-MPPT-30A	DMC-MPPT-40A	DMC-MPPT-50A
System voltage	12V/24V			
Zero load loss	<10mA			
Battery voltage	9V~32V			
Maximum PV open circuit voltage	92V(25°C); 100V(Lowest ambient temperature)			
Maximum power point voltage range	(Battery voltage +2V) ~ 72V			
Rated charging current	20A	30A	40A	50A
Maximum PV input power	260W/12V 520W/24V	400W/12V 800W/24V	550W/12V 1100W/24V	660W/12V 1320W/24V
Charging conversion efficiency	≤98%			
MPPT tracking efficiency	> 99%			
Temperature compensation coefficient	-3mv/°C/2V (default) ; Lithium battery features no temperature compensation			
Operating temperature	-35°C ~ +60°C			
IP rating	IP32			
Weight	650g	830g	1040g	1335g
Communication mode	TTL Serial communication			
Altitude	≤ 3000 meters			
Dimensions (mm)	150*105.6*61.5	150*105.6*67.5	183*127*65.5	183*127*69.5

**Battery Charging Parameters**

Battery type	Sealed lead-acid battery	Gel lead-acid battery	Flooded lead-acid battery	Lithium battery	User defined
Overvoltage disconnection	16.0V	16.0V	16.0V ---	---	9 ~ 17V
Equalizing charge voltage	14.6V	---	14.8V	---	9 ~ 17V
Boost charge voltage	14.4V	14.2V	14.6V	14.4V	9 ~ 17V
Floating charge voltage	13.8V	13.8V	13.8V	---	9 ~ 17V
Boost charge recovery voltage	13.2V	13.2V	13.2V	---	9 ~ 17V
Equalizing charge duration	120 min.	---	120 min.	---	0 ~ 600 min.
Boost charge duration	120 min.	120 min.	120 min.	---	10 ~ 600 min
Equalizing charge interval	30 days	0 days	30 days	---	0 ~ 250D (0 means equalizing function turn off)

NOTE: Specifications are subject to change without notice