

# MPPT SERIES

## Wonder1 SOLAR CHARGE CONTROLLER

10A-100A



Max PV Power Tracking



Smart battery management



Full protection

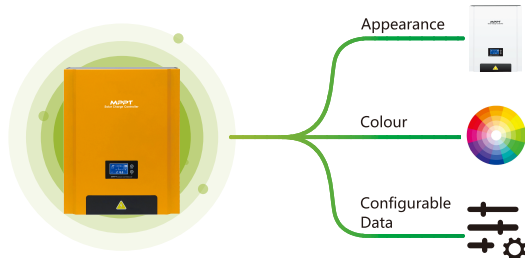


Note: The current product is shipped in yellow. After the yellow inventory is depleted, it will gradually transition to the white version.

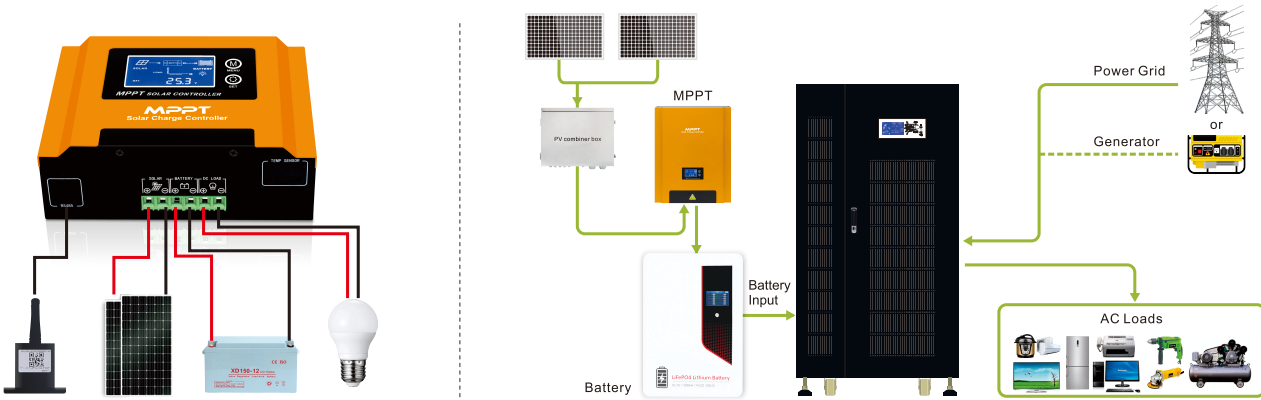
### Features

- Advanced MPPT Tracking, 99% tracking efficiency, compared with PWM, the generating efficiency increase near 20%.
- LCD display PV data and chart simulates power generation process.
- Wide PV input voltage range, convenient for system configuration.
- Intelligent battery management function, extend battery life.
- RS485 communication port optional, convenient for user Integration management.
- Multiple working modes to adapt different working occasion (only supported on 12V / 24V / 48V models).
- 12V/24V/48V automatic recognition, users are more flexible and convenient to use.

### OEM/ODM



### Product Display



MPPT Solar Charge Controller 10A-100A(12V/24V48V) 50A/100A(96V~384V)

### Technical Parameters

| Model: Wonder1                                            | W1-10/<br>20/30                                                                                                                                                                                                                                                                                                                     | W1-40/<br>50/60                               | W1-80/100                                     | W1-50                                                                                                         |                               |      | W1-100                                        |                    |                                 |  |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------------------------|------|-----------------------------------------------|--------------------|---------------------------------|--|
| Current/Voltage                                           |                                                                                                                                                                                                                                                                                                                                     |                                               |                                               |                                                                                                               |                               |      |                                               |                    |                                 |  |
| Rated Current                                             | 10A/20A/<br>30A                                                                                                                                                                                                                                                                                                                     | 40A/50A/<br>60A                               | 80A/100A                                      | 50A                                                                                                           |                               |      | 100A                                          |                    |                                 |  |
| Rated System Voltage                                      | 12V/24V/48VAuto Recognition                                                                                                                                                                                                                                                                                                         |                                               |                                               | 96V                                                                                                           | 192V/216V/<br>240V            | 384V | 96V                                           | 192V/216V/<br>240V | 384V                            |  |
| PV Input                                                  |                                                                                                                                                                                                                                                                                                                                     |                                               |                                               |                                                                                                               |                               |      |                                               |                    |                                 |  |
| Max PV Input Voltage (Voc)<br>(At The Lowest Temperature) | 150V                                                                                                                                                                                                                                                                                                                                |                                               |                                               | 96V system:300V ; 192V/216V system:450V ; 240V system:500V ; 384V system:800V                                 |                               |      |                                               |                    |                                 |  |
| MPPT Tracking Voltage Range                               | 12V system(15V-120V);<br>24V system(30V-120V) ; 48V system(60V-120V)                                                                                                                                                                                                                                                                |                                               |                                               | 96V system(120V-240V) ; 192V/216V system(240V/270V-360V) ;<br>240V system(300V-400V) ; 384V system(480V-640V) |                               |      |                                               |                    |                                 |  |
| PV Array Max Power                                        | 12V system:<br>140W(10A)/280W(20A)/420W(30A)/560W(40A)/700W(50A)<br>/840W(60A)/1120W(80A)/1400W(100A) ;<br>24V system:<br>280W(10A)/560W(20A)/840W(30A)/1120W(40A)/1400W<br>(50A)/1680W(60A)/2240W(80A)/2800W(100A) ;<br>48V system:<br>560W(10A)/1120W(20A)/1680W(30A)/2240W(40A)/2800W<br>(50A)/3360W(60A)/4480W(80A)/5600W(100A) |                                               |                                               | 5.6KW                                                                                                         | 11.2KW/12.6KW/<br>14KW/22.4KW |      | 5.6KW*2                                       |                    | 11.2KW/12.6KW/<br>14KW/22.4KW*2 |  |
| Battery                                                   |                                                                                                                                                                                                                                                                                                                                     |                                               |                                               |                                                                                                               |                               |      |                                               |                    |                                 |  |
| Battery Type                                              | Lead-acid batteryCustom battery                                                                                                                                                                                                                                                                                                     |                                               |                                               |                                                                                                               |                               |      |                                               |                    |                                 |  |
| Floating Charge Voltage                                   | 13.8V/Single battery                                                                                                                                                                                                                                                                                                                |                                               |                                               | 96V system:110.4V ; 192V system:220.8V ; 216V system:248.4V ;<br>240V system:276V ; 384V system:441.6V        |                               |      |                                               |                    |                                 |  |
| Equalized Charging Voltage                                | 14.2V/Single battery                                                                                                                                                                                                                                                                                                                |                                               |                                               | 96V system:113.6V ; 192V system:227.2V ; 216V system:255.6V ;<br>240V system:284V ; 384V system:454.4V        |                               |      |                                               |                    |                                 |  |
| Charging Protection Voltage                               | 15V/Single battery                                                                                                                                                                                                                                                                                                                  |                                               |                                               | 96V system:120V ; 192V system:240V ; 216V system:270V ;<br>240V system:300V ; 384V system:480V                |                               |      |                                               |                    |                                 |  |
| Protection                                                | over-voltage/under-voltage/over-temperature/PV&Battery anti-reverse protection etc.                                                                                                                                                                                                                                                 |                                               |                                               |                                                                                                               |                               |      |                                               |                    |                                 |  |
| Communication                                             | RS485/APP ( WIFI or GPRS monitoring )                                                                                                                                                                                                                                                                                               |                                               |                                               |                                                                                                               |                               |      |                                               |                    |                                 |  |
| Other                                                     |                                                                                                                                                                                                                                                                                                                                     |                                               |                                               |                                                                                                               |                               |      |                                               |                    |                                 |  |
| MPPT Tracking Efficiency                                  | >99%                                                                                                                                                                                                                                                                                                                                |                                               |                                               |                                                                                                               |                               |      |                                               |                    |                                 |  |
| Display                                                   | LCD                                                                                                                                                                                                                                                                                                                                 |                                               |                                               |                                                                                                               |                               |      |                                               |                    |                                 |  |
| Protection Degree                                         | IP20                                                                                                                                                                                                                                                                                                                                |                                               |                                               |                                                                                                               |                               |      |                                               |                    |                                 |  |
| Cooling Method                                            | Cooling fan in intelligent control                                                                                                                                                                                                                                                                                                  |                                               |                                               |                                                                                                               |                               |      |                                               |                    |                                 |  |
| Operating Temperature                                     | -15℃~50℃                                                                                                                                                                                                                                                                                                                            |                                               |                                               |                                                                                                               |                               |      |                                               |                    |                                 |  |
| Elevation                                                 | 2000m(more than derating)                                                                                                                                                                                                                                                                                                           |                                               |                                               |                                                                                                               |                               |      |                                               |                    |                                 |  |
| Relative Humidity                                         | 5~95%(No condensation)                                                                                                                                                                                                                                                                                                              |                                               |                                               |                                                                                                               |                               |      |                                               |                    |                                 |  |
| Dimensions and Weight                                     |                                                                                                                                                                                                                                                                                                                                     |                                               |                                               |                                                                                                               |                               |      |                                               |                    |                                 |  |
| Machine Size(L*W*Hmm)                                     | 185*135*65                                                                                                                                                                                                                                                                                                                          | 240*143*74                                    | 280*180*100                                   | 315*250*108                                                                                                   | 460*330*140                   |      | 315*250*108                                   | 530*410*162        |                                 |  |
| Package Size(L*W*Hmm)                                     | 235*185*116<br>(1pc)<br>383*249*246<br>(4pcs)                                                                                                                                                                                                                                                                                       | 290*203*126<br>(1pc)<br>419*304*266<br>(4pcs) | 330*240*153<br>(1pc)<br>487*345*166<br>(2pcs) | 356*296*147<br>(1pc)<br>365*305*303<br>(2pcs)                                                                 | 509*405*215                   |      | 356*296*147<br>(1pc)<br>365*305*303<br>(2pcs) | 598*487*239        |                                 |  |
| N.W.(kg)                                                  | 1.15                                                                                                                                                                                                                                                                                                                                | 1.8                                           | 3.7                                           | 4.5                                                                                                           | 13.5                          | 15   | 5.6                                           | 22.6               | 26.5                            |  |
| G.W.(kg)                                                  | 1.35                                                                                                                                                                                                                                                                                                                                | 2                                             | 4                                             | 5.2                                                                                                           | 15                            | 16.5 | 6.3                                           | 24.6               | 28.5                            |  |

Note: 1. Specifications are subject to change without prior notice;  
2. Special voltage and power requirements can be customized according to the actual situation of users.