

# MPPT Solar Charge Controller

## Feature

- 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.



## System Application Diagram



## Technical Parameters

| Model: Wonder1                      | 96/50  | 96/100   | 192/50, 216/50, 240/50,384/50 |     | 192/100, 216/100, 240/100,384/100  |      |
|-------------------------------------|--|----------|-------------------------------|-----|------------------------------------|------|
| Rated current                       | 50A  | 100A     | 50A                           |     | 100A                               |      |
| Rated System Voltage                | 96V  |          | 192V/216V /240V               | 384 | 192V/216V /240V                    | 384  |
| Max PV input voltage(at 25°C)       | 300V(96V system) / 450V(192V/216V system) / 500V(240V system) / 800V(384V system)  |          |                               |     |                                    |      |
| PV array Max power                  | 5.6KW  | 5.6KW *2 | 11.2KW/12.6KW/ 14KW/22.4KW    |     | 11.2KW*2/12.6KW*2/ 14KW*2/22.4KW*2 |      |
| MPPT Tracking Voltage Range         | Battery voltage~240V(96V system) / Battery voltage~360V(192V/216V system) / Battery voltage~400V ( 240V system) /Battery voltage~640V(384V system) |          |                               |     |                                    |      |
| MPPT route number                   | 1  | 2        | 1                             | 2   |                                    |      |
| Recommended operating voltage range | 120V-160V(96V system); 240V-320V(192V system); 270V-320V(216V system); 300V-350V(240V system); 480V-560V(384V system)                              |          |                               |     |                                    |      |
| Battery type                        | Lead acid battery/deep cycle battery/gel battery etc(Battery type base on user charge sepecification)  |          |                               |     |                                    |      |
| Floating voltage                    | 110.4V/220.8V/248.4V/276V/441.6V   |          |                               |     |                                    |      |
| Charge voltage                      | 113.6V/227.2V/255.6V/284V/454.4V   |          |                               |     |                                    |      |
| Charging protection voltage         | 120V/240V/270V/300V/480V   |          |                               |     |                                    |      |
| Promote recovery voltage            | 105.6V/211.2V/237.6V/264V/422.4V   |          |                               |     |                                    |      |
| Temperature compensation            | -3mV/C2V ( 25°C is baseline ) ( Optional )   |          |                               |     |                                    |      |
| Charging mode                       | MPPT maximum power point tracking  |          |                               |     |                                    |      |
| Charging method                     | Three stages: constant current(MPPT), constant voltage, floating charge  |          |                               |     |                                    |      |
| Protection                          | Over-voltage/under-voltage/over-temperature/PV&Battery anti-reverse protection   |          |                               |     |                                    |      |
| Conversion Efficiency               | > 98%  |          |                               |     |                                    |      |
| MPPT efficiency                     | > 99%  |          |                               |     |                                    |      |
| Machine dimension(L*W*Hmm)          | 315*250*108  |          | 400*300*161.5                 |     | 530*410*161.5                      |      |
| Package dimension(L*W*Hmm)          | 365*310*164  |          | 452*378*208                   |     | 600*490*207                        |      |
| N.W.(kg)                            | 4.5  | 5.6      | 10                            | 11  | 14.5                               | 17.5 |
| G.W.(kg)                            | 5.2  | 6.3      | 11                            | 12  | 16                                 | 19   |
| 系统参数                                |  |          |                               |     |                                    |      |
| Display                             | LCD  |          |                               |     |                                    |      |
| Thermal method                      | Cooling fan in intelligent control   |          |                               |     |                                    |      |
| Protection level                    | IP20   |          |                               |     |                                    |      |
| Operating temperature               | -15°C~+50°C  |          |                               |     |                                    |      |
| Storage temperature                 | -20°C~+60°C  |          |                               |     |                                    |      |
| Elevation                           | <5000m(Derating above 2000m)   |          |                               |     |                                    |      |
| Humidity                            | 5%~95% , No condensation   |          |                               |     |                                    |      |
| Communication                       | RS485(Optional)  |          |                               |     |                                    |      |

Note: Specifications are subject to change without prior notice.