

# 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;
- 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.



## System Application Diagram



## Technical Parameters

Model: Wonder1	150/10, 150/20, 150/30 (10/20/30)	150/40, 150/50, 150/60 (40/50/60)	150/80, 150/100 (80/100)	96/50 (50)	96/100 (100)	192/50, 216/50, 240/50, 384/50 (50)	192/100, 216/100, 240/100, 384/100 (100)		
Rated current	10A/20A/30A	40A/50A/60A	80A/100A	50A	100A	50A	100A		
Rated System Voltage	12V/24V/48V Auto Recognition			96V	96V	192V/216V/240V	384V		
Max PV Input Voltage (Voc) (At the lowest ambient temperature)	150V			300V(96V system) / 450V(192V/216V system) / 500V(240V system) / 800V(384V system)					
MPPT Tracking Voltage Range	12V system: 15V-120V; 24V system: 30V-120V; 48V system: 60V-120V			120V~240V(96V system) / 240V/270V~360V(192V/216V system) / 300V~400V (240V system) /480V~640V(384V system)					
Recommended operating voltage range	12V system: 15V-20V; 24V system: 30V-40V; 48V system: 60V-80V			120V-160V(96V system); 240V-320V(192V system); 270V-320V(216V system); 300V-350V(240V system); 480V-560V(384V system)					
PV array Max power	12V system: 140W(10A)/280W(20A)/420W(30A)/560W(40A)/700W(50A)/840W(60A)/1120W(80A)/1400W(100A); 24V system: 280W(10A)/560W(20A)/840W(30A)/1120W(40A)/1400W(50A)/1680W(60A)/2240W(80A)/2800W(100A); 48V system: 560W(10A)/1120W(20A)/1680W(30A)/2240W(40A)/2800W(50A)/3360W(60A)/4480W(80A)/5600W(100A)			5.6KW	5.6KW *2	11.2KW/12.6KW/14KW/22.4KW	11.2KW*2/12.6KW*2/14KW*2/22.4KW*2		
MPPT route number	1			1	2	1	2		
Battery type	Lead acid battery(Battery type base on user charge specification)								
Floating voltage	13.8V/Single battery			110.4V(96V system)/220.8V(192V system)/248.4V(216V system)/276V(240V system)/441.6V(384V system)					
Charge voltage	14.2V/Single battery			113.6V(96V system)/227.2V(192V system)/255.6V(216V system)/284V(240V system)/454.4V(384V system)					
Charging protection voltage	15V/Single battery			120V(96V system)/240V(192V system)/270V(216V system)/300V(240V system)/480V(384V system)					
Promote recovery voltage	13.8V/Single battery			105.6V(96V system)/211.2V(192V system)/237.6V(216V system)/264V(240V system)/422.4V(384V system)					
Recovery voltage after low voltage disconnect	12.5V/Single battery			/					
Discharge Limited voltage	10.5V/Single battery			/					
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 anti-reverse protection								
Conversion Efficiency	> 98%								
MPPT Tracking Efficiency	> 99%								
Machine dimension(L*W*Hmm)	185*135*65	240*143*74	280*180*100	315*250*108	460*330*140	530*410*162			
Package dimension(L*W*Hmm)	224*171*94(1PC) 351*233*196(4PCS)	281*181*103(1PC) 371*290*214(4PCS)	321*224*134(1PC) 457*330*142(2PCS)	356*296*147(1PC) 365*305*303(2PCS)	509*405*215		598*487*239		
N.W.(kg)	1.15(1PC)	1.8(1PC)	3.6(1PC)	4.5(1PC)	5.6(1PC)	13.5	15	22.6	26.5
G.W.(kg)	1.35(1PC)	2.0(1PC)	3.8(1PC)	5.2(1PC)	6.3(1PC)	15	16.5	24.6	28.5
<b>System Parameters</b>									
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(Dreating above 2000m)								
Humidity	5%~95%, No condensation								
Communication	RS485/APP (WIFI monitoring or GPRS monitoring)								

Note: Specifications are subject to change without prior notice.