

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
System Parameters									
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.