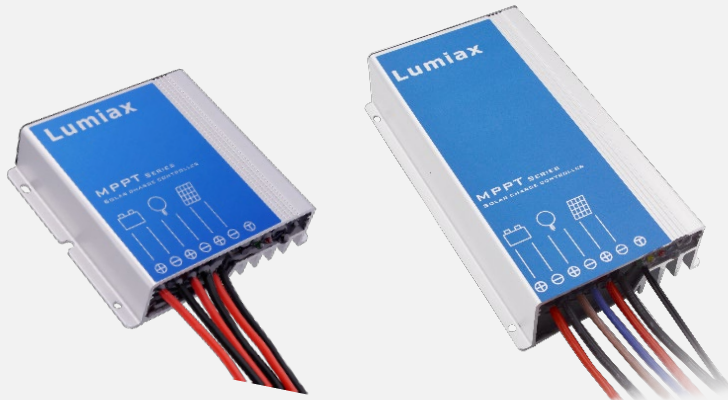


# Smart-MPPT series

## MPPT Solar charge controller



SMR-MPPT1050/RS485

SMR-MPPT1575/RS485

SMR-MPPT2075/RS485

### Functions

Smart-MPPT series intelligent MPPT solar controller is programmable, waterproof and well-suited for a wide range of solar systems. The charging efficiency of this controller is higher than a traditional PWM controller, helping to get the most out of the solar panel.

It comes with a number of outstanding features, such as:

- Innovative Maximum Power Point Tracking(MPPT) technology, tracking efficiency >99.9%
- High charge conversion efficiency up to 97.5%
- Suitable for Gel, Liquid, AGM and Lithium battery
- Four stage charging: MPPT, boost, equalization, float
- 0°C Charging Protection(Lithium)
- When BMS power off because of LVD, it can activate the system automatically
- Day/Night threshold can adjust automatically
- Configurable with an LCD remote programmer (S-Unit)
- Waterproof IP67, Strong and durable aluminum case
- Adjustable 5-stage timer for load output
- Monitoring of the running status and parameters
- Full automatic electronic protect function



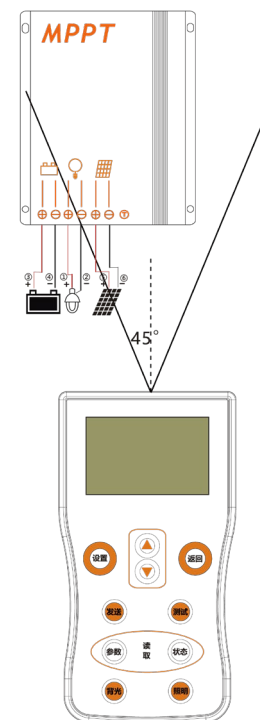
MPPT



IP67

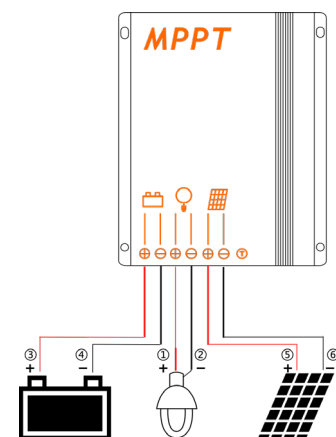


### Remote controller



Settings can be changed using the "S-Unit" infrared remote programmer. For detailed instructions and settings, please see the S-Unit programmer remote manual.

The following diagram provides an overview of the terminals. Please make sure to follow the proper order of connection.



## Technical Data

	Item	SMR-MPPT1050/RS485/BT	SMR-MPPT1575/RS485	SMR-MPPT2075/RS485	
Battery Parameters	Max Charging Current	10A	15A	20A	
	System Voltage	12V	12V/24V automatical recognition		
	Max input power	130W	200W/400W	260W/520W	
	Max volt on Bat. Terminal	25V	35V		
	Battery Type	Lithium, Liquid, Gel, AGM (Programmable, default: Gel)			
	Liquid, Gel, AGM	MPPT Charging Voltage	<14.5V@25°C	<14.5/29V@25°C	
		Boost Voltage	14.5V @25°C	14.5/29V@25°C	
		Equalization Voltage	14.8V @25°C	14.8/29.6V @25°C (Liquid, AGM)	
		Float Voltage	13.7V @25°C	13.7/27.4V@25°C	
		Low Volt. Disconnect	10.8~11.8V,SOC1~5	10.8~11.8V/21.6~23.6V; SOC1~5 (Default: 11.2/22.4V)	
		Reconnect Voltage	11.4~12.8V	11.4~12.8V/22.8~25.6V (Default: 12.0/24.0V)	
		Overcharge Protect	15.5V	15.5/31.0V	
	Temp. Compensation	-4.17mV/K per cell (Boost, Equalization), -3.33mV/K per cell (Float)			
	Lithium	Charging voltage target	10.0~17.0V	10.0~32.0V (Programmable)	
		Charging voltage recovery	9.2~16.8V	9.2~31.8V (Lithium, Programmable)	
Low voltage disconnect		9.0~15.0V	9.0~30.0V (Lithium, Programmable)		
Low voltage reconnect		9.6~16.0V	9.6~31.0V (Programmable)		
0°C Charging protection		Yes, No, Slow(Default: Yes)			
Panel Parameters	Max volt on PV terminal *1	45V	55V		
	Dusk/Dawn detect volt.	3.0~8.0V	3.0~20.0V (Programmable)		
	Day/Night delay time	0~30Min (Programmable)			
	MPPT tracking range *2	(Battery Voltage + 1.0V)~Voc*0.9			
	Max tracking efficiency	>99.9%			
Load	Output Current	10A	15A	20A	
System Parameters	Max charge conversion	96.5%	97.5%		
	Communication	Infared/RS485			
	Self consumption	6mA			
	Dimensions	85.8*81*23.1mm	85.5*45*30mm	85.5*45*42.5mm	
	Weight	260g	600g	720g	
	Ambient temperature	-35~+60°C			
	Ambient humidity	0~100%RH			
	Protection degree	IP67			
	Max Altitude	4000m			

\*1.PV panel Voc can not exceed this value, otherwise it will damage the controller

\*2.Voc means the open circuit voltage of the solar panel