

Smart-MPPT series

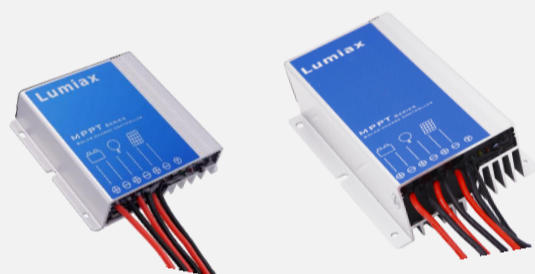
MPPT Solar charge controller



MPPT



IP67



SMR-MPPT1050



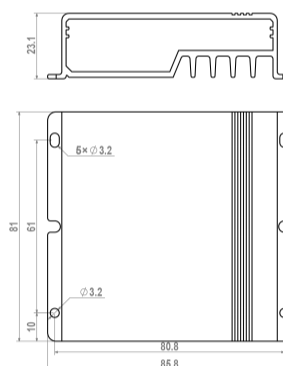
SMR-MPPT1575
SMR-MPPT2075



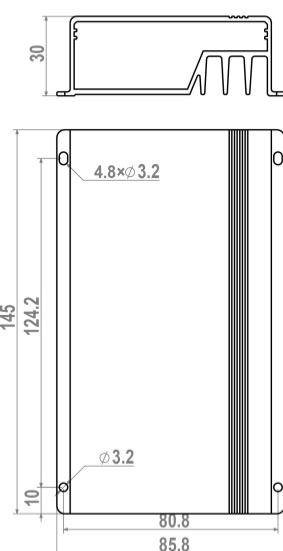
SMR-MPPT1575-RS485
SMR-MPPT2075-RS485

Dimensions

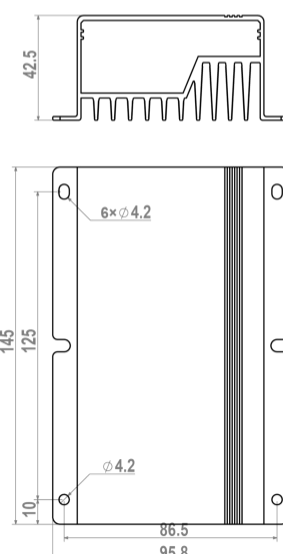
Unit:mm



SMR-MPPT1050



SMR-MPPT1575



SMR-MPPT2075

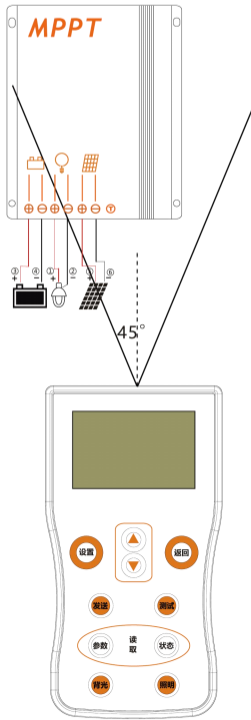
Functions

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.

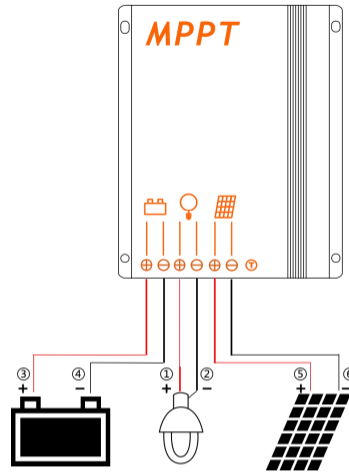
It comes with a number of outstanding features, such as:

- Innovative Maximum Power Point Tracking(MPPT) technology, tracking efficiency >99.9%
- High charge conversion efficiency up to 96.5%
- Multiple load output modes are available
- Use high performance, ultra-low power consumption Bluetooth dedicated chip
- Adopt Bluetooth 5.0 and BLE technology
- 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
- Waterproof IP67, Strong and durable aluminum case
- Full automatic electronic protect function

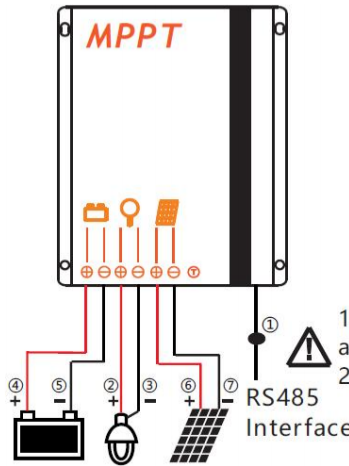
Remote controller



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.



Wire	RS485
Brown	Battery +
Black	GND
Blue	RS485-A
Green	RS485-B

1. The connectors with electricity are prohibited to connect together!
2. GND is not connected to B-.

RS485 Interface

Technical Data

	Item	SMR-MPPT1050/BT/RS485	SMR-MPPT1575/BT/RS485	SMR-MPPT2075/BT/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	14.0~14.8V/28.0~29.6V(Default: 14.5/29.0V@25°C, Programmable)		
		Equalization Voltage	14.0~15.0V/28.0~30.0V(Default: 14.8/29.6V@25°C, Liquid/AGM, Programmable)		
		Float Voltage	13.0~14.5V/26.0~29.0V(Default: 13.7/27.4V@25°C, Programmable)		
		Low Volt. Disconnect	10.8~11.8V/21.6~23.6V; SOC1~5(Default: 10.8/21.6V, Programmable)		
		Reconnect Voltage	11.4~12.8V/22.8~25.6V(Default: 11.8/26.6V, Programmable)		
		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	(Battery Voltage + 1.0V)~Voc*0.9 *2			
	Max tracking efficiency	>99.9%			
Load	Output Current	10A	15A	20A	
System Parameters	Max charge conversion	96.5%	97.5%		
	Communication	Infared/BT/RS485			
	Self consumption	6~8mA			
	Dimensions	81*85.8*23.1mm	145*85.8*30mm	145*95.8*42.5mm	
	Weight	260g	600g	730g	
	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