Lumiax
Magic your solar life

Smart-MPPT series

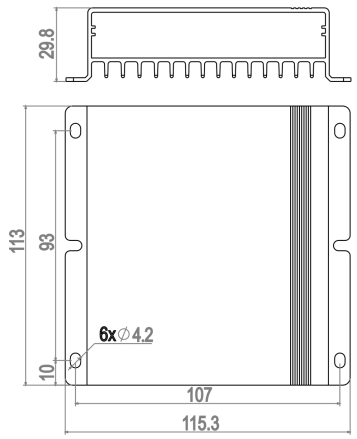
MPPT Solar charge controller

SMR-MPPT1060KH

MPPT | Auto 12V/24V | IP67 | Infrared remote control

Dimensions

Unit:mm



SMR-MPPT1060KH

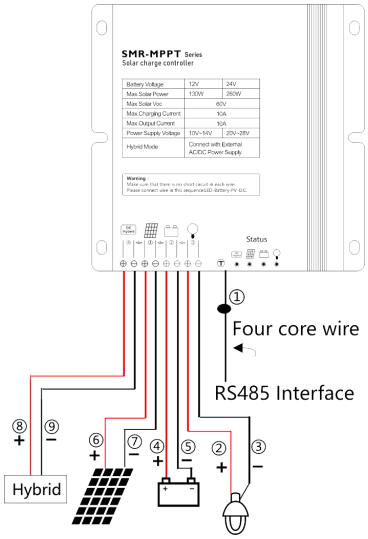
Functions

SMR-MPPT series solar controller, designed for the use of solar energy systems intelligent programming MPPT controller.The charging efficiency is about 20% higher than the traditional PWM controller, which can drop the cost of the whole system.

- Innovative Maximum Power Point Tracking(MPPT) technology, tracking efficiency >99.9%.
- High charge conversion efficiency up to 97.2% .
- Monitoring of the running status and parameters.
- Dual automatic limit function for rated charging current and charging power.
- Clear and easy to understand charging and discharging, fault indication.
- Suitable for Gel, Liquid, AGM and Lithium battery.
- External temperature sensor with automatic temperature compensation.
- Automatic over-temperature power reduction function .
- Four stage charging: MPPT, boost, equalization, float.
- When BMS power off because of LVD, it can activate the system automatically.
- The battery and mains power (DC) complement each other, and the load power supply priority can be set. The controller automatically switches between the two according to the setting to ensure the normal operation of the load.
- 0℃ Charging Protection(Lithium).
- Based RS-485 standard Modbus protocol.
- Equipped with buttons and digital tubes for quick setting of controller parameters.
- The communication interface provides external power supply.
- Waterproof IP67, Strong and durable aluminum case.
- Perfect EMC & thermal design.
- Full automatic electronic protect function

Electrical connection diagram

The following diagrams provide an overview of the connections and the proper order.



Female connector

Num	Wire	RS485
1	Black	GND
2	Blue	RS485-A
3	Green	RS485-B
4	Brown	B+

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

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Technical Data

	Item		SMR-MPPT1060KH	SMR-MPPT1060KH-RS485
Battery Parameters	Max Charging Current		10A	
	System Voltage		12V/24V automatical recognization	
	Battery Type		Lithium, Liquid, Gel, AGM (Programmable, default: Gel)	
	Liquid, Gel and AGM	MPPT Charging Voltage	<14.5/29.0V@25℃	
		Boost Voltage	14.0~14.8V/28.0~29.6V(Default: 14.5/29.0V@25℃, Programmable)	
		Equalization Voltage	14.0~15.0V/28.0~30.0V(Default: 14.8/29.6V@25℃, Liquid/AGM, Programmable)	
		Float Voltage	13.0~14.5V/26.0~29.0V(Default: 13.7/27.4V@25℃, Programmable)	
		Low Volt. Disconnect	10.8~11.8V/21.6~23.6V(Default: 11.2/22.4V, Programmable)	
		Reconnect Voltage	11.4~12.8V/22.8~25.6V(Default: 12.2/24.4V, Programmable)	
		Overcharge Protect	15.5/31.0V	
		Temp. Compensation	-4.17mV/K per cell (Boost, Equalization)， -3.33mV/K per cell (Float)	
	Lithium	Charging voltage target	10.0~32.0V (Programmable)	
		Charging voltage recovery	9.2~31.8V (Lithium, Programmable)	
		Low voltage disconnect	9.0~30.0V (Lithium, Programmable)	
		Low voltage reconnect	9.6~31.0V (Programmable)	
		0℃ Charge Protection	Yes, No, Slow(Lithium, default: Yes)	
	Max volt on Bat. Terminal		35V	
Panel Parameters	Max input power		130/260W	
	Max volt on PV terminal *1		60V	
	Dusk/Dawn detect volt.		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%	
Mains	Mains mode		External DC/AC power supply	
	Power supply voltage		10V~14V(12V system); 20V~28V(24V system)	
Load	Output Current		10A	
System Parameters	Communication mode		/	RS485
	Power supply priority		A Mains priority, b battery priority (default b, programmable)	
	Max charge conversion		97.2%	
	Self consumption		12~24mA	
	Dimensions		113*115.3*29.8mm	
	Net Weight		516g	
	Ambient temperature		-35~+60℃	
	Ambient humidity		0~100%RH	
	Protection degree		IP67	

*1.This value represents the maximum voltage of the solar panel at the minimum operating ambient temperature.

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

*3.Around oblique line value separately on behalf of 12V and 24V system's value.