

MPPT-DC series

MPPT Solar charge controller



MPPT0850-DCLi



MPPT0875/1050-DCLi



MPPT1575/2075-DCLi



MPPT***-DCLiR

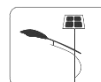


MPPT***-DCLiV

Description of Function

MPPT-DC series intelligent MPPT solar controller is programmable and especially for boost mode LED solar street light system. It includes constant current driver function. The charging efficiency is about 20% higher than the traditional PWM controller, which can drop the cost of the whole system.

- 5 stages time and dimming can be adjusted
- AGM, Liquid, GEL and Lithium battery for selection
- 0°C Charging Protection(Lithium)
- Remote Unit to configure, with LCD display
- Infrared sensor and microwave sensor are optional.
- Innovative Max Power Point Tracking(MPPT) technology, tracking efficiency >99.9%
- Full digital technology, high charge conversion efficiency up to 97.5%, discharge conversion efficiency up to 96.5%
- Can output constant current (output current can be set)
- Can read parameters and running status
- If battery voltage is low, it can be set to dimming
- Dimming start voltage and percentage can be set
- Day/Night threshold can adjust automatically
- When BMS power off because of LVD, it can activate the system automatically
- External temperature sensor, automatic temperature compensation(AGM, Liquid and GEL)
- Four stages charge way: MPPT, boost, equalization, float
- IP67, Strong and durable aluminum case Full automatic electronic protect function



MPPT

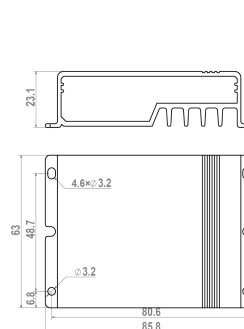


IP67

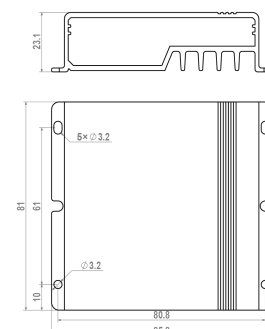


Dimensions

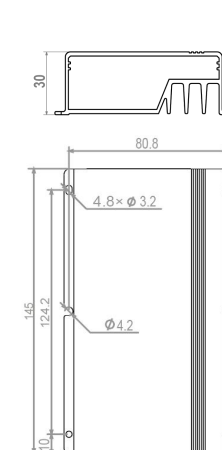
Unit:mm



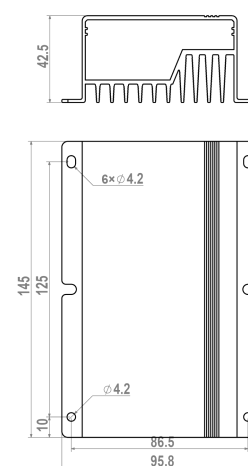
MPPT0850-DCLi



MPPT0875/1050/1550-DCLi

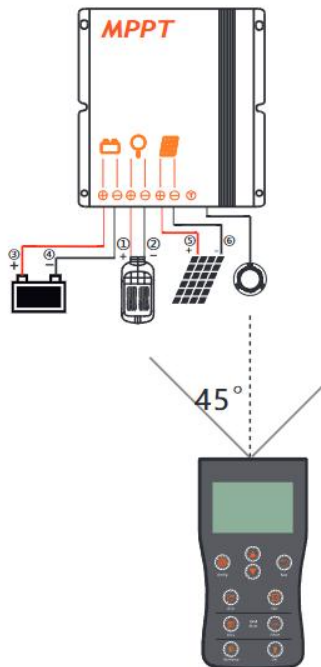


MPPT1575-DCLi



MPPT2075-DCLi

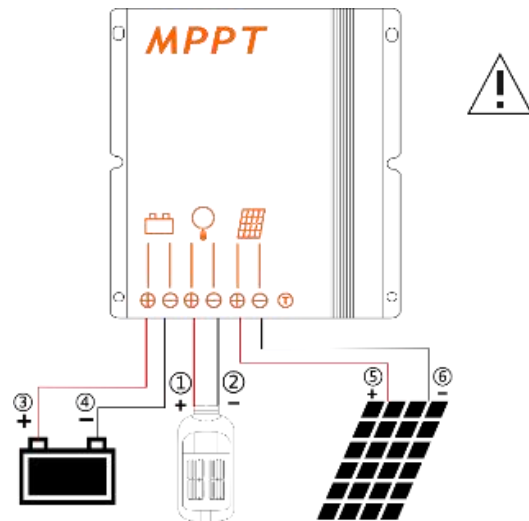
Remote controller



Setting can be changed using the "SU10G" infrared remote programmer. For detailed instructions and settings, please see the SU10G programmer remote manual.

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

Hot plugging is prohibited!
Please connect the inductive sensor to R series controller first!



Technical Data

	Item	Standard product	MPPT0850-DCLi	MPPT0875-DCLi	MPPT1050-DCLi	MPPT1550-DCLi
		Suffix description	G: 2.4G wireless remote control (default infrared remote control without suffix); R: Infrared sensing; V: Microwave induction; GV: 2.4G remote control+microwave induction; GR: 2.4G remote control+infrared sensing; RS485: 485 communication; IoT: Internet of Things communication; TTL: TTL communication			
Battery Parameters	System Voltage		12V			
	Max Charging Current		8A		10A	15A
	Max volt on Bat. Terminal		25V			
	Battery Type		Liquid, Gel, AGM and Lithium(Programmable, default: Lithium)			
	Liquid, Gel, AGM	MPPT Charging Voltage	<14.5V@25℃			
		Boost Voltage	14.5V @25℃			
		Equalization Voltage	14.8V @25℃ (Liquid, AGM)			
		Float Voltage	13.7V @25℃			
		Low Volt. Disconnect	10.8~11.8V(Programmable)			
		Reconnect Voltage	11.4~12.8V(Programmable)			
		Overcharge Protect	15.5V			
		Temp. Compensation	-4.17mV/K per cell (Boost, Equalization), -3.33mV/K per cell (Float)			
	Lithium	Charging voltage target	10.0~17.0V(Programmable, default: 14.4V)			
		Charging voltage recovery	9.2~16.8V(Programmable, default: 14.0V)			
		Low voltage disconnect	9.0~15.0V(Programmable, default: 10.8V)			
		Low voltage reconnect	9.6~16.0V (Programmable, default: 11.8V)			
		0℃ Charging protection	Yes, Slow, No(Programmable)			
Panel Parameters	Max volt on PV terminal *1		35V	60V	45V	35V
	Max input power		100W~120W		120W~150W	180W~225W
	Dusk/Dawn detect volt.		3.0~8.0V (Programmable)			
	Day/Night delay time		0~30min (Programmable)			
	MPPT tracking range		(Battery Voltage +1.0V) ~Voc*0.9 *2			
Load Parameters	Output Power		1~50W	1~60W		1~80W
	Output Voltage		20~35V	20~55V	20~45V	20~35V
	Current setting range		0.15~3.0A(Programmable)			
	Min current		100mA(Dimming)			
	Current precision		±2%			
	Dimming		0~100%(Programmable)			
	Voltage of start dimming		11.8~12.5V(Gel,AGM and Liquid); 10.0~17.0V(Lithium)			
	Dimming percentage		1~20%(Programmable)			
System Parameters	Max tracking efficiency		>99.9%			
	Max charge conversion		96.5%			
	Max LED driver efficiency		96%			
	Communication mode		Infrared			
	Induction mode		Infrared Human Sensing/Microwave Sensing			
	Self consumption		6~25mA			
	Dimensions		63*85.8*23.1mm	81*85.8*23.1mm		
	Weight		230g	260g		
	Ambient temperature		-35~+60℃			
	Ambient humidity		0~100%RH			
	Protection degree		IP67			
	Max Altitude		4000m			

*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

Technical Data

	Item	Standard product	MPPT1575-DCLi (Select/R/V)	MPPT2075-DCLi (Select/R/V)
		Suffix description	G: 2.4G wireless remote control (default infrared remote control without suffix); R: Infrared sensing; V: Microwave induction; GV: 2.4G remote control+microwave induction; GR: 2.4G remote control+infrared sensing; RS485: 485 communication; IoT: Internet of Things communication; TTL: TTL communication	
Battery Parameters	System Voltage		12V/24V automatical recognition *1	
	Max Charging Current		15A	20A
	Max volt on Bat. Terminal		35V	
	Battery Type		Liquid, Gel, AGM and Lithium (Programmable, default: Lithium)	
	Liquid, Gel, AGM	MPPT Charging Voltage	<14.5/29.0V@25°C	
		Boost Voltage	14.5/29.0V @25°C	
		Equalization Voltage	14.8/29.6V @25°C (Liquid, AGM)	
		Float Voltage	13.7/27.4V @25°C	
		Low Volt. Disconnect	10.8~11.8V/21.6~23.6V (Programmable)	
		Reconnect Voltage	11.4~12.8V/22.8~25.6V (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, default: 14.4V)	
		Charging voltage recovery	9.2~31.8V (Programmable, default: 14.0V)	
		Low voltage disconnect	9.0~30.0V (Programmable, default: 10.8V)	
		Low voltage reconnect	9.6~31.0V (Programmable, default: 11.8V)	
		0°C Charging protection	Yes, Slow, No (Programmable)	
Panel Parameters	Max volt on PV terminal		55V *2	
	Max input power		200W/400W	260W/520W
	Dusk/Dawn detect volt.		3.0~20.0V (Programmable)	
	Day/Night delay time		0~30min (Programmable)	
	MPPT tracking range		(Battery Voltage +1.0V)~Voc*0.9 *3	
	Output Power		10~90W/20~180W	
Load Parameters	Output Voltage		20~55V/30~55V	
	Current setting range		0.15~6.0A (Programmable)	
	Min current		100mA (Dimming)	
	Current precision		±2%	
	Dimming		0~100% (Programmable)	
	Voltage of start dimming		11.8~12.5V/23.6~25.0V (Gel,AGM and Liquid); 10.0~32.0V (Lithium)	
System Parameters	Dimming percentage		1~20% (Programmable)	
	Max tracking efficiency		>99.9%	
	Max charge conversion		0.975	
	Max LED driver efficiency		0.965	
	Communication mode		Infrared	
	Induction mode		Infrared Human Sensing/Microwave Sensing	
	Self consumption		6-25mA	
	Dimensions		85.8*145*30mm	95.8*145*42.5mm
	Weight		550g	720g
	Ambient temperature		-35~+60°C	
	Ambient humidity		0~100%RH	
	Protection degree		IP67	
	Max Altitude		4000m	

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

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

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