

MPPT-DC series

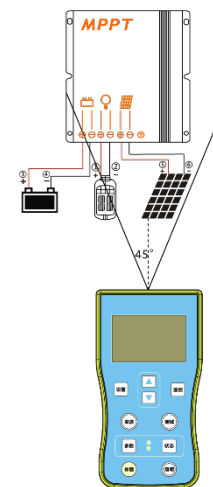
MPPT Solar charge controller



- 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



Remote controller



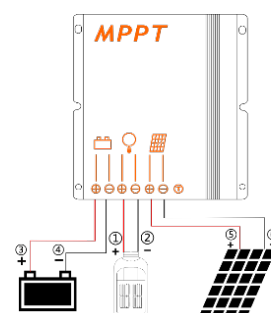
Setting can be changed using the "S/SG-Unit" infrared remote programmer. For detailed instructions and settings, please see the S/SG-Unit programmer remote manual.

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.

- 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

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	MPPT0850-DCLi	MPPT0875-DCLi	MPPT1050-DCLi	
Battery Parameters	System Voltage	12V			
	Max Charging Current	8A		10A	
	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°C		
		Boost Voltage	14.5V @25°C		
		Equalization Voltage	14.8V @25°C (Liquid, AGM)		
		Float Voltage	13.7V @25°C		
		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: 12.6V)		
		Charging voltage recovery	9.2~16.8V(Programmable, default: 12.4V)		
		Low voltage disconnect	9.0~15.0V(Programmable, default: 9.0V)		
Low voltage reconnect		9.6~16.0V (Programmable, default: 9.8V)			
0°C Charging protection		Yes, Slow, No(Programmable)			
Panel Parameters	Max volt on PV terminal *1	35V	60V	45V	
	Max input power	100W~120W		120W~150W	
	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		
	Output Voltage	20~35V	20~58V	20~45V	
	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%			
	Self consumption	6mA	9mA	6mA	
	Dimensions	85.8*63*23.1mm	85.8*81*23.1mm		
	Weight	230g	260g		
	Ambient temperature	-35~+60°C			
	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	MPPT1575-DCLi	MPPT2075-DCLi	
Battery Parameters	System Voltage	12V/24V automatical recognition		
	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: 12.6V)	
		Charging voltage recovery	9.2~31.8V (Programmable, default: 12.4V)	
		Low voltage disconnect	9.0~30.0V (Programmable, default: 9.0V)	
Low voltage reconnect		9.6~31.0V (Programmable, default: 9.8V)		
0°C Charging protection		Yes, Slow, No (Programmable)		
Panel Parameters	Max volt on PV terminal *1	55V		
	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 *2	(Battery Voltage +1.0V)~Voc*0.9		
Load Parameters	Output Power	10~90W/20~180W		
	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)		
	Dimming percentage	1~20% (Programmable)		
System Parameters	Max tracking efficiency	>99.9%		
	Max charge conversion	0.975		
	Max LED driver efficiency	0.965		
	Self consumption	6mA		
	Dimensions	85.8*145*30mm	85.8*145*42.5mm	
	Weight	600g	720g	
	Ambient temperature	-35~+60°C		
	Ambient humidity	0~100%RH		
	Protection degree	IP67		
Max Altitude	4000m			

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Technical Data

	Item	MPPT2050-DC32Li	MPPT3050-DC32LiG
Battery Parameters	Max Charging Current	20A	30A
	MPPT Charging Voltage	<Charging target voltage	
	Charging voltage target	3.0~5.0V (Programmable)	
	Charging voltage recovery	2.9~4.9V (Programmable)	
	Low voltage disconnect	2.4~4.0V (Programmable)	
	Low voltage reconnect	2.6~4.2V (Programmable)	
	Battery Type	Lithium	
	0°C Charging protection	Yes, Slow, No (Programmable)	
	Max volt on Bat. Terminal	10V	
Panel Parameters	Max volt on PV terminal *1	25V	34V
	Max input power	65W	100W
	MPPT tracking range *2	(Vb+1.0V) ~Voc*0.9	
	Dusk/Dawn detect volt.	1.0~3.0V (Programmable)	
	Day/Night delay time	0~30min (Programmable)	
Load Parameters	Output Current	0.1~1.5A (Programmable)	0.1~3A (Programmable)
	Output Voltage	12~34V	
	Output power	1~25W	10~60W
	Min Current	50mA (Dimming)	
	Current precision	±2%	
	Dimming	0~100% (Programmable)	
	Auto dimming	Yes, No (Programmable)	
	Voltage of start dimming	2.8~Charging target voltage (Programmable)	
System Parameters	Dimming percentage	5~40% (Programmable)	
	Max tracking efficiency	>99.9%	
	Max charge conversion	93.0%	95.0%
	Max LED driver efficiency	93.0%	95.0%
	Self consumption	< 23mA@3.2V	50mA@3.2V
	Dimensions	85.8*81*23.1mm	112*76*30mm
	Weight	280g	450g
	Ambient temperature	-35~+60°C	
	Ambient humidity	0~100%RH	
	Protection degree	IP67	
Max Altitude	4000m		

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*3.The product without tail is infrared communication,Model name + "G", means 2.4G communication