

MPPT-DC series

MPPT Solar charge controller



MPPT

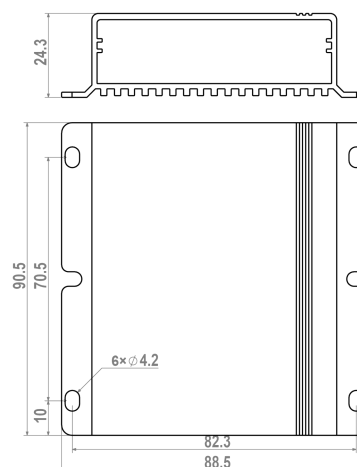


IP67

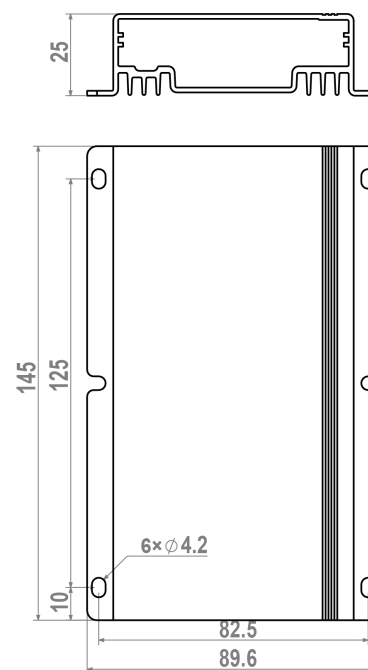


Dimensions

Unit:mm



MPPT2030-DC40



MPPT3030-DC60

Description of Function

MPPT-DC series intelligent MPPT solar controller is programmable and especially for boost mode LED solar street light system.

It comes with some outstanding features, such as:

- Innovative MPPT technology, tracking efficiency >99.9%
- Full digital technology, conversion efficiency up to 92.5%
- Can output constant current
- 5 stages time and dimming can be adjusted
- 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
- Suitable for single, two Lithium battery
- Auto sleeping during transportation
- Low temperature charging protection
- When BMS power off because of LVD, it can activate the system automatically
- Charging target voltage and recovery voltage can be set
- Remote Unit to configure, with LCD display
- IP67, Strong and durable aluminum case
- Full automatic electronic protect function

Installation

Electrical connection diagram

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

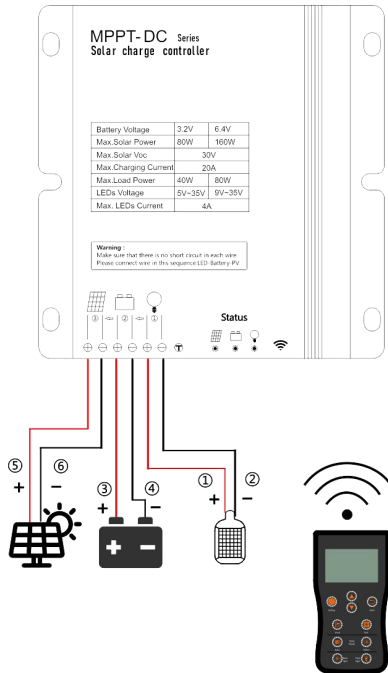


Figure 1. 2.4G remote control communication

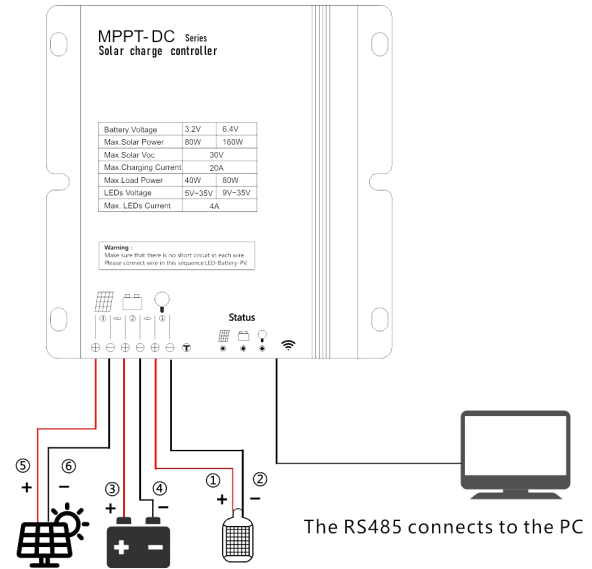


Figure 2. RS485 communication

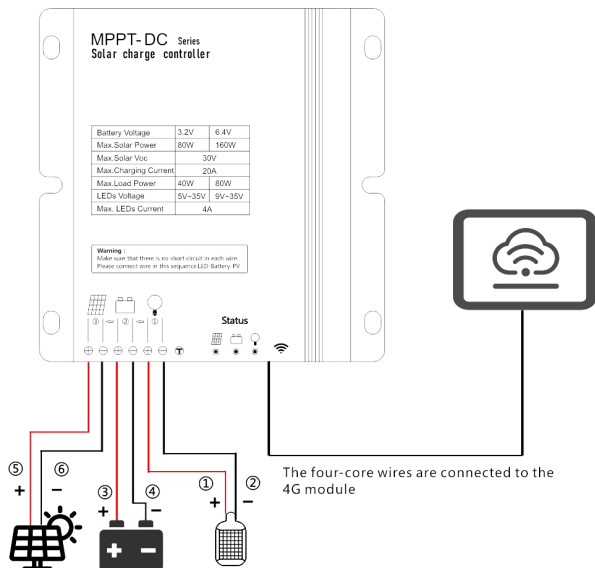


Figure 3. 4G IoT module communication

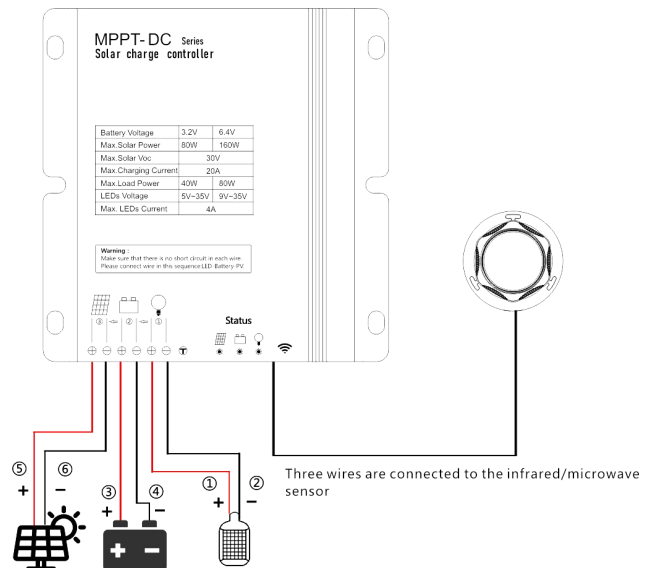


Figure 4. Infrared/microwave induction

Technical Data

	Standard product	MPPT2030-DC40G	MPPT3030-DC60G
	Item	Suffix description *1 G: 2.4G wireless remote control ; 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	Max Charging Current	20A	30A
	MPPT Charging Voltage	<Charging target voltage	
	Charging voltage target	3.0~9.0V (Programmable,default: 3.6V)	
	Charging voltage recovery	2.9~8.9V (Programmable,default: 3.4V)	
	Low voltage disconnect	2.4~7.2V (Programmable,default: 2.6)	
	Low voltage reconnect	2.6~7.4V (Programmable,default: 3.0)	
	Battery Type	Lithium	
	0°C Charging protection	Yes, Slow, No (Programmable,default: Yes)	
	Max volt on Bat. Terminal	10V	
Panel Parameters	Max volt on PV terminal	13~30V	
	Max input power	80W/3.2V; 160W/6.4V	100W/3.2V
	MPPT tracking range	(Vb+1.0V) ~Voc*0.9 *2	
	Dusk/Dawn detect volt.	1.0~7.0V (Programmable,default: 5.0V)	
	Day/Night delay time	0~30min (Programmable,default: 0 min)	
Load Parameters	Output Current	0.1~4A (Programmable,default: 0.3A)	
	Output Voltage	9~35V	
	Output power	40W/3.2V; 80W/6.4V	60W/3.2V
	Min Current	100mA	
	Current precision	±2%	
	Dimming	0~100%	
	Auto dimming	Yes, No(Programmable,default: Yes)	
	Voltage of start dimming	2.8~Charging target voltage (Programmable,default: 3.3V)	
	Dimming percentage	0~40% (Programmable,default: 20%)	
System Parameters	Max tracking efficiency	>99.9%	
	Max charge conversion	92.5%	
	Max LED driver efficiency	91.5%	
	Self consumption	< 40mA@3.2V	
	Dimensions	90.5*88.5*24.3mm	145*89.6*25mm
	Net weight	307g	546g
	Ambient temperature	-35~+60°C	
	Ambient humidity	0~100%RH	
	Protection degree	IP67	
	Max Altitude	4000m	

*1.R/V cannot be configured for RS485 communication.

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