OLYS

Lithium Battery
MPPT Solar Charge Controller
---with built in LED Driver

User Manual
MPPTSL10-LI

Overview

1. Syste voltage： 12V。

2. Using the latest MPP charging technology, charging efficiency increased by 10-30%

2. LED Max.power ： 100W.　Max.PV voltage： 50V

3. Build-in LED driver，Maximum conversion efficiency of 98%.

4. With 4 period of work mode. Each period power adjustable, the range of 0-100%, accuracy of 10%

5. With infrared remote control function, all parameters can be used to set the LCD remote control

7. With temperature compensation function

9. With overcharge, over discharge, short circuit, overload protection, anti-reverse

   protection ; the above protection does not damage any parts.

Safety Information

Read all of the instructions in the manual before installation.

☐ DO NOT disassemble or attempt to repair the controller.

☐ Install external fuse or breaker as required.

☐ Do disconnect the solar module and fuse/ breakers near to battery before installing or moving the controller.

☐ Power connections must remain tight to avoid excessive heating from a loose connection.

☐ Only charge batteries that comply with the parameters of controller.

☐ Battery connection may be wired to one battery or a bank of batteries.

☐ Risk of electric shock, the PV and load can produce high voltages when the controller is working.
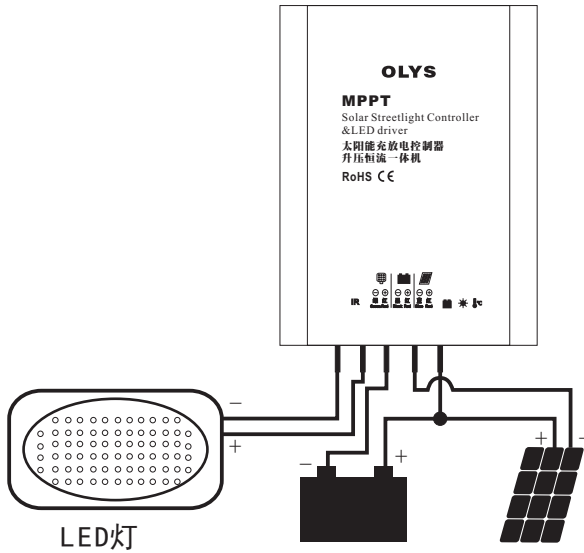
Installation

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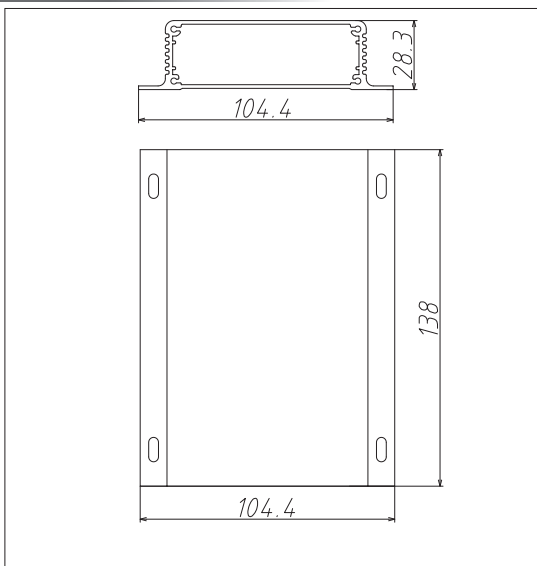
Note：

1. Install in the room to do rain prevention measures

2. It is recommended that the battery and the controller

   be installed in the same place

3. The controller can only be used in solar photovoltaic systems,

   can not be used for wind power, gasoline power generation

Connect

LED灯

Wiring method

1. Wiring sequence: first take the battery, set the load of the work mode, - then connected to the solar panel - the final load

2. Wire diameter: minimum 2 square millimeters

3. When wiring, prohibit positive and negative short circuit, reverse. If two or more errors at the same time, may lead to damage to the controller

4. Ensure that all terminals are in reliable contact.

Status Indicator

☀ Charge	Green	off	PV<5V, night
	Green	on	no charging
	Green	Slow flash（1Hz）	charging
	Green	fast flash（4Hz）	PV overvoltage
🔋 Battery	Green	on	Voltage normal
	Green	Slow flash（1Hz）	Full
	Green	fast flash（4Hz）	Over voltage
	Orange	Slow flash（1Hz）	Overload or short circuit
	Orange	ON	under voltage
	Red	ON	Over discharge
	Red	Slow flash（1Hz）	Low-voltage
	Red	fast flash（4Hz）	Battery Overheating
PV green and Battery orange		fast flash（4Hz）	Over-temperature protection or communication

Instructions

1. The controller can be applied to LiFePO4 and lithium battery. You can use the remote control to select the appropriate battery

2. Temperature protection function:

   When the external ambient temperature> 65 ℃, charging stops. When the temperature dropped to 55 ℃ when the recovery charge

   When the internal temperature of the controller is> 80 ° C, the charging is stopped. When the internal temperature drops to 70 ° C,

3. Load output with self-power down function, when the battery voltage is insufficient, automatically reduce the power output to ensure that the use of LED lights

4. PV voltage 5V, delay 10 minutes to open the load

5. PV voltage 6V, delay 5 minutes load off

6. The controller is only applicable to the street lamp controller. During the day can only charge, can not discharge. That is, discharge and charging can not be carried out at the same time

Setting

Work parameter with LCD remote control to set, the use of wireless infrared transmission,
set the parameters after a key to send.

How to use the remote control

1. Before the work parameter is set,do not connect load , if the load is connected, the default parameters
   of the controller may not match.Causing the street light to be damaged

2. Set the parameters on the remote control, and then align the controller's infrared receiver by "send",
    hear "drop" one sound, said the transmission was successful, and then connect load
3. Remote control use 2 AA batteries, long time no use, please remove the battery

Function Description

"Read" :   short press button, hear one "di" , Read success.
"battery type" : short press button, Seleect the battery number:
                   1: ternary battery   2: LiFeSO4
"TEST" :   short press button, the Load word 2 minutes
"Luck/unlock" :   luck /unluck the remot controller
"Work period" :   set work period。the 4 period is moning work time
"Time/current": Set the operating current and working hours for each work period.
"+"/"-"   :   Increase and decrease
"send"   :   short press button, "di" one sound is successful. "dididi" three
                 sound is fail
"POWER"   :   long press button, Powr is ON or OFF

Technical Specifications

model	MPPTSL10-LI	
Reted charge current	10A	
nominal system voltage	12V	
Max .PV power	130W	
Max. LED power	100W	
Max. Load current	3.3A	
Load output voltage	battery+2V~60V	
Overload,shortcircuit	Yes	
Battery type:	LiFeSO4	Ternary lithium
Rate voltage	12.8V	11.1V
HVD	16V	13.5V
Boost voltage	14.6V	12.5V
float voltage	14.4V	12.4V
HVD reconnect voltage	13.2V	12V
LVD reconnect voltage	12.8V	10.8V
LVD	10.5V	9.3V
Charge mode	MPPT	
Temperature compensation	-3mv/℃/2V	
Overheating protection	YES	
size	138*104*28.5mm	
weight	620g	
IP rating	Ip68	
remote control	Infrared remote control(optional)	