

SOLAR CONTROLLER

User-Manual



Model No.: TLL0315LI-B

1. DESCRIPTION

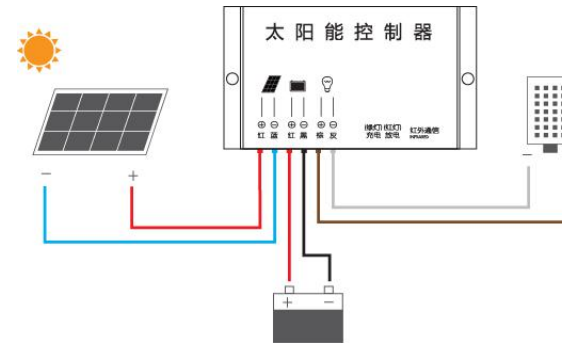
TLL0315LI-B is integrated with LED driver. The maximum conversion efficiency reaches 95%. The output current can be adjusted for 4 time frames. It is suitable for single series Li ion/LifePo4 Lithium Battery.

2. FEATURES

- 1) Internal constant current drive power, conversion efficiency of more than 95%;
- 2) Suitable for both Li ion and LifePO4 single cell Lithium battery;
- 3) Automatically adjust the power of load according to the left capacity of battery;
- 4) The controller has a function of automatic time controlling at dusk and dawn, according to different seasons;
- 5) With the function of 4 time frames power regulation, Users can set the working current of LED lights;

- 6) The controller adopts fully sealed waterproof design. The IP grade reaches IP67;
- 7) Flexible and adjustable working parameter makes the controller adapt to different solar systems;
- 8) This controller can withstand from -35°C to 60°C high and low temperature.

3. INSTALLATION



- 1) Firstly, connect the positive and negative poles of load to the right red and the right black wires;
- 2) Next, connect the positive poles of solar panel and battery to the left red wire;
- 3) And then, connect the negative pole of battery to the left black wire. At the moment, the idle indicator light (the left green light) is lit up. About one minute later, the load is turned on, and the controller is switched to the discharging mode;
- 4) Finally, connect the negative pole of the solar panel to the blue wire. About one minute later, the charging indicator light (the middle green light) is lit up, and the controller is switched to the charging mode. If wire connection is made at night, the controller will not be switched to the charging mode, but keep the discharging mode until the end of discharging time of the controller;
- 5) After the wire connection, please wrap the joints in waterproof tape to prevent them from water.

4. NOTES

- 1) The controller is wide voltage output. Before using the controller, make sure the LED light can match the controller.
- 2) Please connecting wires in order. Wrong wire connection lead to system's misjudgment and controller's damage.

5. INDICATORS

State	Idle (green)	Charge (green)	Discharge (red)	Remarks
Idle	On	Off	Off	Normal
Charge	Off	On	Off	Normal
Discharge	Off	Off	On	Normal
finish discharging	On	On	Off	Normal
output end over power protection	Off	On	Slow flicker	Abnormal. Check whether the parameters settings are reasonable. Whether output power is less than 30W.
Low voltage of Battery	On	On	Slow flicker	Normal
output end open circuit protection	On	On	Fast flicker	Abnormal. Check whether the lamp is connected right.
output end short circuit protection	Off	Off	Fast flicker	Abnormal. Check whether the lamp is connected right.
Abnormal input voltage protection	On	Fast flicker	Off	Abnormal. Check whether wiring is correct.
Over current protection of charging	Off	Slow flicker	Off	Abnormal. Check whether solar panel is out of the range of this model.
wrong model	Fast flicker	Fast flicker	Fast flicker	Reset right model No.

6. SPECIFICATIONS

Model	TLL0315LI-B
Working voltage	DC2V~5V
Output voltage	≤3.3V
Max. charging current	12A
Max. conversion efficiency	95%

Max. output power	25W
Output current error	±3%
Output current	300mA - 8000mA (programmable)
Max. solar panel	90W
Max. solar panel voltage	DC8V
Working temperature	-35℃ ~ 60℃
Charging mode	PWM
Working mode	Light controlling, time controlling, output current adjustable in 4 time intervals
Over-charging protection voltage	DC2V~5V (programmable)
Under voltage protection	DC2V~5V (programmable)
Exit under voltage protection	DC2V~5V (programmable)
Light turn-on Voltage	DC1V~5V (programmable, preset 1.0V)
Weight	100g
Size	40mm×77mm×18mm

7. APPLICATION

Li ion/LifePO4 one single cell in Series Lithium Battery: Solar LED light with max. 20W LED light (The circuit of LED should be 1 series)

8. SAFETY AND PROTECTION

Lightning protection, overcharge and over discharge protection, reverse polarity protection, reverse current protection at night, output end protection(short circuit and over current), and over temperature protection.

9. WARRANTY

Three years since the date of ex-factory.