# MPPT Solar Charge Controller with built-in LED Driver



# **Tracer-BPL** series

The Tracer-BPL series lithium battery MPPT solar charge controller combines solar charge controller and LED constant current driver into one unit which is ideal for solar LED Lighting, especially when dimmer function is needed. The advanced Maximum Power Point Tracking charging methods enables the system charging and discharging management to obtain the most radical optimization. Increase the system flexibility, yet lower down the system cost.

#### Models:

 Tracer2606BPL / Tracer2610BPL
 12/24VDC
 10A

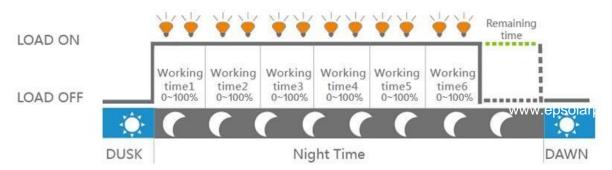
 Tracer3906BPL / Tracer3910BPL
 12/24VDC
 15A

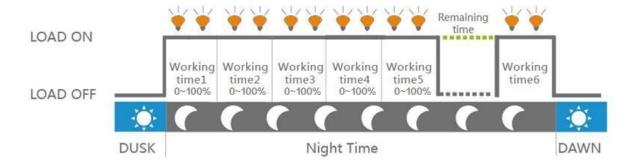
 Tracer5206BPL / Tracer5210BPL
 12/24VDC
 20A

#### Features:

- · Adopt high quality components of ST,IR and Infineon, make sure product using lifespan
- Wide working environment temperature(-40°C~60°C)
- Apply to lithium battery(LiFePO4/Li-NiCoMn)and battery(Sealed/Gel/Flooded)
- Lithium battery self-activating and low temperature protection function
- Maximum conversion efficiency of 98%
- Advanced Maximum Power Point Tracking (MPPT) technology, with tracking efficiency no less than 99.5%
- Ultra-fast tracking spee

- Accurately recognizing and tracking of multiple power points
- Digital precision constant current control and the control accuracy are less than ±2%
- Load reduce power automatically
- Maximum output efficiency of 96%
- PV and Load power limitation function
- The output current can be adjusted among the rated power and current range
- Monitoring and setting parameter via Mobile APP, PC Monitor setting software with RS485 communication interface.
- Use of standard Modbus communication protocol for RS485 bus connections, communication protocol compatibility much better
- Connecting the IOT(Internet of Things) module and Cloud Server monitoring software to realize remote monitoring of the multi-machine system
- The RS485 connector can provide power supply
- · Aluminum housing for better cooling
- Real-time energy statistics function
- IP67 waterproof degree
- Long lifespan design, five years warranty





## Load working mode:

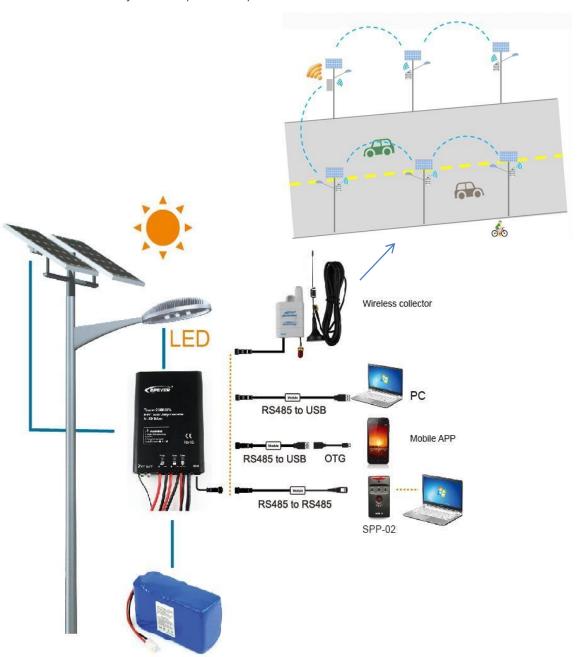
- Manual Mode
- Light ON/OFF(Default)

• Light ON + Timer

- Real-time Control
- Intelligent Power Mode

## **Electronic protections:**

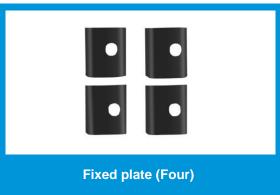
- PV reverse polarity protection
- Battery over Voltage protection
- · Battery overheating protection
- Lithium battery low temperature protection
- Battery reverse polarity protection
- Battery over discharge protection
- · Load short circuit protection



### **Optional accessories:**







#### PC software:



#### **Mobile APP**



\* Free download from website for PC software and APP.

# **Technical specifications**

Model	Tracer2606BPL	Tracer3906BPL	Tracer5206BPL
	Tracer2610BPL	Tracer3910BPL	Tracer5210BPL
Nominal system voltage	12/24VDC Auto (Lithium battery no rated voltage level)		
Rated charge current	10A	15A	20A
Rated charge power	130W/12V 260W/24V	195W/12V 390W/24V	260W/12V 520W/24V
Max. PV open circuit voltage	Tracer**06BPL: 60V at minimum operating environment temperature 46V at 25°C environment temperature Tracer**10BPL: 95V at minimum operating environment temperature 92V at 25°C environment temperature		
MPP Voltage range	Tracer**06BPL: (Battery voltage+2V)~36V Tracer**10BPL: (Battery voltage+2V)~72V		
Max. output current	3.3A	4.5A	6.6A
Max. output power	100W	130W	200W
Output voltage range	Tracer**06BPL: ( Max. battery voltage+2V)~58V Tracer**10BPL: ( Max. battery voltage+2V)~80V		
Load open circuit voltage	Tracer**06BPL: 58V, Tracer**10BPL: 80V		
Load over voltage protection	Tracer**06BPL: 63V, Tracer**10BPL: 100V		
Maximum output efficiency	96%		
Output current control accuracy	≤2%		
Battery type	Sealed / Gel / Flooded ; LiFePO4 / Li-NiCoMn / User		
Equalize charging voltage*	Sealed:14.6V(12V),29.2V(24V) /Gel: No / Flooded: 14.8V(12V),29.6V(24V); No		
Boost charging voltage*	Sealed :14.4V(12V), 28.8V(24V)/ Gel:14.2V(12V), 28.4V(24V)/ Flooded:14.6V(12V), 29.2V(24V)/ LiFePO4:14.6V/ Li-NiCoMn:12.51V / User:9-34V		
Float charging voltage*	Sealed/Gel/Flooded:13.8V(12V),27.6V(24V) LiFePO4:14.4V / Li-NiCoMn:12.39V / User:9-34V		
Low voltage reconnect voltage*	Sealed/Gel/Flooded:12.6V(12V), 25.2V(24V) LiFePO4:12.0V / Li-NiCoMn:10.8V / User:9-34V		
Low voltage disconnect voltage*	Sealed/Gel/Flooded:11.1V(12V),22.2V(24V) LiFePO4:10.6V / Li-NiCoMn:9.3V / User:9-34V		
Self-consumption	≤15mA/12V;≤22mA/24V		
Communication	RS485		
Overall dimension	124×89×30mm	150x93.5x32.7mm	153.3x105x52.1mm
Net weight	0.54kg	0.73kg	1.18kg
Enclosure	IP67		
Working environment temperature	-40°C∼+60°C		

<sup>\*</sup> Programmable voltage value by SPP-02, PC and APP.



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