

Overview

Tracer Dream 50V series controller is based on advanced MPPT control algorithm, with LCD displaying running status. The MPPT control algorithm can minimize the maximum power point loss rate and loss time, quickly track the maximum power point of the PV array and obtain the maximum energy from solar modules under any conditions; and can increase the ratio of energy utilization in the solar system by 20%-30% compared with a PWM charging method. The newly designed screen adds the display of battery type and Bluetooth/WiFi, easy for customer to check.

Features

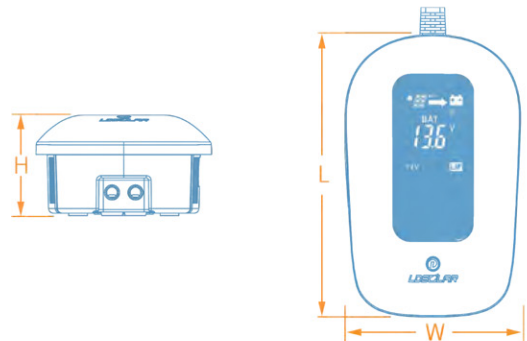
- With the advanced dual-peak or multi-peak tracking technology, when the solar panel is shadowed or part of the panel fails resulting in multiple peaks on the I-V curve, the controller is still able to accurately track the maximum power point.
- Advanced MPPT technology, with efficiency no less than 99.5%.
- Maximum DC/DC conversion efficiency of 98%.
- Ultra-fast tracking speed and guaranteed tracking efficiency.
- Advanced MPPT control algorithm to minimize the MPP loss rate and loss time.
- Limit charging power & current over rated range. When the solar panel power exceeds a certain level and the charging current is larger than the rated current, the controller will automatically lower the charging power and bring the charging current to the rated level.
- Support the lead-acid, gel, flooded with the needed Temp. compensation and support lithium batteries start from solar panel.
- Power reduction automatically over temperature range.
- Monitor and set the parameters via App (optional).



Mechanical size

Model	TD1105	TD2105
Charge and load current	10A	10A
Size (L×W×H)mm	120×75×43	120×75×43
Mounting hole size	Φ4mm	
Weight(g)	255	285
Terminal scale	6mm ² /10AWG	6mm ² /10AWG

● Please refer to the indicator diagram on the right

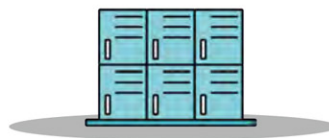


● Dimension reference drawing

Application scenario



Solar RV



Small outdoor
energy storage



Solar boat

Safety Protection



Over Charging Protection



Over Discharging Protection



Over Temperature Protection



Solar Reverse Connected Protection



EMC Protection



Battery Reverse Connected Protection



Power Limited Protection



Battery Over-Voltage Protection



Temperature Compensation



Thunder Protection



Reverse Flow of Current Protection



Solar Short Circuit Protection



Overheating Power Reduction Protection

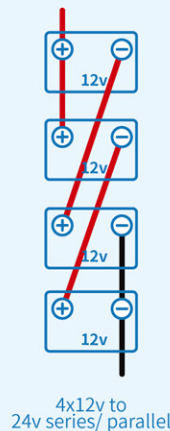
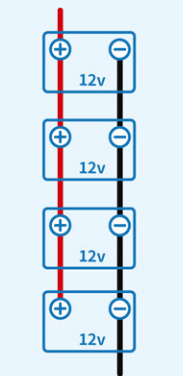
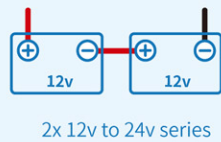
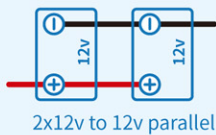


Solar Over-Voltage Protection

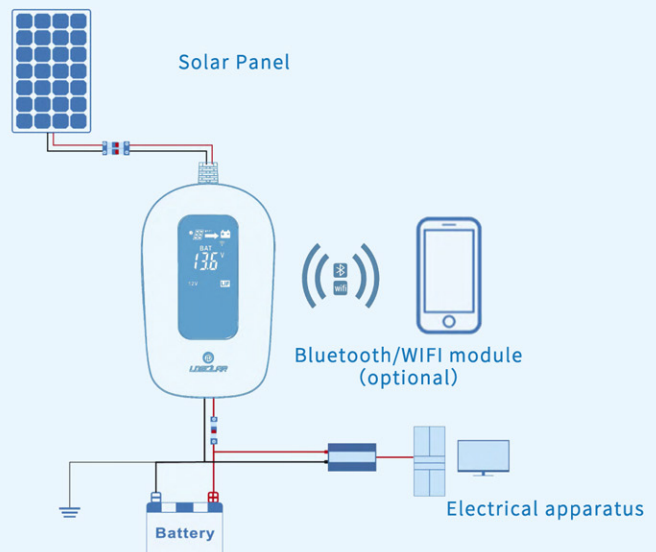
Technical specifications

Model	TD1105	TD2105
System nominal voltage	12V DC	12/24V DC Auto
Battery voltage range	8~15V	8~32V
Max. PV open circuit voltage	50V (Min.working temperature) 48V(25°C)	
MPP voltage range	(Battery voltage +1V)~45V	
Self-consumption	≤15mA(12V) ≤10mA(24V)	
Rated charge current	10A	10A
Rated discharge current	/	/
Rated charge power	130W/12V	130W/12V 260W/24V
Battery type	Sealed(Default)/Gel/Flooded/LiFePO4/ Li(NiCoMn)O2/ User	
LVD**	11.0V ADJ 9V...12V; ×2/24V;	
LVR**	12.6V ADJ 11V...13.5V; ×2/24V;	
Float Voltage**	13.8V ADJ 13V...15V; ×2/24V;	
Boost Voltage**	14.4V; ADJ 14V...17V; ×2/24V; Battery Voltage less than Boost Restart Voltage Start Boost changing for 2hours	
Battery Over Voltage Protection	16.5V; x2/24V; x4/48V	
USB Output	/	
Temperature compensate Coefficient	-4mv/°C/2V	
Relative humidity	≤95%, N.C.	
Working environment temperature	-20°C~+50°C(100% input and output)	
Storage temperature range	-20°C~+70°C	
Enclosure	IP30	

Connection



Example Wiring Methods



Connection diagram