

## Overview

Tracer Dream 150V TU Series adopts MPPT technology. Max. 150V solar input, 12V/24V/48V auto work. It's also ran by 32 bits CPU, so stability and speed can be guaranteed. Based on the synchronous rectifier technology, the transfer efficiency of circuit can be increased up to 98.5% and the Pmax tracking accuracy up to 99.5%. So our MPPT can trace the accurate Pmax in the shortest time (10~20s), even when the sunlight changes rapidly. It can perfectly handle extreme weather or weak sunlight. It adopted by common negative design and it can start from solar, Widely used in solar station and big solar home system.

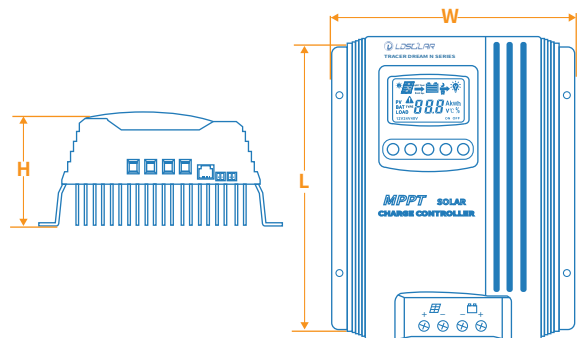
## Features

- Advanced MPPT technology, fast and stable track the Maximum Power Point, tracking accuracy 99.5%.
- Adopt Synchronous Rectification Technology, significantly improve the transfer efficiency of circuit, maximum 98.5%.
- With double peak or multi peak power tracking technology, when the solar panels is shaded or part of solar panels is damaged, multiple peaks will appear in the I-V curve, and the controller can still accurately track to the maximum power point.
- PV array limited input power function, to ensure that the controller dose not overload operation under any condition. When the power of solar panels is too high and the charging current is more than rated current, the controller automatically reduces the charging power to make it work under the rated power.
- Wide range of Maximum Power Point of PV array, Max PV input voltage 150V
- 12/24V/48VDC System voltage automatic recognition.
- Humanized LCD displaying, multi button combination operation, dynamic display operation data and working state
- Built-in operation log, account system working state
- Multi load control mode: Normal Mode, Sensor Mode, Timer and Sensor Mode
- 3 stages charging mode, Sealed, Gel, Flooded, Lithium several types battery charging procedure selection (After the lithium battery is selected, the system voltage will not be recognized automatically)
- Temperature Compensation Function (After the lithium battery is selected, there is no temperature compensation function)
- Accumulation function of charging and discharging, actual time display power generation function
- Fullest digital protection functions: Reverse connection, Overcharging, Over-discharging, Over voltage, Overload, Short circuit, Overtemperature.



## Mechanical size

Model	TD4515TU	TD4615TU
Charge and load current	50A	60A
Size (L×W×H)mm	277×243×103	277×243×103
Mounting hole size	Φ5mm	
Weight(kg)	3.9	4.5
Terminal scale	25mm <sup>2</sup> /4AWG	25mm <sup>2</sup> /4AWG



Please refer to the indicator diagram on the right

Dimension reference drawing

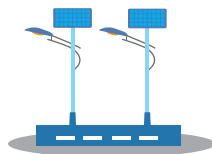
## Application scenario



Solar RV



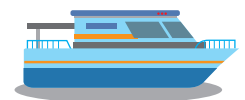
Household solar energy



Solar street lamp



Solar Power Generator



Solar boat

# Safety Protection



Over Charging Protection



Over Discharging Protection



Overload Protection



Short Circuit Protection



Solar Reverse Connected Protection



EMC Protection



Battery Reverse Connected Protection



Power Limited Protection



Battery Over-Voltage Protection



Temperature Compensation



Over Temperature Protection



Thunder Protection



Reverse Flow of Current Protection



Solar Short Circuit Protection



Overheating Power Reduction Protection

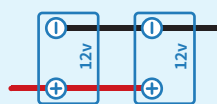


Solar Over-Voltage Protection

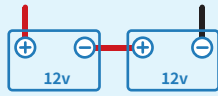
# Technical specifications

Model	TD4515TU	TD4615TU
System Voltage	12V/24V/48V DC auto	
Working voltage range	8-68V	
Max.PV open circuit voltage	150V (Min.working temperature) 140V (25°C)	
MPP voltage range	(Battery voltage+2V) ~125V	
Self-consumption	<2W	
Rated charge current	50A	60A
Rated discharge current	/	/
Max.PV input power	650W/12V 1300W/24V 2600W/48V	800W/12V 1600W/24V 3200W/48V
Grounding	Common negative	
Battery type	Sealed(Default)/Gel/Flood/Lithium	
LVD**	11.0V ADJ 9V...12V ; x2/24V ; x4/48V	
LVR**	12.6V ADJ 11V...13.5V ; x2/24V ; x4/48V	
Float Voltage**	13.8V ADJ 13V... 15V ; x2/24V ; M/48V	
Boost Voltage**	14.4V ADJ 13V...17V ; x2/24 ; x4/48V battery voltage less than 12.6v auto boost 2hours	
Battery Over Voltage Protection	16.5V ; x2/24V ; x4/48V	
USB Output	/	
Temperature Consumption#	For 12Vsystem:-24mV /°C ; x2/24V ; x4/48V	
RS485 interface	√	
Relative humidity	≤95%, N.C.	
WorkingTemperature	-20°C~+50°C(Product can work continuously at full load)	
LCD temperature range	-20°C~+70°C	
Waterproof grade	IP32	

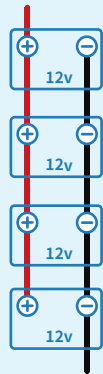
# Connection



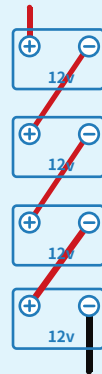
2x12v to 12v parallel



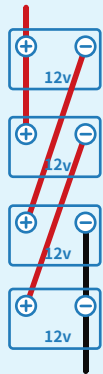
2x 12v to 24v series



4x12v to 12v parallel



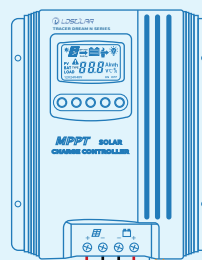
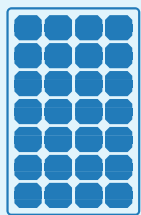
4x12v to 48v series



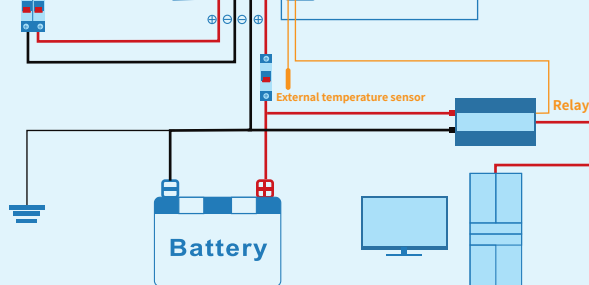
4x12v to 24v series/parallel

Example Wiring Methods

## Solar Panel



RS485



Connection diagram