Tracer Dream 200V pro series

MPPT Solar Controller

Overview

Tracer Dream 200V Series controller is based on Based on Multi phase synchronous rectification technology and advanced MPPT control algorithm, adopt co-negative design, 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.

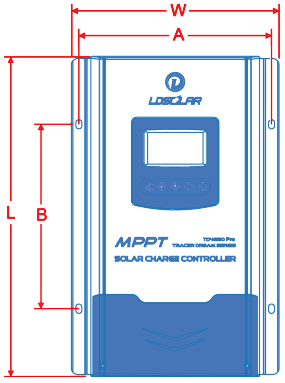
Features

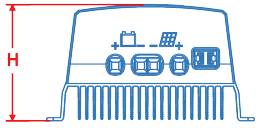
- With the advanced dual-peak or multi-peak tracking technology, when the solar panel is shadowed or part of the panel fails resulting in multiple peaks on the I-V curve, the controller is still able to accurately track the maximum power point.
- Advanced MPPT technology, with efficiency no less than 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
- Wide MPP operating voltage range
- 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 starting from solar panel
- Real-time working record function
- Load dry contact to control the external load switch
- Auto-control of utility and generator dry contact design to compose a hybrid power system easily
- Power reduction automatically over temperature range
- TVS lighting protection.
- Support parameters setting via the iConnect App

Mechanical size

Model	TD4620Pro	TD4620Pro	TD41020Pro
Charge and load current	60A	80A	100A
Size (L×W×H)mm	277×244×111mm	375×244×135.5mm	468×244×135.5mm
Mounting hole size	Φ7mm		
Weight(kg)	4.5	6.8	8.2

Please refer to the indicator diagram on the right



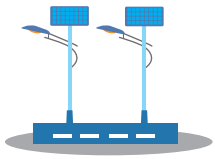


Dimension reference drawing

Application scenario

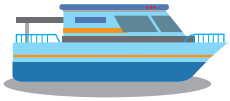
Solar RV

Household solar energy



Solar street lamp

Solar Power Generator



Solar boat

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Safety Protection

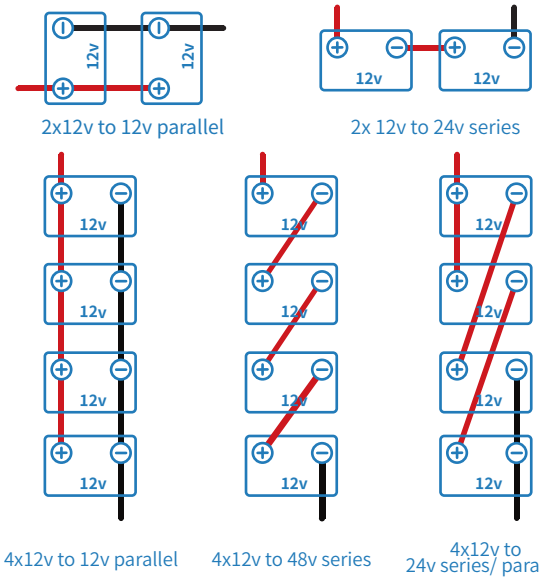
- Over Charging Protection
- Over Discharging Protection
- Overload Protection
- Short Circuit Protection
- Solar Reverse Connected Protection
- EMC Protection
- Battery Reverse Connected Protection
- Power Limited Protection
- Battery Over-Voltage Protection
- Temperature Compensation
- Over Temperature Protection
- Thunder Protection
- Reverse Flow of Current Protection
- Solar Short Circuit Protection
- Overheating Power Reduction Protection
- Solar Over-Voltage Protection

Technical specifications

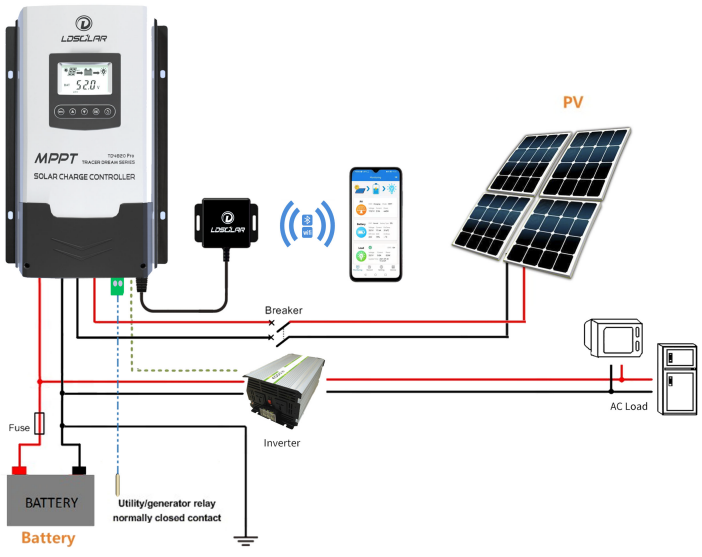
Item	TD4620Pro	TD4820Pro	TD41020Pro
System nominal voltage		12/24/48VDC Auto ①	
Rated charge current	60A	80A	100A
Battery voltage range		8～68V	
Max. PV open circuit voltage		② 180V ③ 200V	
MPP voltage range		(Battery voltage +2V)～ 144V	
Max. PV input power	800W/12V 1600W/24V 3200W/48V	1000W/12V 2100W/24V 4200W/48V	1300W/12V 2600W/24V 5200W/48V
Self-consumption		≤70mA(12V)/40mA(24V)/24mA(48V)	
LVD		11.0V ADJ 9V....12V;×2/24V;×4/48V	
LVR		12.6V ADJ 11V....13.5V;×2/24V;×4/48V	
Float voltage		13.8V ADJ 13V....15V;×2/24V;;×4/48V	
Boost voltage		14.4V ; ×2/24;×4/48V Battery Voltage less than 12.6V Start Boost changing for 2hours(Li-battery not)	
Discharge circuit voltage drop		≤0.12V	
MPPT tracking efficiency		≥99.5%	
Max. Conversion efficiency		98%	
Grounding		Common negative	
Battery Type		Sealed(Default)/Gel/Flooded/LiFePO4/ Li(NiCoMn)O2/ User	
Temperature compensate Coefficient ④		-4mv/℃/2V	
Dry contact		Rated value: 3A/30VDC; Max. value: 0.5A/60VDC	
Communication method		RS485(5VDC/200mA)	
LCD backlight time		Default: 15S	

①When a lithium battery is used, the system voltage can’ t be identified automatically. ②At minimum operating environment temperature
③At 25℃ environment temperature ④When a lithium battery is used, the temperature compensate coefficient will be 0.

Connection



◉ Example Wiring Methods



◉ Connection diagram

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