Overview

Appreciate you for choosing our MPPT solar charge controller, eTracer-BND series. Based on multiphase synchronous rectification technology (MSRT) and common positive design, with dual-core processor architecture and advanced MPPT control algorithm, the products in this series have the features of high response speed, high reliability, high industrial standards, etc.

With MPPT control algorithm, in any situation, products of this series can fast and accurately track out the best maximum power point (MPP) of PV array, in order to obtain the maximum solar energy in time, MSRT can guarantee very high conversion efficiency in any charge power, which sharply improves the energy efficiency of solar system. With Modbus communication protocol interface, it is convenient for customers to expand applications and monitor in various fields like telecommunication base station, household system, wilderness monitoring system, etc.

All-round electronic fault self-test function and enhanced electronic protection function could furthest avoid damages on system components resulting from installation errors or system failures.

Features

- Advanced Maximum Power Point Tracking (MPPT) technology, with efficiency no less than 99.5%
- High quality components, perfecting system performance, with maximum conversion efficiency of 98% and full load efficiency of 97%
- MSRT, realizing high conversion efficiency in the situation of low charge power
- Ultra-fast tracking speed and guaranteed tracking efficiency
- Accurately recognizing and tracking of multiple power points
- Reliable automatic limit function of maximum PV input power, ensuring no overload
- Wide MPP operating voltage range
- High-speed and high-powered dual-core processor architecture, improving system response speed, optimizing system performance
- Die-cast aluminum case for heat dissipating, ensuring excellent heat dissipation characteristic
- 12/24/36/48VDC automatically identifying system voltage or user-defined working voltage
- Concise human-computer interactive interface, convenient multiple combination keys, dynamically displaying system operating data and working condition
- Support 4 charging options: Sealed, Gel, Flooded and User
- Battery temperature compensation function
- Real-time energy statistics function
- With RS-485, RS-232 communication bus interface and Modbus communication protocol, it is available to meet various communication requirements in different situations
- Available for PC monitoring and external display unit connecting like MT50 and so on, realizing real-time data checking and parameters setting
- Support software upgrade

Solar Car   Solar Home   Solar Backpack   Solar Boat   Solar Street Light   Solar Power Generator
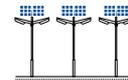
Technical specifications
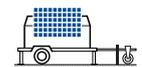
Model	ET4415BND	ET6415BND	ET6420BND
Electrical Parameters			
Nominal System Voltage	12/24/36/48VDC Auto		
Nominal Battery Current	45A	60A	
Battery Input Voltage Range	8V～68V		
Max. PV open circuit voltage	150V①/138V②		190V①/180V②
MPP Voltage Range	(VBAT④+2V)～108V③		(VBAT+2V)～144V③
Maximum Input Power	600W/12V 1200W/24V 1800W/36V 2400W/48V	800W/12V 1600W/24V 2400W/36V 3200W/48V	
Self Consumption	1.4W～2.6W		
Grounding	Common Negative		
Environmental Parameters			
LCD temperature range	-20℃～+70℃		
Ambient temperature range⑤	-25℃～+55℃		
Storage temperature range	-30℃～+85℃		
Humidity range	≤95%, N.C.		
Enclosure	IP20		
Altitude	< 5000 m (Derate to operate according to IEC60146 at a height exceeding 1000 m)		
Mechanical Parameters			
Overall dimension	398.6x208 x107mm	449.1x208x107mm	
Mounting Hole	Φ10		
Terminal	2AWG(35mm^2)		
Net Weight	4.3kg	5.5kg	5.5kg

①At minimum operating environment temperature.
②At 25℃ environment temperature.
③Max. PV open circuit voltage must never exceed 138V under 25℃ conditions.
④Battery voltage
⑤Please operate controller at permitted ambient temperature. If over permissible range, please derate capacity in service.