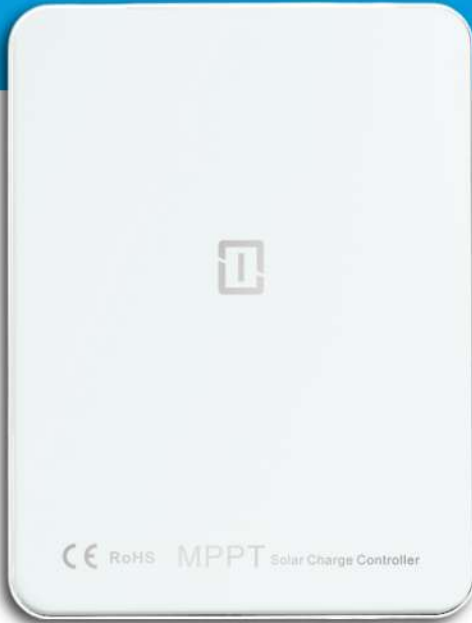


# MPPT

## SOLAR CHARGE CONTROLLER

Focus on the MPPT Solar Controller  
More Professional, More Reliable

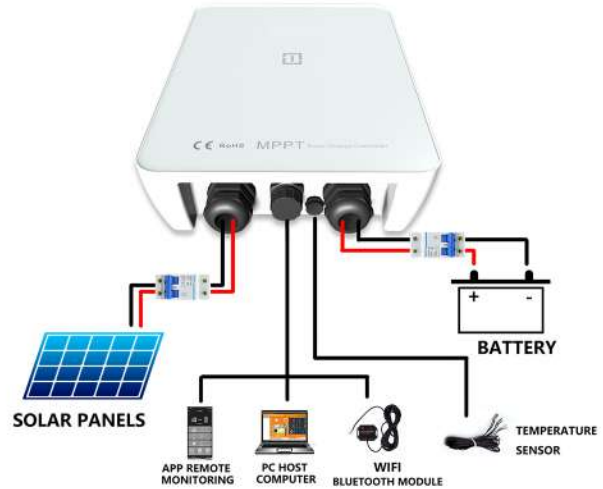
### Off-grid power generation system Preferred product



**EXPLORER SERIES** The solar charge controller incorporates new design concepts, keeps pace with technological development, and adapts to the needs of cutting-edge off-grid system applications. This series of controllers adopts the patented technology of MPPT control algorithm independently developed by our company, which can always maintain the maximum power point tracking efficiency in the high and low power sections. It has the dual functions of charging current limiting and power limiting while obtaining the energy of the solar panel, as well as the protection mechanism of automatic power reduction during high temperature charging, which fully guarantees the system stability of the product when it is connected to excess photovoltaic modules and under high temperature operating environment. In addition, the product innovation breaks through the waterproof and dustproof design, and achieves the protection level of IP65. Adapt to the different charging requirements of lead-acid batteries and lithium batteries, all systems are equipped with the activation function after lithium battery over-discharge protection as standard, fully meet the needs of various system applications of users, and have a variety of perfect protection functions, making the solar power supply system safe, Stable and long-term operation. It can be used in many fields such as RV, base station, household system and outdoor monitoring.

## EXPLORER-T

- ✓ The MPPT efficiency is  $\geq 99.5\%$ , and the conversion efficiency of the whole machine is as high as 98%.
- ✓ Built-in lithium battery activated wake-up function.
- ✓ A variety of battery (including lithium battery) charging can be customized.
- ✓ Support host computer and APP remote monitoring.
- ✓ RS485 bus, unified integrated management and secondary development.
- ✓ Self-cooling & IP65 high protection level.
- ✓ A variety of protection functions, overvoltage and overcurrent, reverse polarity protection, charging protection, etc.



## APPLICATION SCENARIOS

Off-grid power generation system



communication base station



RV power supply



Solar monitoring



# EXPLORER-T MPPT SOLAR CHARGE CONTROLLER SPECIFICATIONS

| Product Category  | ET4850  | ET4860 |       |
|---|---|--------|-------|
| Maximum Power Point Tracking Efficiency                           | ≥99.5%  |        |       |
| Standby power consumption   | 1.2W~1.8W   |        |       |
| Cooling method  | Free cooling  |        |       |
| Lead acid battery system  | 12V/24V/48V AUTO (12V: 9~15V, 24V: 18~36V, 48V: 42~60V), Can be set to 36V battery system   |        |       |
| Configurable lithium-ion battery system                           | 9VDC~60VDC  |        |       |
| Input parameters  |   |        |       |
| Maximum input voltage (Voc.Max)                                   | 150VDC  |        |       |
| start charging voltage  | real-time battery voltage + 3V  |        |       |
| Input low voltage protection voltage                              | real-time battery voltage + 2v  |        |       |
| Input overvoltage protection voltage/<br>recovery voltage         | 150VDC/145VDC   |        |       |
| rated<br>input power  | 12V lead acid battery system  | 650W   | 780W  |
|   | 24V lead acid battery system  | 1300W  | 1560W |
|   | 36V lead acid battery system  | 1950W  | 2340W |
|   | 48V lead acid battery system  | 2600W  | 3120W |
| Charging parameters   |   |        |       |
| Lithium battery activation function                               | support   |        |       |
| Battery type<br>(default setting is gel-sealed lead-acid battery) | Sealed lead-acid battery (SEL), colloidal sealed lead-acid battery (GEL), flooded battery (FLD),<br>User-defined (User-defined), Li-ion battery customization (Li-ion)    |        |       |
| Rated maximum charging current                                    | 50A   | 60A    |       |
| Temperature compensation  | -3mV/°C/2V  |        |       |
| charging method   | Lead-acid batteries: CC (Quick Charge) - CV (Constant Voltage Charge) - CF (Float Charge)<br>Li-ion battery: CC (Quick Charge) - CV (Constant Voltage Charge)             |        |       |
| Output Voltage Accuracy   | ≤±0.2V  |        |       |
| Display & Communication   |   |        |       |
| show  | Status Indicator  |        |       |
| Communication Interface   | 1-way RJ45 interface / RS485 bus communication / isolated type  |        |       |
| Electrical Interface  | 5V power supply / rated power 1W  |        |       |
| agreement type  | Standard Modbus Protocol / Proprietary Protocol   |        |       |
| Host computer or APP  | Support MpptSolarMonitor host computer monitoring (Windows system environment) /<br>Built-in Bluetooth module supports SolaMate mobile APP monitoring                     |        |       |
| Support external accessories                                      | USB serial communication cable / Cloud-Box-M2 WIFI module / MH80 remote instrument  |        |       |
| Other parameters  |   |        |       |
| Internal Electrical Characteristics                               | common negative polarity  |        |       |
| Protective function   | Input and output overvoltage protection / input and output undervoltage protection /<br>reverse polarity protection / overheat protection / battery drop protection, etc. |        |       |
| Working temperature   | -20°C~+50°C   |        |       |
| Storage temperature   | -40°C~+80°C   |        |       |
| IP protection class   | IP65  |        |       |
| elicited Power cord length  | About 400mm   |        |       |
| Installation method   | wall-mountedvertical installation   |        |       |
| Appearance feature  | Aluminum alloy integrated die-casting cooling shell / heat-resistant tempered glass panel   |        |       |
| Net weight/gross weight (kg)                                      | //  |        |       |
| Product size/packaging size (mm)                                  | 290x220x90 / 410x328x193  |        |       |

