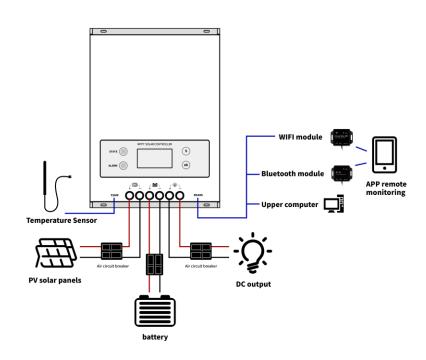


ESMART 4th Generation MPPT Solar Charge Control

EFS series solar charge controller is small and exquisite in appearance, based on MPPT controller algorithm design, can quickly track the maximum power point of photovoltaic array in any environment; support various lead-acid batteries, lithium batteries or other types of batteries, built-in various The protection function can be widely used in various fields such as RVs, communication base stations, household systems and field monitoring systems.

Features

- The MPPT efficiency is ≥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.
- Ultra-quiet air-cooled design, more stable operation.
- A variety of protection functions, small body is very useful.



Application scenarios

Household power station system



communication base station



RV power supply



Solar monitoring



ESF Series MPPT Solar Charge Controller Specifications

| | | | ESF48L50 | ESF48L60 | ESF48H50 | ESF48H60 |
|-----------------------------|--|------------|--|----------|----------|----------|
| Product Category | Controller type | | Controller with Maximum Power Point Tracking (MPPT) | | | |
| | MPPT efficiency | | ≥99.5% | | | |
| | No-load static loss | | 0.5W~1.2W | | | |
| | system voltage | | Auto | | | |
| | Cooling method | | Fan cooling | | | |
| Input characteristics | PV Maximum Open Circuit Voltage (VOC) | | 150Vdc 200Vdc | | | |
| | Start charging voltage point | | 3V higher than battery voltage | | | |
| | Input low voltage protection point | | 2V higher than the current battery voltage | | | |
| | Input overvoltage protection point | | 150Vdc 200Vdc | | | |
| | Rated input power | 12V system | 650W | 780W | 650W | 780W |
| | | 24V system | 1300W | 1560W | 1300W | 1560W |
| | | 36V system | 1950W | 2340W | 1950W | 2340W |
| | | 48V system | 2600W | 3120W | 2600W | 3120W |
| Charging characteristics | Applicable battery type | | Lead-acid battery / Li-ion battery | | | |
| | Lithium battery activation function | | Optional | | | |
| | Charge rated current | | 50A | 60A | 50A | 60A |
| | charging method | | Lead-acid battery: fast charge, equal charge, floating charge; lithium battery: fast charge, equal charge | | | |
| Load characteristics | load voltage | | same battery voltage | | | |
| | Rated load current | | 30A | | | |
| | Load control method | | Normally open and normally closed mode/dual period control mode/light control mode/light control-fixed time control mode | | | |
| Display/ Communication | Display method | | High-definition LCD segment code backlight display | | | |
| | communication method | | 8-pin RJ45 interface/RS485/support host computer monitoring/support external Bluetooth, WIFI module expansion to realize app cloud monitoring/support external monitoring header | | | |
| other properties | Protective function | | Input and output over-voltage protection, anti-reverse connection protection, battery drop protection, etc. | | | |
| | Working temperature | | -20°C~+50°C | | | |
| | Storage temperature | | -40°C~+75°C | | | |
| | IP protection class | | IP21 | | | |
| | Maximum wire size | | 20mm² | | | |
| | Net weight (kg) | | 1962.7g | | | |
| | Gross weight (kg) | | | | | |
| | Product size (mm) | | 240*166*65 | | | |
| | Packaging size (mm) | | 299*203*70 | | | |

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