

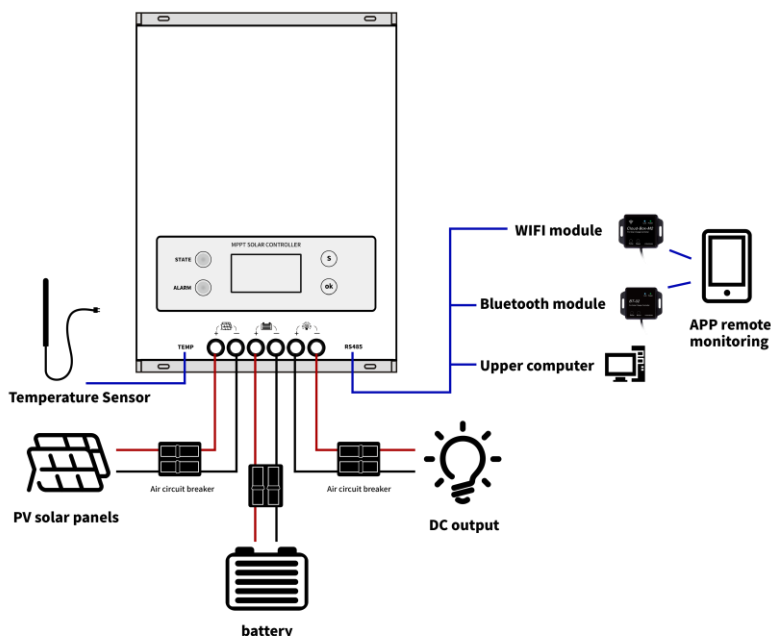


ESMART 4 Generation MPPT Solar Charge Control

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 protection functions. 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 $\geq 99.5\%$, 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.
- ✓ 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

			ESF48L40	ESF48L50	ESF48L60	ESF48H50	ESF48H60	ESF48H80	ESF48H100
Product Category	Controller type		Controller with Maximum Power Point Tracking (MPPT)						
	MPPT efficiency		≥99.5%						
	No-load static loss		1W~1.2W						
	system voltage		12V/24V/48V Auto						
	Cooling method		Fan cooling						
Input characteristics	PV Maximum Open Circuit Voltage (VOC)		150Vdc			200Vdc		250Vdc	
	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		250Vdc	
	Rated input power	12V system	520W	650W	780W	650W	780W	1040W	1300W
		24V system	1040W	1300W	1560W	1300W	1560W	2080W	2600W
		36V system	1560W	1950W	2340W	1950W	2340W	3120W	3900W
		48V system	2080W	2600W	3120W	2600W	3120W	4160W	5200W
Charging characteristics	Applicable battery type		Lead-acid battery / Li-ion battery						
	Lithium battery activation function		Optional						
	Charge rated current		40A	50A	60A	50A	60A	80A	100A
	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					50A	
	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℃~+55℃						
	Storage temperature		-40℃~+70℃						
	IP protection class		IP21						
	Maximum wire size		20mm²					25mm²	
	Net weight (kg)		1.7					3.4	
	Gross weight (kg)		2.1					4	
	Product size (mm)		240*166*65					305*200*85	
	Packaging size (mm)		315*215*108					366*240*125	

