

ESMART 4

MPPT

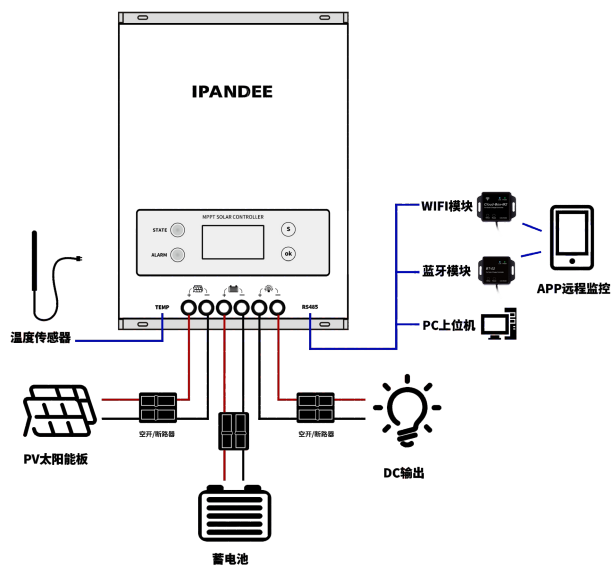
Solar charging controller

CE FC RoHS ISO



ESF 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 leadacid 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.



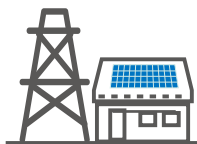
Features

- The MPPT efficiency is $\geq 99.5\%$, 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.

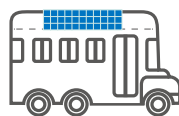
A variety of protection functions, small body is very useful.



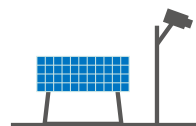
Household power station system



Communication base station



RV power supply



Solar monitoring

ESMART Series		ESF48L40	ESF48L50	ESF48L60	ESF48H50	ESF48H60	ESF48H80	ESF48H100
Controller type		Controller with Maximum Power Point Tracking (MPPT)						
MPPT efficiency		≥99.5%						
No-load static loss		1W~1.5W						
system voltage		12V/24V/36V/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℃~+50℃						
Storage temperature		-40℃~+70℃						
IP protection class		IP21						
Maximum wire size		20mm ²					25mm ²	
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)		292*204*67					382x245x129	