

## New Off grid 50A mppt controller 12V 24V 36V 48V auto work with APP monitoring



eSmart3 series is the third generation of eSmart mppt controller, based on eSmart1, eSmart2 series mppt controller, we update the display with back-light LCD display, load control way, connect way, internal structure, reduce the static standby self-consumption, energy saving and more simply for small system.etc. It features an efficient MPPT control algorithm to track the maximum power point of the PV array. Greatly improve the utilization of solar panel. Its intelligent LCD and upper PC display, mostly convenient for customers to check, records and parameter setting. It widely used in off-grid solar system, communication base station solar system, household solar systems, street light solar systems, field monitoring and other fields etc.

Choose eSmart3, more intelligent in life!





## Features:

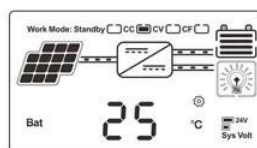
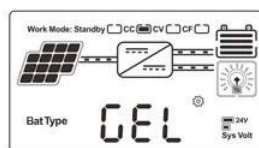
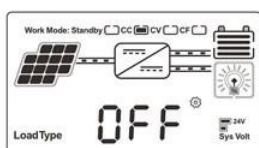
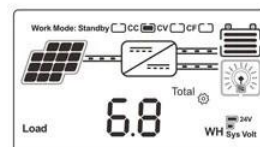
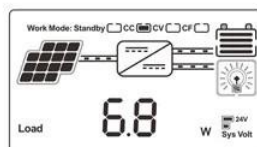
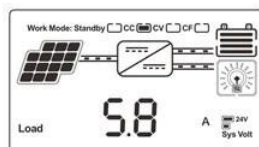
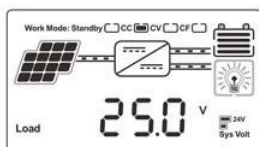
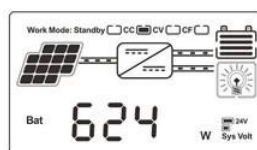
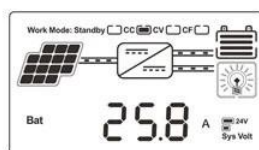
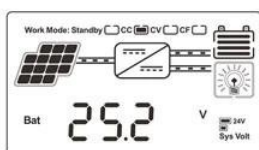
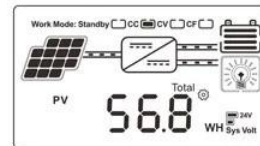
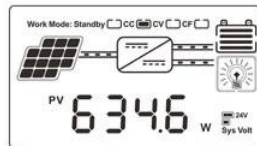
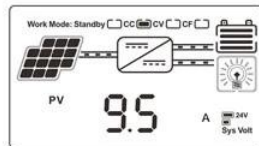
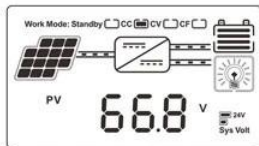
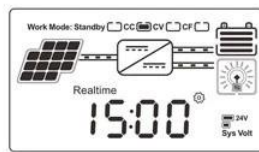
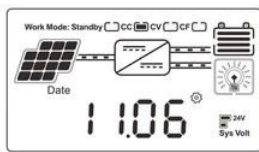
- 1.It has an efficient MPPT algorithm, MPPT efficiency  $\geq 99.5\%$  and converter efficiency up to 98%.
- 2.Charge mode: three stages (constant current, constant voltage, floating charge), it prolongs service life of the batteries.
- 3.Four types of load mode selection: ON/OFF, PV voltage control, Dual Time control, PV+Time control .
- 4.Battery system voltage automatic recognition.
- 5.Three kinds of commonly used lead-acid battery (Seal\Gel\Flooded) parameter settings fcan be selected by the user, and the user can also customize the parameters for other battery charging.
- 6.It has a current limiting charging function. When the power of PV is too large, the controller automatically keeps the charging power, and the charging current will not exceed the rated value.
- 7.High definition LCD display function to check the device running data and working status, also can support modify the controller display parameter.
- 8.RS485 communication, we can offer communication protocol to convenient user's integrated management and secondary development.
- 9.Support PC software monitoring and WiFi module to realize APP cloud monitoring.
- 10.CE, RoHS, FCC certifications approved, we can assist clients to pass various certifications.
- 11.2 years warranty, and 2~10 years extended warranty service also can be provided.

## MPPT Controller connection diagram

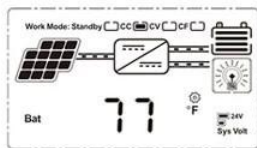
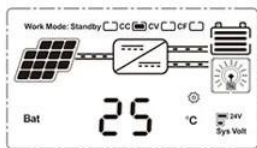
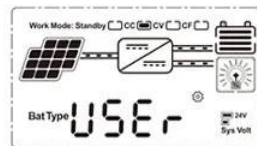
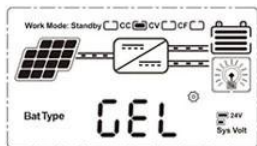
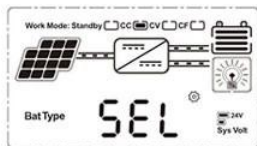
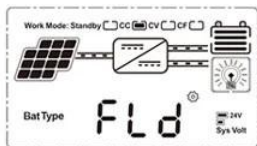
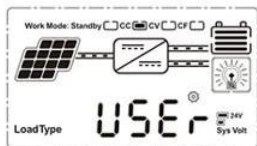
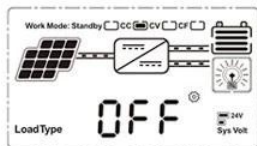
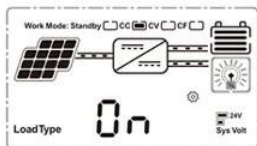
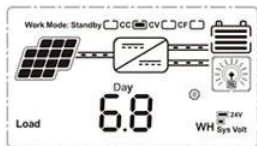
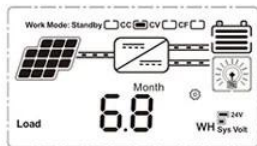
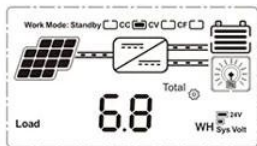
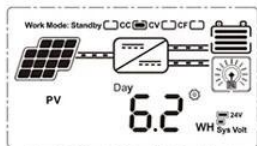
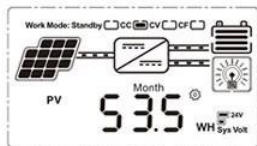
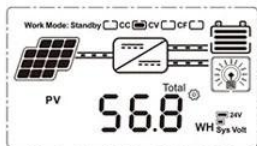
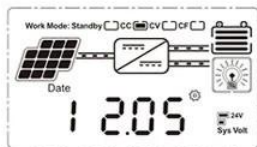
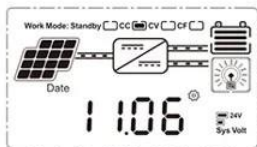
# Off Grid Solar System CPU



## Parameters Display & Setting information



LCD display information

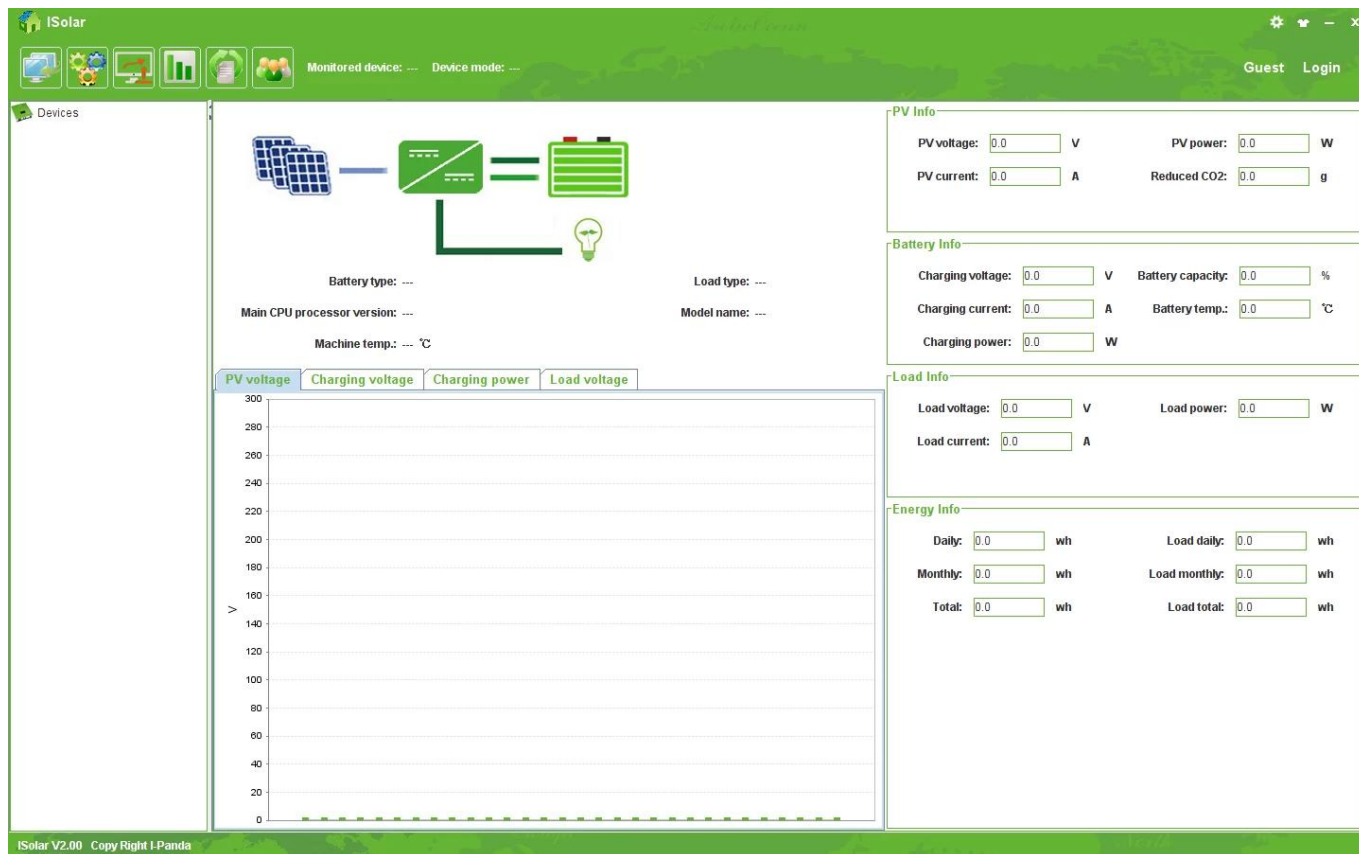


0n	Mean "ON"	FLD	Mean "FLD"
OFF	Mean "OFF"	GEL	Mean "GEL"
USER	Mean "USER"	SEL	Mean "SEL"

Set the battery type and LOAD control mode

## Set the battery type and LOAD control mode





PC software\_SolarEagle

Visual display of charge and discharge status, PV voltage, charge voltage, charge current, and can set the battery type, LOAD output control;

## Parameter

eSmart3 series			50A	
Product category	Controller Properties		MPPT (maximum power point tracking)	
	MPPT efficiency		≥99.5%	
	Standby power		0.5W~1.2W	
	System voltage		Automatic recognition	
	Heat-dissipating method		Intelligent fan cooling	
Input Characteristics	Max.PV input voltage(VOC)		DC150V	
	Low input voltage protection point		Battery voltage + 2V	
	Over voltage protection point		DC150V	
	Rated PV power	12V system	650W	
		24V system	1300W	
		36V system	1950W	
		48V system	2600W	
Charge characteristics	Selectable Battery Types		Sealed lead acid, Gel battery, Flooded	
	(Default Gel battery, Other types of the batteries also can be defined)			
	Charge rate		50A	
	charging method		3-Stage: constant current(fast charging)-constant voltage-floating charge	
LOAD Characteristics	Load voltage		The same as the battery voltage	
	Load rated current		60A	
	Load control mode		On/Off mode, PV voltage control mode, Dual-time control mode, PV + Time control mode	
Display & Communication	Display mode		High-definition LCD segment code backlight display	
	Communication mode		8-pin RJ45 port/RS485/support PC software monitoring/support WiFi module to realize APP cloud monitoring	
Other Parameters	Protect function		Input-output over \ under voltage protection, Prevention of connection reverse protection,battery shedding protection etc.	
	Operation Temperature		-20℃~+50℃	
	Storage Temperature		-40℃~+75℃	
	IP(Ingress protection)		IP21	
	Max. connection size		30mm2	
	Net Weight (kg)		2.6	
	Gross Weight (kg)		3.5	
	Product Size(mm)		270*180*85	
	Packing Size(mm)		324*223*135	

Remark:

1. Above is company's standard parameters; any modify please check our official website;
2. We can customize 72V / 96V and other unconventional MPPT controller to special customers, provide OEM and ODM services.