

eSmart3 series is the third generation of eSmart mppt controller, based on eSmart1, eSmart2 series mppt controller.



MPPT Solar Controller  
12V24V36V48 50A-60A





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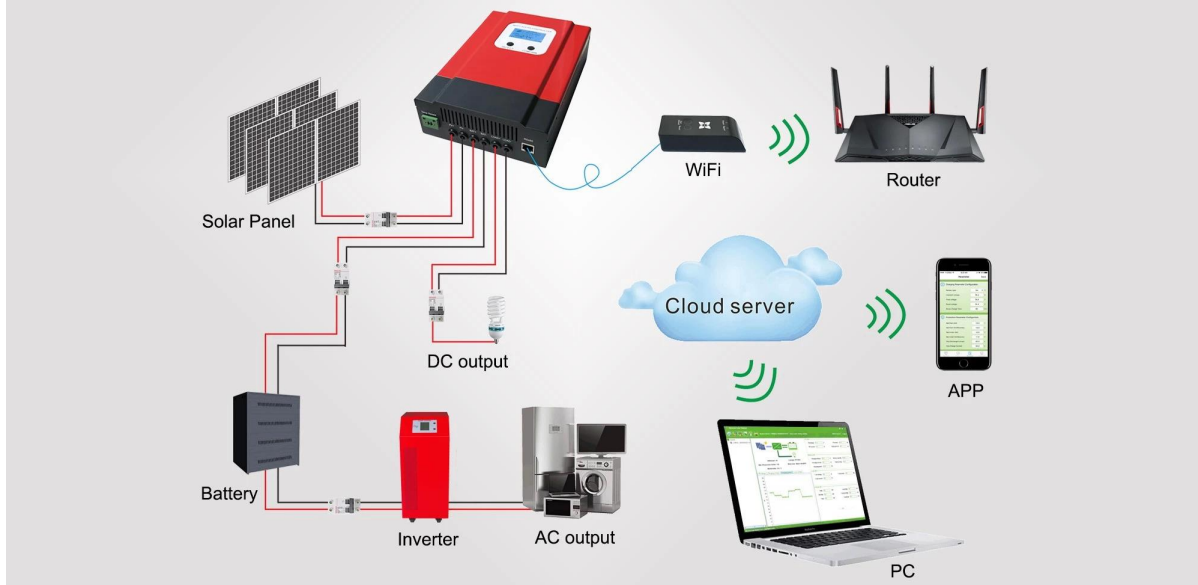


## Features

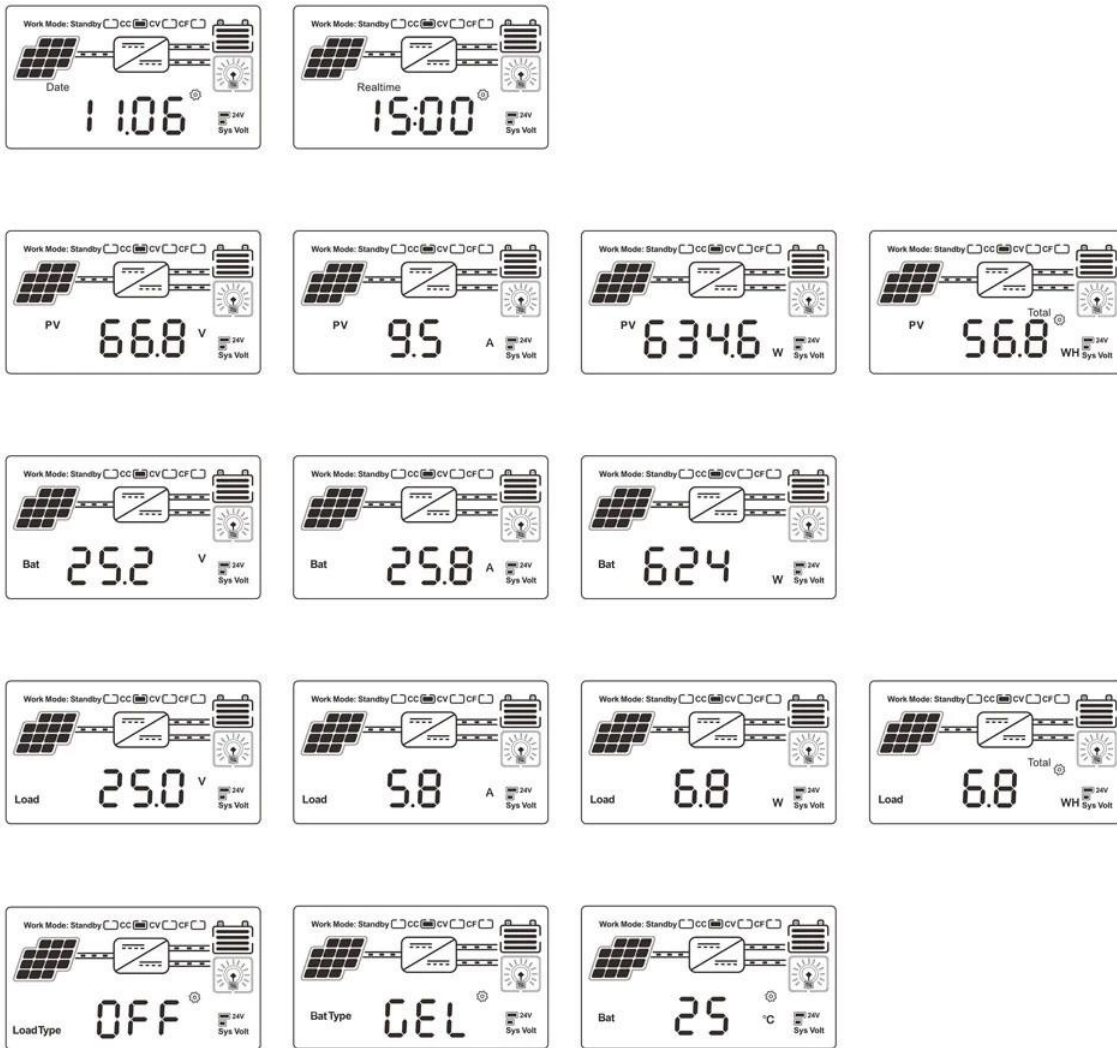
- 1.It has an efficient MPPT algorithm, MPPT efficiency  $\geq 99.5\%$  and converter efficiency up to 98%.
- 2.Charge mode: three stages (constant current, constant voltage, floating charge), it prolongs service life of the batteries.
- 3.Four types of load mode selection: ON/OFF, PV voltage control, Dual Time control, PV+Time control .
- 4.Battery system voltage automatic recognition.
- 5.Three kinds of commonly lead-acid battery (Seal\Gel\Flooded)types,parameter settings can be selected by the user,and the user can also self-defined some parameters for other battery type.
- 6.It has a current limiting charging function. When the power of PV is too large, the controller automatically keeps its Mat rated 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.Two years warranty, and 2~10 years extended warranty service also can be provided.

## MPPT Controller connection diagram

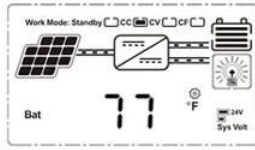
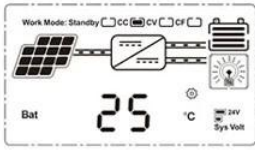
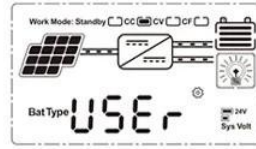
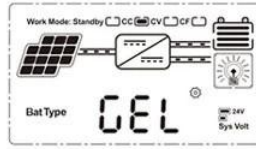
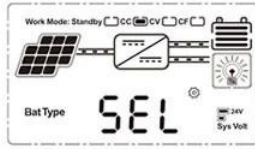
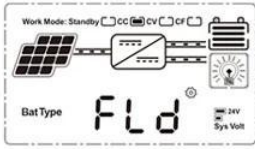
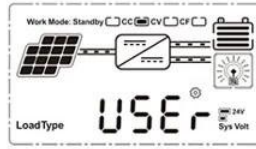
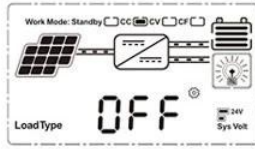
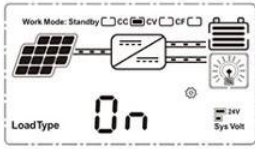
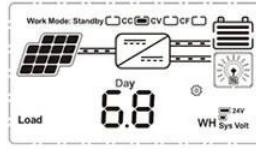
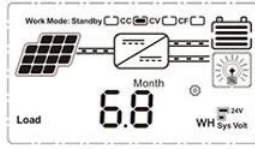
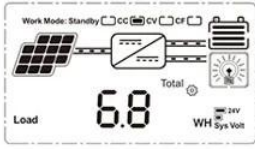
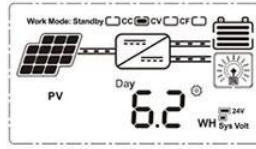
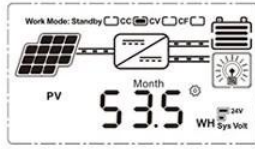
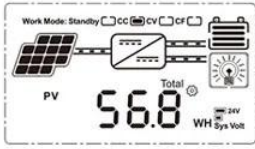
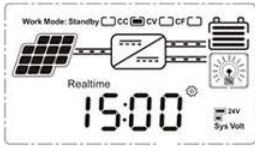
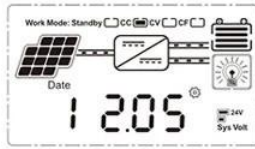
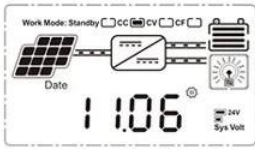
# Off Grid Solar System CPU



## Parameters Display & Setting information



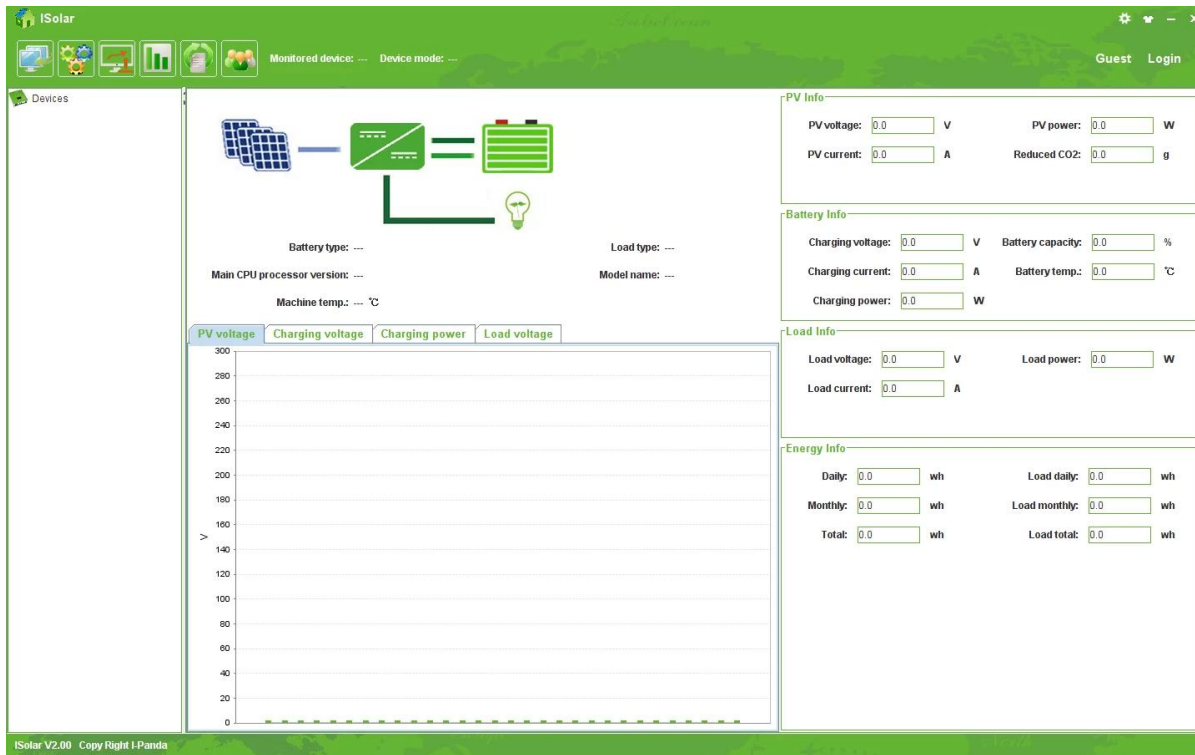
LCD display information



On	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		20A	30A	40A	50A	60A
Product category	Controller Properties	MPPT (maximum power point tracking)				
	MPPT efficiency	≥99.5%				
	Standby power	0.5W~1.2W				
	System voltage	Automatic recognition				
	Heat dissipation method	Intelligent fan cooling				
	Max.PV input voltage(VOC)	DC150V				
	Start the charge voltage point	Battery voltage + 3V				
Input	Low input voltage protection point	Battery voltage + 2V				
	Over voltage protection point	DC150V				
	Rated PV power	12V system 24V system 36V system 48V system	260W 520W 780W 1040W	390W 780W 1170W 1560W	520W 1040W 1560W 2080W	650W 1300W 1950W 2600W
Charge Characteristics	Selectable Battery Types (Default Gel battery)	Sealed lead acid, Gel battery, Flooded (Other types of the batteries also can be defined)				
	Charge rated current	20A	30A	40A	50A	60A
LOAD Characteristics	charging method	3-Stage: constant current(fast charging)-constant voltage-floating charge				
	Load voltage	The same as the battery voltage				
Display & Communication	Load rated current	40A				60A
	Load control mode	On/Off mode, PV voltage control mode, Dual-time control mode, PV + Time control mode				
Other Parameters	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°C~+50°C				
	Storage Temperature	-40°C~+75°C				
	IP(Ingress protection)	IP21				