MPPT Solar Charge Controller

eSmart3 series(12V\24V\36V\48V Auto 20A\30A\40A\50A\60A）

Product color and some functions can be customized(OEM/ODM)

Features

◆ It has an efficient MPPT algorithm, MPPT efficiency ≥99.5%，and converter efficiency up to 98%.

◆ Charge mode: three stages (constant current, constant voltage, floating charge), it prolongs service life of the batteries.

◆ Four types of load mode selection: ON/OFF, PV voltage control, Dual Time control, PV+Time control .

◆ Battery system voltage automatic recognition.

◆ 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.

◆ 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.

◆ High definition LCD display function to check the device running data and working status, also can support modify the controller display parameter.

◆ RS485 communication, we can offer communication protocol to convenient user's integrated management and secondary development.

◆ Support PC software monitoring and WiFi module to realize APP cloud monitoring.

◆ CE, RoHS, FCC certifications approved, we can assist clients to pass various certifications.

◆ 3 years warranty, and 3~10 years extended warranty service also can be provided.

Parameter

eSmart3 series		eSmart3-20A	eSmart3-30A	eSmart3-40A	eSmart3-50A	eSmart3-60A
Product category	Controller Properties	MPPT (maximum power point tracking)				
	MPPT efficiency	≥99.5%				
	Standby power	0.5W~1.2W				
	System voltage	Automatic recognition				
	Heat-dissipating method	Intelligent fan cooling				
Input Characteristics	Max.PV input voltage(VOC)	DC150V				
	Start the charge voltage point	Battery voltage + 3V				
	Low input voltage protection point	Battery voltage + 2V				
	Over voltage protection point	DC150V				
	Rated PV power — 12V system	260W	390W	520W	650W	780W
	24V system	520W	780W	1040W	1300W	1560W
	36V system	780W	1170W	1560W	1950W	2340W
	48V system	1040W	1560W	2080W	2600W	3120W
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
	Charge Method	3-Stage: constant current(fast charging)-constant voltage-floating charge				
LOAD Characteristics	Load voltage	The same as the battery voltage				
	Load rated current	40A			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	$20mm^2$			$30mm^2$	
	Net Weight (kg)	2.3			2.6	
	Gross Weight (kg)	3			3.5	
	Product Size (mm)	240*168*66			270*180*85	
	Packing Size(mm)	289*204*101			324*223*135	