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EASTMAN WORLD

Eastman has a strong global presence and has tailored its products to meet the needs of the export market, providing high-quality energy storage and solar solutions.



SOLAR CHARGE CONTROLLER

MPPT SCC | PWM SCC

Eastman Introduction

Founded in 2006

Established in 2006, Eastman Auto & Power Limited is a well-known name in the field of solar energy, energy storage, and power electronics, boasting a USD 300 million revenue and a dedicated workforce of over 3,000 professionals. Building on the group's decades-long success and maintaining the trust of our partners, Mr. Jagdish Rai Singal ventured into the future of energy with Eastman Auto & Power Limited. Today, the business spans over 25 countries across Asia, Africa, Middle East, and Europe and provides the world with cutting-edge products that have set new benchmarks in their respective segments. Driven by innovation, we continually set industry standards, ensuring uninterrupted power supply for residential, commercial, and industrial applications.

Our global solar distribution business provides reliable and high-quality solar solutions, including solar inverters, solar panels, solar batteries (carbon, gel, lithium, and tubular), solar pump inverters, solar charge controllers, and more. Our products offer a range of solutions to help you make the switch to clean energy. With us as your unwavering partners, we forge a sustainable future, amplifying global excellence through transformative products and services.



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MPPT SCC

15A 75V, 20A 75V, 30A 75V, 40A 75V

Product Features

- Advanced MPPT technology, fast and stable track the Maximum Power Point, tracking accuracy 99.5%.
- Adopt Synchronous Rectifier Technology, significantly improve the transfer efficiency of circuit, maximum 98.5%.
- 12/24VDC system voltage automatic recognition.
- Humanized LCD displaying, dynamic display operation data and working state.
- Temperature Compensation Function.



Humanized LCD displaying



Advance MPPT Technology



Accumulation function of charging and discharging



Wide MPPT Operating Voltage Range

Application Scenarios



Solar RV



Household Solar Energy



Solar Street Lamp



Solar Power Generator

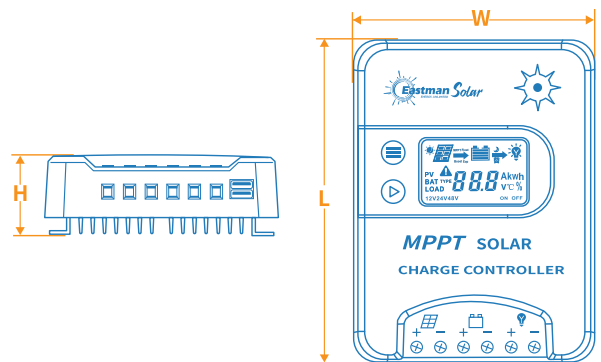


Solar Boat

Mechanical Size

15A, 20A, 30A, 40A

Charge and load current	15A	20A	30A	40A
Size (L×W×H)mm	165*123*46	195*123*46	205*157*53	256*157*53
Mounting hole size	φ5mm			
Weight(g)	0.63Kg	0.82Kg	1.2Kg	1.5Kg
Terminal scale	10mm ² /8AWG		16mm ² /6AWG	



● Please refer to the indicator diagram on the right

● Dimension reference drawing

MPPT SCC

15A 75V, 20A 75V, 30A 75V, 40A 75V



Product Specifications

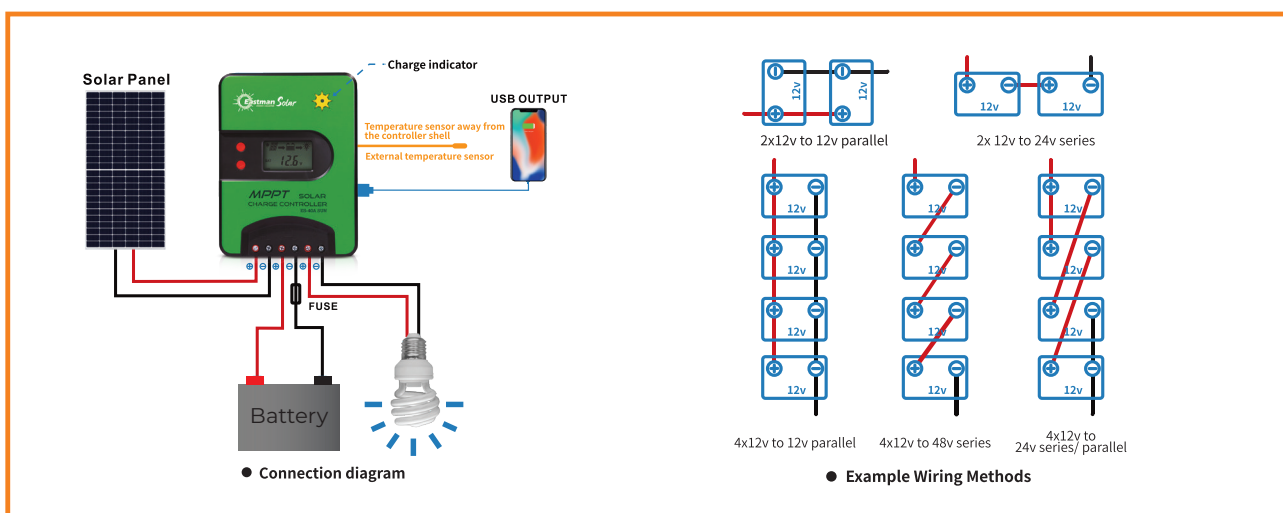
MODELS	ES-15A SUN 75V	ES-20A SUN 75V	ES-30A SUN 75V	ES-40A SUN 75V
System Voltage	12V/24V DC auto			
Working voltage range	8~32V			
Max.PV open circuit voltage	75V (Min.working temp) 70V (25°C)			
MPPT voltage range	(Battery voltage+2V) ~65V			
Discharge circuit voltage drop	≤0.25V			
Self-consumption	<23mA			
Rated charge current	15A	20A	30A	40A
Rated discharge current	15A	20A	30A	40A
Max.PV input power	200W/12A 400W/24V	260W/12A 520W/24V	390W/12A 780W/24V	520W/12A 1040W/24V
Grounding	/			
Battery type	Sealed (Default)/Gel/Flood/Lithium			
LVD ※*	11.0V ADJ 9V...12V ; ×2/24V ; ×4/48V			
LVR ※*	12.6V ADJ 11V...13.5V ; ×2/24V ; ×4/48V			
Float Voltage ※*	13.8V ADJ 13V... 15V ; ×2/24V ; M/48V			
Boost Voltage ※*	14.4V ADJ 13V...17V ; ×2/24 ; ×4/48V battery voltage less than 12.6v auto boost 2hours			
Battery Over Voltage Protection	16.5V ; ×2/24V ; ×4/48V			
USB Output	5VDC/2A 2PCS			
Temperature Consumption#	For 12Vsystem:-24mV/°C ; ×2/24V ; ×4/48V			
Relative Humidity	≤95%, N.C.			
Working Temperature	-20°C~+50°C(Product can work continuously at full load)			
LCD temperature range	-20°C~+70°C			
Waterproof grade	IP32			
Mounting hole size	φ5mm			
Terminals	10mm ² /8AWG		16mm ² /6AWG	
Weight	0.63Kg	0.82Kg	1.2Kg	1.5Kg
Overall dimension (mm)	165*123*46mm	195*123*46mm	205*157*53mm	256*157*53mm

#when battery type is set to Lithium battery, Temperature consumption is 0,unchangeable.

※ Above the parameters are in 12V system at 25°C, twice in 24V system and quadruple in 48V system.

*The default value is set based on the lead-acid battery. For other battery type please refer to the manual.

Connection Diagram



MPPT SCC

30A 100V, 40A 100V
50A 150V, 60A 150V

45A 120V, 60A 120V
30A 150V, 40A 150V

Product Features

- Advanced MPPT technology, fast and stable track the Maximum Power Point, tracking accuracy 99.5%.
- Adopt Synchronous Rectifier Technology, significantly improve the transfer efficiency of circuit, maximum 98.5%.
- 12/24VDC or 12V/ 24V/ 48V system voltage automatic recognition.
- Humanized LCD displaying, dynamic display operation data and working state.
- Temperature Compensation Function.



Humanized LCD displaying



Advance MPPT Technology



Accumulation function of charging and discharging



Wide MPPT Operating Voltage Range

Application Scenarios



Solar RV



Household Solar Energy



Solar Street Lamp



Solar Power Generator



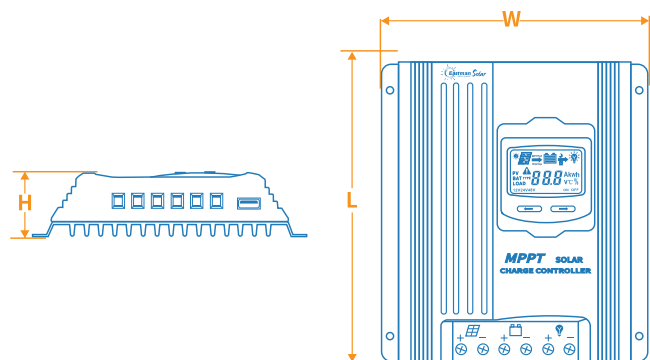
Solar Boat

Mechanical Size

30A 100V, 40A 100V

Charge and load current	30A	40A
Size (L×W×H)mm	195*183*54	232.5*200.1*54
Mounting hole size	φ5mm	
Weight(g)	1.2Kgs	1.7Kgs
Terminal scale	16mm ² /6AWG	25mm ² /4AWG

- Please refer to the indicator diagram on the right



- Dimension reference drawing

MPPT SCC

30A 100V, 40A 100V
50A 150V, 60A 150V

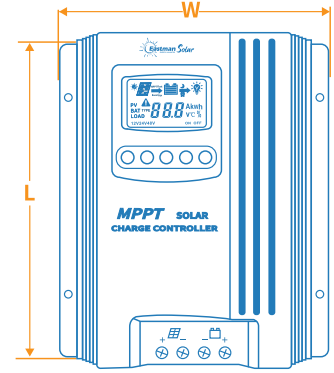
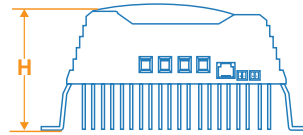
45A 120V, 60A 120V
30A 150V, 40A 150V



Mechanical Size

50A 150V, 60A 150V

Charge and load current	50A	60A
Size (L*W*H)mm	277*243*103mm	
Mounting hole size	φ5mm	
Weight(g)	3.9Kgs	4.5Kgs
Terminal scale	25mm ² /4AWG	25mm ² /4AWG

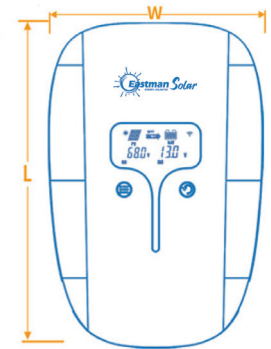
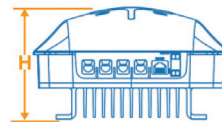


● Please refer to the indicator diagram on the right

● Dimension reference drawing

45A 120V, 60A 120V, 30A 150V, 40A 150V

Charge & Load Current	45A	30A	60A	40A
Dimension(L*W*H)	258*180*88mm		288*190*108mm	
Mounting Dimension(A*B)	130x135mm		138x140mm	
Mounting hole size	φ5mm		φ6mm	
Weight	1.8Kgs	1.7Kgs	2.4Kgs	2.2Kgs



● Please refer to the indicator diagram on the right

● Dimension reference drawing

MPPT SCC

30A 100V, 40A 100V
50A 150V, 60A 150V

45A 120V, 60A 120V
30A 150V, 40A 150V



Product Specifications

MODELS	ES-30A SCC 100V	ES-40A SCC 100V	ES-50A SCC 150V	ES-60A SCC 150V
System Voltage	12V/24V DC auto		12V/24V/48V DC auto	
Working voltage range	8~32V		8~68V	
Max.PV open circuit voltage	100V (Min.working temp) 95V (25°C)		150V (Min.working temp) 140V (25°C)	
MPPT voltage range	(Battery voltage+2V) ~75V		(Battery voltage+2V) ~125V	
Discharge circuit voltage drop	≤0.25V		-	
Self-consumption	<23mA		<2W	
Rated charge current	30A	40A	50A	60A
Rated discharge current	30A	40A	/	/
Max.PV input power	390W/12V 780W/24V	520W/12V 1040W/24V	650W/12V 1300W/24V 2600W/48V	800W/12V 1600W/24V 3200W/48V
Grounding	Common negative			
Battery type	Sealed (Default)/Gel/Flood/Lithium			
LVD※*	11.0V ADJ 9V...12V ; *2/24V ; *4/48V			
LVR※*	12.6V ADJ 11V...13.5V ; *2/24V ; *4/48V			
Float Voltage※*	13.8V ADJ 13V... 15V ; *2/24V ; M/48V			
Boost Voltage※*	14.4V ADJ 13V...17V ; *2/24 ; *4/48V battery voltage less than 12.6v auto boost 2hours			
Battery Over Voltage Protection	16.5V ; *2/24V ; *4/48V			
USB Output	5VDC/1A 1PCS			
Temperature Consumption#	For 12Vsystem:-24mV/°C ; *2/24V ; *4/48V			
RS485 interface	Optional		Yes	
Relative humidity	≤95%, N.C.			
Working Temperature	-20°C~+50°C(Product can work continuously at full load)			
LCD temperature range	-20°C~+70°C			
Waterproof Grade	IP32			
Mounting hole size	φ5mm			
Terminals	16mm ² /6AWG	25mm ² /4AWG	25mm ² /4AWG	
Weight	1.2Kgs	1.7Kgs	3.9Kgs	4.5Kgs
Overall Dimension (mm)	195*183*54mm	232.5*200.1*54mm	277*243*103mm	

#when battery type is set to Lithium battery, Temperature consumption is 0,unchangeable.

※ Above the parameters are in 12V system at 25°C, twice in 24V system and quadruple in 48V system.

*The default value is set based on the lead-acid battery. For other battery type please refer to the manual.

MODELS	ES-45A SCC-120V	ES-60A SCC-120V	ES-30A SCC-150V	ES-40A SCC-150V
System Voltage	12/24VDC Auto ◎		12/24/48VDC Auto ◎	
Rated charge current	45A	60A	30A	40A
Battery voltage range	8~32V		8~68V	
Max.PV open circuit voltage	◎ 110V	◎ 120V	◎ 138V	◎ 150V
MPPT voltage range	(Battery voltage +2V)~85V		(Battery voltage +2V)~108V	
Rated charge power	580W/12V 1170W/24V	800W/12V 1600W/24V	390W/12V 780W/24V 1560W/48V	520W/12V 1040W/24V 2080W/48V
Self-consumption	≤70mA(12V)40mA(24V)24mA(48V)			
LVD	11.0V ADJ 9V...12V ; *2/24V ; *4/48V			
LVR	12.6V ADJ 11V...13.5V ; *2/24V ; *4/48V			
Float Voltage	13.8V ADJ 13V... 15V ; *2/24V ; 4/48V			
Boost Voltage	14.4V ; *2/24 ; *4/48V battery voltage less than Boost Restart Voltage Start Boost charging for 2 hours			
MPPT tracking efficiency	≥99.5%			
Max. Conversion efficiency	98%			
Grounding	Common negative			
Battery Type	Sealed(Default)/Gel/Flooded/LiFePO4/ Li(NiCoMn)O2/User			
Temperature compensate ◎	-4mv/°C/2V			
Communication method	RS485(5VDC/200mA)			

◎ When a lithium battery is used, the system voltage can't be identified automatically. ◎ At minimum operating environment temperature.

◎ At 25°C environment temperature. ◎ When a lithium battery is used,the temperature compensate coefficient will be 0.

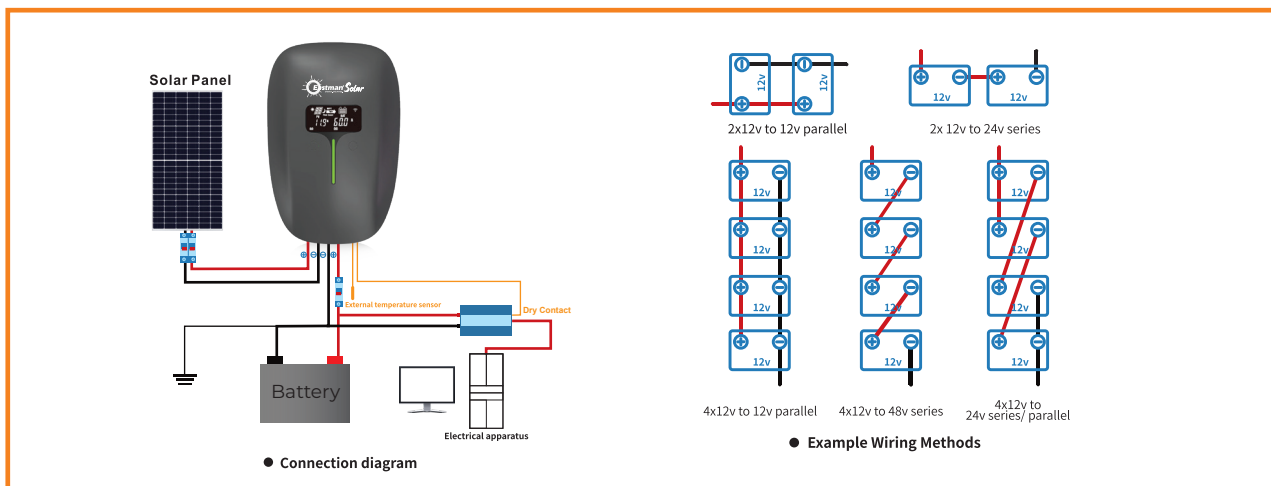
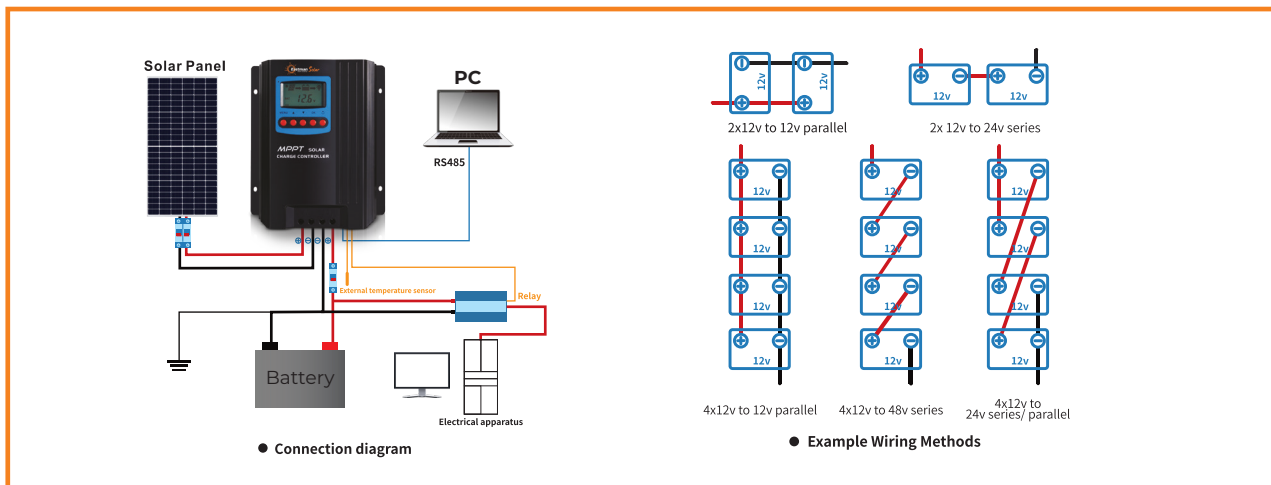
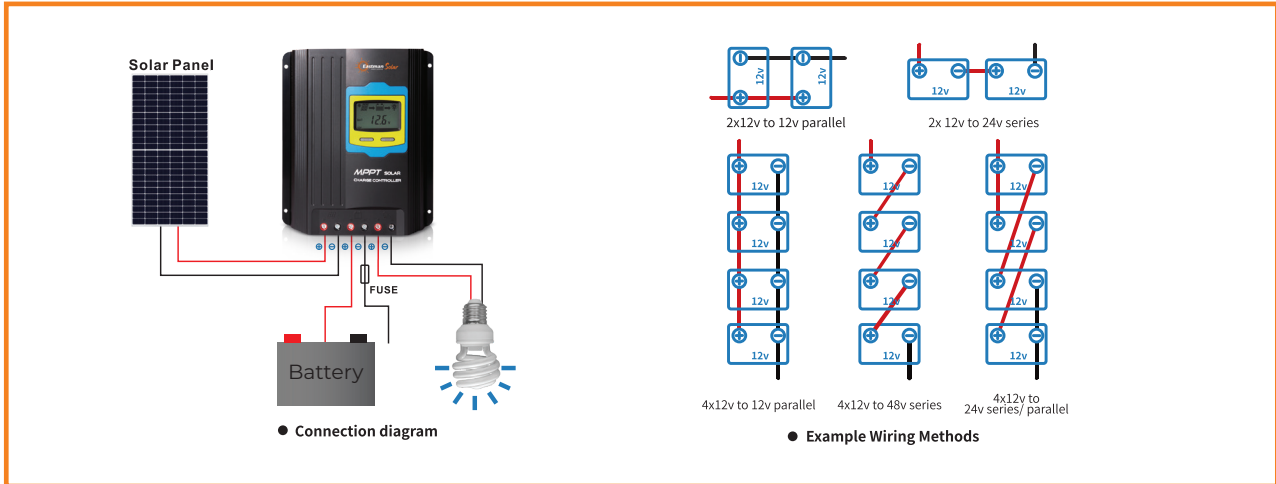
MPPT SCC

30A 100V, 40A 100V
50A 150V, 60A 150V

45A 120V, 60A 120V
30A 150V, 40A 150V



Connection Diagram



MPPT SCC

80A 200V, 100A 200V

Product Features

- Advanced MPPT technology, fast and stable track the Maximum Power Point, tracking accuracy 99.5%.
- Auto-control of utility and generator dry contact design to compose a hybrid power system easily.
- Real-time working record function.
- 12/24V/48VDC System voltage automatic recognition.
- Load dry contact to control the external load switch.
- Power reduction automatically over temperature range.
- TVS lighting protection.



Humanized LCD displaying



Advance MPPT Technology



Accumulation function of charging and discharging



Wide MPPT Operating Voltage Range

Application Scenarios



Solar RV



Household Solar Energy



Solar Street Lamp



Solar Power Generator



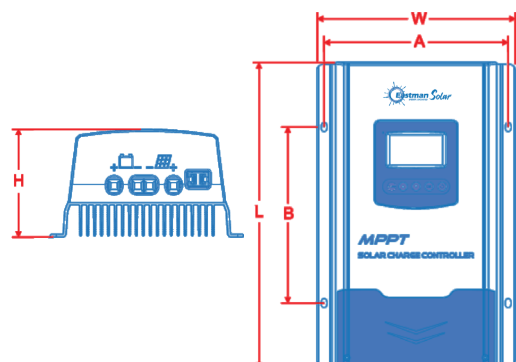
Solar Boat

Mechanical Size

80A 200V, 100A 200V

Charge and load current	80A	100A
Size (L×W×H)mm	375*244*135.5	
Mounting hole size	φ7mm	
Weight	6.8Kgs	8.2Kgs

- Please refer to the indicator diagram on the right



- Dimension reference drawing

MPPT SCC

80A 200V, 100A 200V

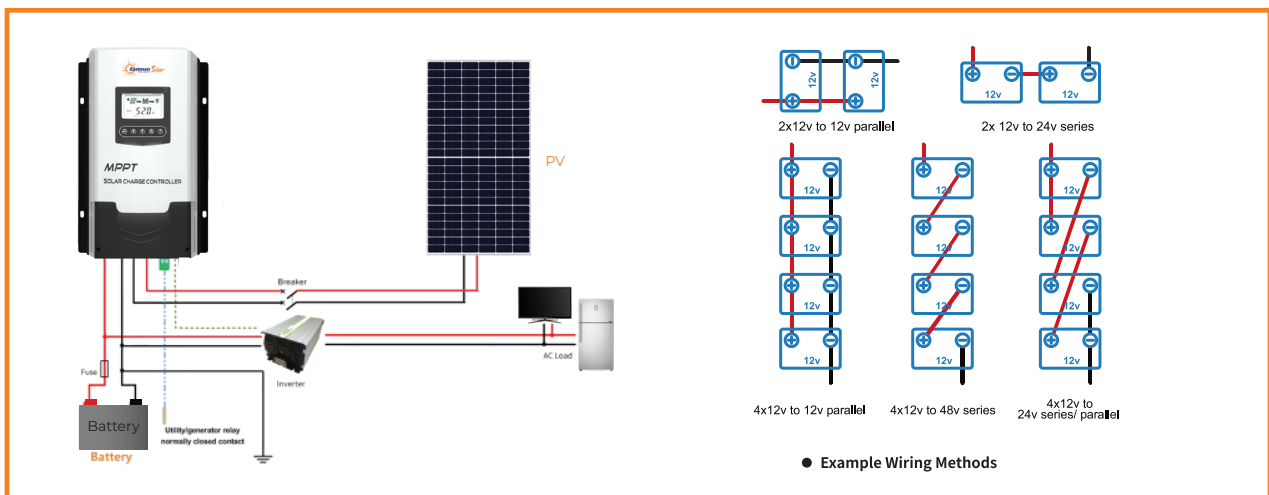


Product Specifications

MODELS	ES-80A SCC 200V			ES-100A SCC 200V		
System nominal voltage	12/24/48VDC Auto ①					
Rated charge current	80A			100A		
Battery voltage range	8~68V					
Max. PV open circuit voltage	②180V ③200V					
MPPT voltage range	(Battery voltage +2V)~144V					
Max. PV input power	1000W/12V	2100W/24V	4200W/48V	1300W/12V	2600W/24V	5200W/48V
Self-consumption	≤70mA(12V)/40mA(24V)/24mA(48V)					
LVD	11.0V ADJ 9V...12V; *2/24V; *4/48V					
LVR	12.6V ADJ 11V...13.5V; *2/24V; *4/48V					
Float voltage	13.8V ADJ 13V...15V; *2/24V;;*4/48V					
Boost voltage	14.4V ; *2/24; *4/48V Battery Voltage less than 12.6V Start Boost changing for 2hours(Li-battery not)					
MPPT tracking efficiency	≥99.5%					
Max. Conversion efficiency	98%					
Grounding	Common negative					
Battery Type	Sealed(Default)/Gel/Flooded/LiFePO4/ Li(NiCoMn)02/ User					
Temperature compensate Coefficient④	-4mv/°C/2V					
Dry contact	Rated value: 3A/30VDC; Max. value: 0.5A/60VDC					
Communication method	RS485					
LCD backlight time	Default: 15S					
Protection Level	IP32					

①When a lithium battery is used, the system voltage can't be identified automatically. ②At minimum operating environment temperature
 ③At 25 C environment temperature ④When a lithium battery is used, the temperature compensate coefficient will be 0.

Connection Diagram



PWM SCC

20A, 30A, 50A, 60A SCC-PWM

Product Features

- 12V/24VDC or 12V/24V/48VDC Automatic Identification System Voltage.
- Humanized LCD displaying, dynamic display operation data and working state.
- Temperature Compensation Function and Controller Over Temperature Protection Function.
- Colorful connector distinguish plus and minus poles.
- 5V-1.5A/5V-2.4A USB output.



Humanized LCD displaying



3 stages PWM Charging



USB Port



Wide Operating Voltage Range

Application Scenarios



Solar RV



Household Solar Energy



Solar Street Lamp

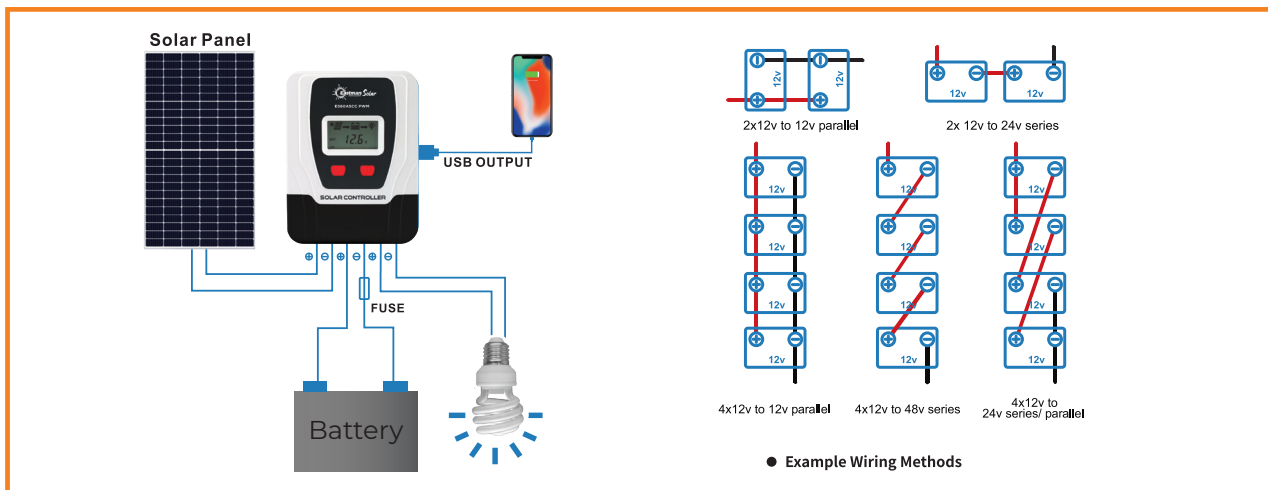


Solar Power Generator



Solar Boat

Connection Diagram



PWM SCC

20A, 30A, 50A, 60A SCC-PWM



Product Specifications

MODELS	ES20A SCC-PWM	ES30A SCC-PWM	ES50A SCC-PWM	ES60A SCC-PWM
System Voltage	12/24D DC Auto or 12/24/48VDC Auto			
PV Max Input Voltage	55V			
Max Charge Current	<10mA			
Max Discharging currentt	20A	30A	50A	60A
Battery Type	Sealed(Default)/Gel/Flood/Lithium			
LVD✘*	11.0V ADJ 9V... 12V ; ×2/24V			
LVR✘*	12.6V ADJ 11V...13.5V ×2/24V			
Float Voltage ✘*	13.8V ADJ 13V... 15V ; ×2/24V ; M/48V			
Boost Voltage ✘*	13.8V ADJ 13V... 15V ; ×2/24V battery voltage less than 12.6v auto boost 2hours			
Battery Over Voltage	16.5V ; ×2/24V			
Reverse Connection Protection	yes			
Load Over Current Protection	Yes, each 30s auto restart again			
Controller Over Temperature	yes			
USB Output	5VDC/1.5A 2PCS		5VDC/2.4A 4PCS	
Charging Type	PWM			
Charge circuit voltage drop	<=0.25V			
Discharge circuit voltage drop	<=0.1V			
Temperature Consumption#	For 12Vsystem:-24mV/°C; ×2/24V			
Relative Humidity	≤95%, N.C.			
Working Temperature	-20°C~+55°C (Product can work continuously at full load)			
LCD temperature range	-20°C~+70°C			
Protection Level	IP32			
Mounting hole size	φ5mm			
Terminals	10mm ² /8AWG	16mm ² /6AWG	25mm ² /4AWG	25mm ² /4AWG
Weight	350g	450g	690g	780g
Overall dimension (mm)	165*120*39.4	170*130*50	190*145*55	

#when battery type is setted to Lithium battery, Temperature consumption is 0,unchangeable.

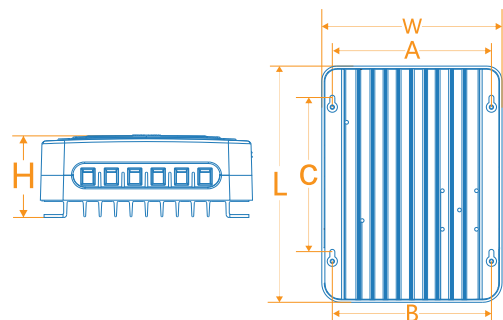
✘ Above the parameters are in 12V system at 25°C, twice in 24V system and quadruple in 48V system.

*The default value is set based on the lead-acid battery. For other battery type please refer to the manual.

Mechanical Size

20A, 30A, 50A, 60A

Charge and load current	20A	30A	50A	60A
Size (L*W*H)mm	165*123*46	195*123*46	205*157*53	256*157*53
Mounting holes distance (AxBxC)mm	84*92*134	111*114*124	128*128*124	128*128*124
Mounting hole size	φ5mm			
Weight	0.35Kg	0.45Kg	0.69Kg	0.78Kg
Terminal scale	10mm ² /8AWG	16mm ² /6AWG	25mm ² /6AWG	



● Please refer to the indicator diagram on the right

● Dimension reference drawing

Safety Protection



Over Charging Protection



Over Discharging Protection



Overload Protection



Short Circuit Protection



Battery Over-Voltage Protection



Temperature Compensation



Over Temperature Protection



Thunder Protection



Solar Reverse Connected Protection



EMC Protection



Battery Reverse Connected Protection



Power Limited Protection



Reverse Flow of Current Protection



Solar Short Circuit Protection



Overheating Power Reduction Protection



Solar Over-Voltage Protection





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