



The **WISE** Choice

EASTMAN WORLD

Welcome to Eastman World - Your Global Partner in Energy Solutions!



MPPT SOLAR CHARGE CONTROLLERS

MPPT | PWM

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 and Africa, providing 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 (tubular, carbon, gel and lithium) 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.





MPPT SOLAR CHARGE CONTROLLER

15A / 20A / 30A / 40A

Introduction

Engineered to maximize energy output from your panels, these controllers utilize cutting-edge technology to ensure optimal performance in any environment. Easy to use and highly efficient, they're your gateway to harnessing clean energy effortlessly.

Safety

- Over Charging & 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

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.
- Accumulation function of charging and Discharging
- Wide MPPT Operating Voltage Range

Applications

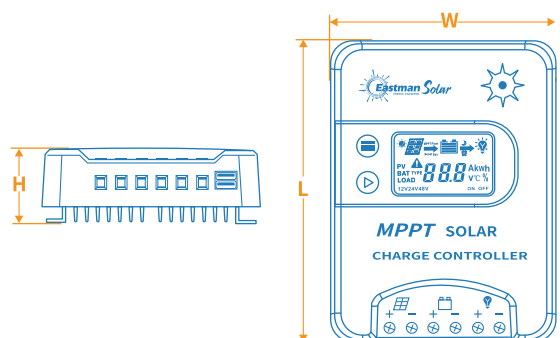
Solar RV, Household Solar Energy, Solar Street Lamp, Solar Power Generator, Solar Boat.

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

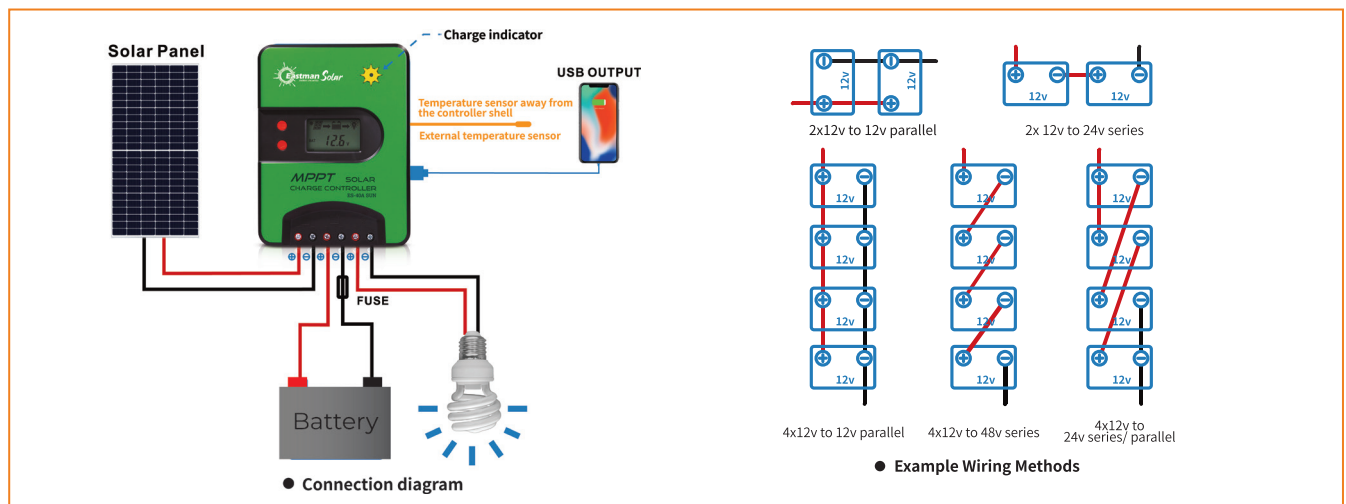
MODELS	ES-15A SUN 75V	ES-20A SUN 75V	ES-30A SUN 75V	ES-40A SUN 75V
System Voltage	12V/24V DC auto			
Working voltage range	8~32V			
Max.PV open circuit voltage	75V (Min.working temp) 70V (25°C)			
MPPT voltage range	(Battery voltage+2V) ~65V			
Discharge circuit voltage drop	≤0.25V			
Self-consumption	<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 SOLAR CHARGE CONTROLLER

30A 100V, 40A 100V | 45A 120V, 60A 120V
50A 150V, 60A 150V | 30A 150V, 40A 150V

Safety

- Over Charging & 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

Applications

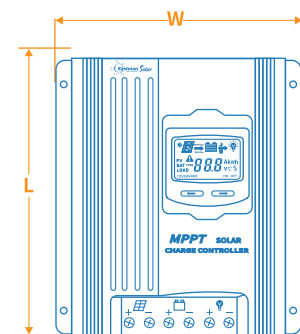
Solar RV, Household Solar Energy, Solar Street Lamp, Solar Power Generator, Solar Boat.

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

Introduction

Experience the forefront of solar energy optimization with our MPPT solar charge controllers, featuring a user-friendly LCD display, effortlessly monitor and manage your system with intuitive ease.

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.
- Accumulation function of charging and Discharging.
- Wide MPPT Operating Voltage Range.

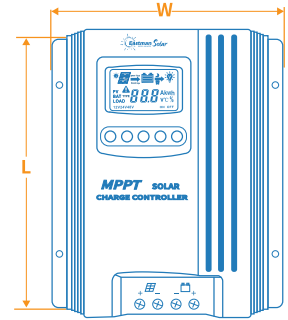
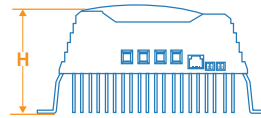
MPPT SOLAR CHARGE CONTROLLER



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

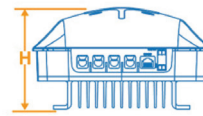


● Please refer to the indicator diagram on the right

● Dimension reference drawing

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

Charge 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

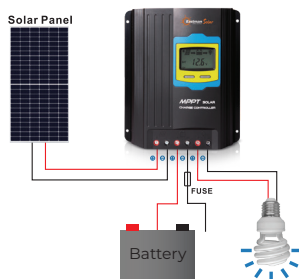


● Please refer to the indicator diagram on the right

● Dimension reference drawing

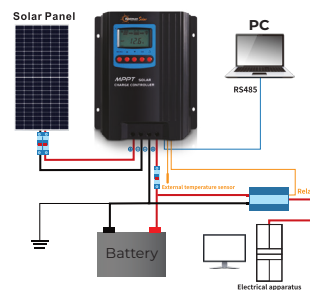
Connection Diagram

ES-30A SCC 100V
ES-40A SCC 100V



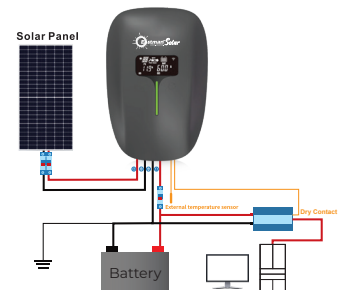
● Connection diagram

ES-50A SCC 150V
ES-60A SCC 150V



● Connection diagram

ES-45A SCC-120V, ES-60A SCC-120V
ES-30A SCC-150V, ES-40A SCC-150V



● Connection diagram

MPPT SOLAR CHARGE CONTROLLER



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 SOLAR CHARGE CONTROLLER 80A / 100A

Safety

- Over Charging & 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

Applications

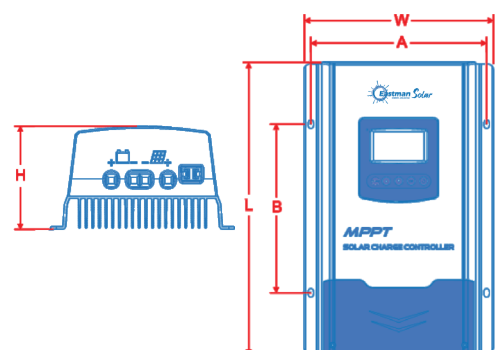
Solar RV, Household Solar Energy, Solar Street Lamp, Solar Power Generator, Solar Boat.

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

Introduction

Eastman SCC is the ultimate solution for various solar applications like household energy systems, solar street lamps, and power generators. With user-friendly controls, it's versatile and essential for sustainable, reliable solar energy usage.

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 lightning protection.
- Humanized LCD Displaying
- Accumulation function of charging and Discharging
- Wide MPPT Operating Voltage Range

MPPT SOLAR CHARGE CONTROLLER

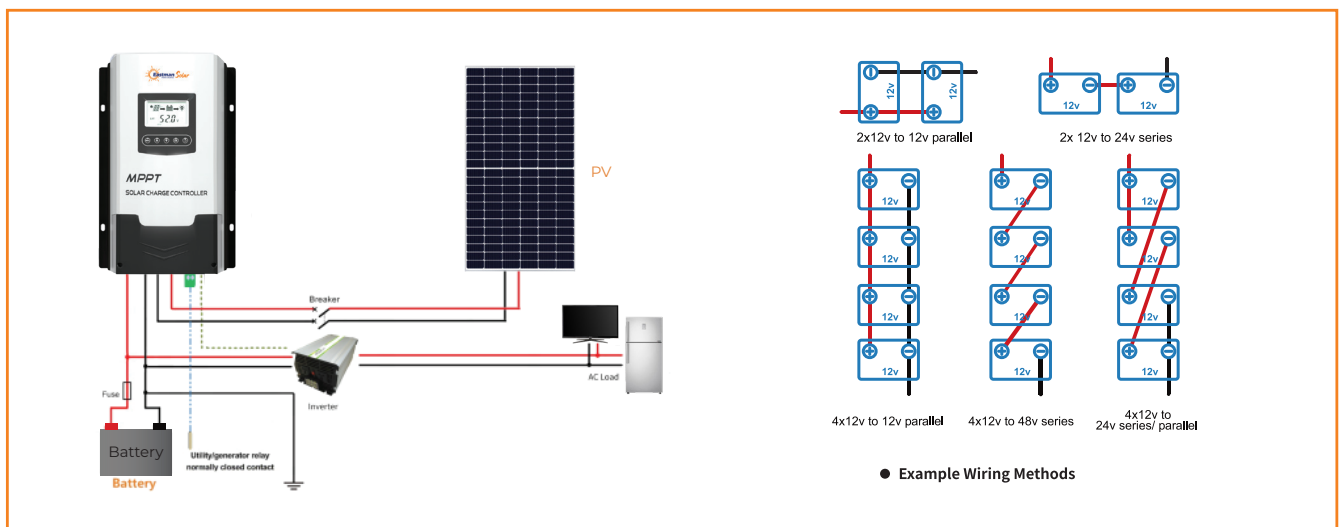


Product Specifications

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)O2/ 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





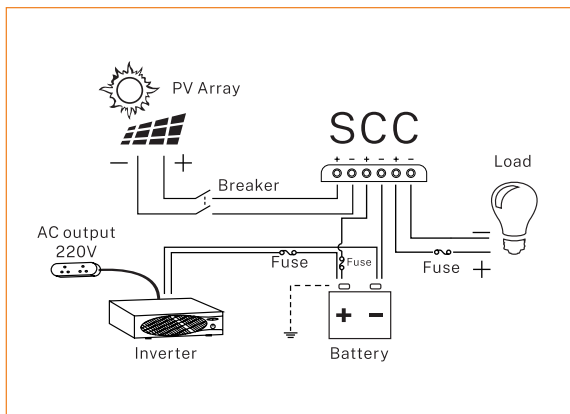
MPPT CHARGE CONTROLLER-ECO

40A | 60A | 80A | 100A

Introduction

Eastman MPPT Solar Charge Controller is a high-performance device designed to efficiently convert solar energy into usable power for charging batteries. With its Maximum Power Point Tracking (MPPT) technology, this controller can maximize the energy harvested from solar panels, ensuring optimal charging efficiency. Suitable for both residential and commercial solar systems, this MPPT Solar Charge Controller is a reliable and essential component for maximizing the performance of your solar power setup.

Solar Energy System Wiring Diagram



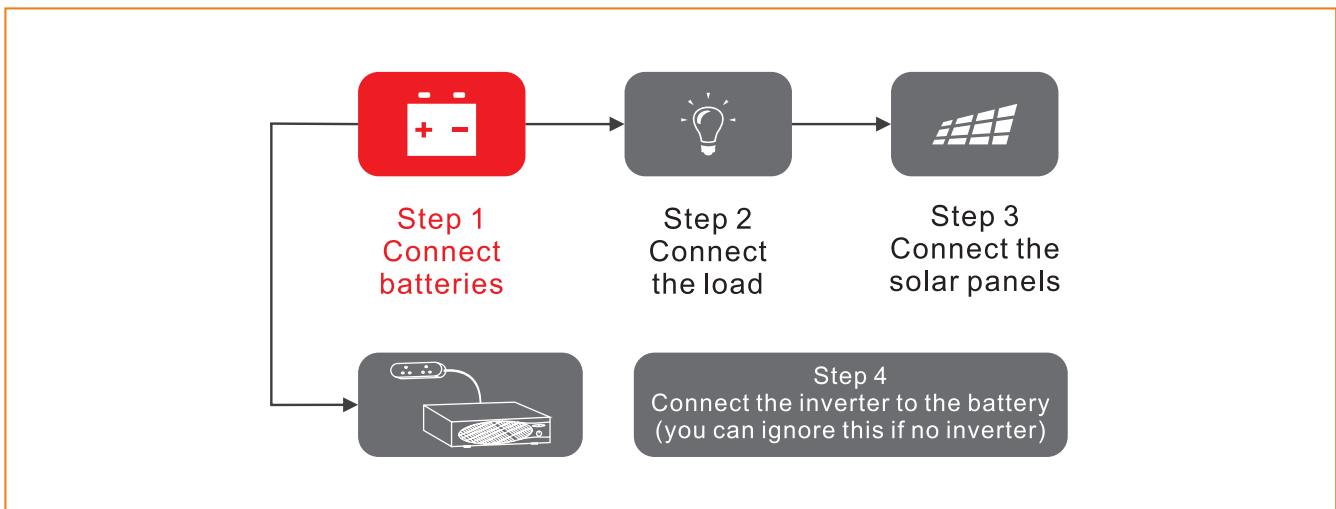
Product Features

- Advanced MPPT technology, fast and stable track the Maximum Power Point, tracking accuracy 99.00%.
- Adopt Synchronous Rectifier Technology, significantly improve the transfer efficiency of circuit, maximum 97.00%.
- 12/24VDC system voltage automatic recognition.
- Humanized LCD displaying, dynamic display operation data and working state.
- Temperature Compensation Function.

Certifications



Perform the Following Steps to Connect Cables and Install Them



MPPT CHARGE CONTROLLER-ECO



40A, 60A

Product Specifications

Models	ES40A-ECO 100V-SCC	ES60A-ECO 150V-SCC
Battery Type	"GEL, SLD,FLD and USR(default), Lithium batteries customization 3.7V*3s,3.7V*4s,3.2V*4s,3.2V*5s "	"GEL, SLD,FLD and USR(default), Lithium batteries customization 3.7V*3s,3.7V*4s,3.2V*4s,3.2V*5s "
Battery input voltage range	9~15VDC/18~30VDC	9~15VDC/18~30VDC/36~60VDC
Rated charge current	40A	60A
Rated discharge current	20A	20A
Display	LCD	LCD
Max PV Voc	<100V	<150V
Nominal system voltage	12V/24V	12V/24V/48V
Max efficiency	97.00%	97.00%
MPPT Efficiency	99.00%	99.00%
Cooling	Natural (without Fan)	Natural (without external Fan)
Self-consumption	"≤200mA(12v) ≤100mA(24v)"	"≤300mA(12v); ≤150mA(24v);≤100mA (48V) "
Temperature compensation	-3mv/°C/2v(Default)	-3mv/°C/2v(Default)
Relative Humidity	≤90%, N.C	≤90%, N.C
Enclosure	IP20	IP20
Communication Interface	RS232	RS232
Grounding	positive	positive
Operating Temperature	'-20~55 °C(environment 50 °C max current 2hours no derating)	'-20~55 °C(environment 50 °C max current 2hours no derating)
Dimension	260*190*120	280*270*135
Netweight	2.5kg	4.5kg
Warranty :	3 Years	3 Years
QTY of 20GP(PCS)	5148	1875
Remark:	Plastic box	Plastic box or metal box
Optional accessories	Wifi/Bluetooth	Wifi/Bluetooth
VOLTAGE		
MPPT Voltage Range	15~80VDC/30~80VDC	15~130VDC/30~130VDC/60~130VDC
Equilization Voltage	14.6V/29.2V	14.6V/29.2V/58.4V
Boost Voltage	Gel:14.2v/28.4v, sealed:14.4v/28.8v, flooded:14.6v/29.2v,	Gel:14.2v/28.4v/56.8v, sealed:14.4v/28.8v/57.6v, flooded:14.6v/29.2v/58.4v,
Float Voltage	Gel/sealed/flooded:13.8v,/27.6v	Gel/sealed/flooded:13.8v,/27.6v/55.2v
Reconnect voltage	Gel/sealed/flooded:12.6v,/25.2v	Gel/sealed/flooded:12.6v,/25.2v./50.4v
Disconnect voltage	Gel/sealed/flooded:10.8v,/21.6v	Gel/sealed/flooded:10.8v,/21.6./43.2v

MPPT CHARGE CONTROLLER-ECO



80A, 100A

Product Specifications

Models	ES80A-ECO 200V-SCC	ES100A-ECO 200V-SCC
Battery Type	"GEL, SLD,FLD and USR(default), Lithium batteries customization 3.7V*3s,3.7V*4s,3.2V*4s,3.2V*5s "	"GEL, SLD,FLD and USR(default), Lithium batteries customization 3.7V*3s,3.7V*4s,3.2V*4s,3.2V*5s "
Battery input voltage range	9~15VDC/18~30VDC/36~60VDC	9~15VDC/18~30VDC/36~60VDC
Rated charge current	80A	100A
Rated discharge current	40A	40A
Display	LCD	LCD
Max PV Voc	<200V	<200V
Nominal system voltage	12V/24V/48V	12V/24V/48V
Max efficiency	97.00%	97.00%
MPPT Efficiency	99.00%	99.00%
Cooling	Natural (without external Fan)	Natural (without external Fan)
Self-consumption	"≤300mA(12v); ≤150mA(24v);≤100mA (48V) "	"≤300mA(12v);≤150mA(24v);≤100mA (48V) "
Temperature compensation	-4mv/°C/2v(Default)	-4mv/°C/2v(Default)
Relative Humidity	≤90%, N.C	≤90%, N.C
Enclosure	IP20	IP20
Communication Interface	RS232	RS232
Grounding	positive	positive
Operating Temperature	'-20~55 °C(environment 50 °C max current 2hours no derating)	'-20~55 °C(environment 50 °C max current 2hours no derating)
Dimension	320*340*165	320*340*165
Netweight	7.5kg	8kg
Warranty :	3 Years	3 Years
QTY of 20GP(PCS)	2000	1200
Remark:	Plastic box or metal box	Plastic box or metal box
Optional accessories	Wifi/Bluetooth	Wifi/Bluetooth
VOLTAGE		
MPPT Voltage Range	15~170VDC/30~170VDC/60~170VDC	15~170VDC/30~170VDC/60~170VDC
Equilization Voltage	14.6V/29.2V/58.4V	14.6V/29.2V/58.4V
Boost Voltage	Gel:14.2v/28.4v/56.8v, sealed:14.4v/28.8v/57.6v, flooded:14.6v/29.2v/58.4v,	Gel:14.2v/28.4v/56.8v, sealed:14.4v/28.8v/57.6v, flooded:14.6v/29.2v/58.4v
Float Voltage	Gel/sealed/flooded:13.8v,/27.6v/55.2v	Gel/sealed/flooded:13.8v,/27.6v/55.2v
Reconnect voltage	Gel/sealed/flooded:12.6v,/25.2v./50.4v	Gel/sealed/flooded:12.6v,/25.2v./50.4v
Disconnect voltage	Gel/sealed/flooded:10.8v,/21.6./43.2v	Gel/sealed/flooded:10.8v,/21.6./43.2v



www.eastmanworld.com
marketing@eastmanworld.com

AMPS MIDDLE EAST FZ LLC

#703, 7TH Floor, Deira Twin Tower,
Baniyas Square, Deira, Dubai (UAE)

EASTMAN AUTO & POWER LTD.

ASF Towers, 249, Udyog Vihar Phase-4, Gurugram,
Haryana-122016, India

GUANGDONG EASTMAN NEW ENERGY CO., LTD

#1602, Meilan business centre, Intersection of Xixiang Avenue
and Qianjin Second Road, Bao'an, District, Shenzhen-518102, China

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