



**samlexsolar®**  
A Division of Samlex America Inc.

**20A**



**Charge Controller  
MPPT Series**

**Model  
Steca Solarix  
MPPT-2010  
20 Amps**

**Design Features**

- Maximum Power Point Tracking (MPPT) for maximum energy capture
- PWM control
- Automatic battery voltage detection: 12V / 24V
- 20A charging current
- 10A load terminals for low voltage disconnect and auto reconnect
- Multistage, temperature compensated charging
- Colored LEDs for operational status, State of Charge and faults
- Electronic protections
- CE and RoHS compliant
- **Applications:** Solar home systems, telecommunications, recreation vehicles.

**2 YEAR WARRANTY**



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PARAMETER		SPECIFICATIONS – MODEL Steca Solarix MPPT-2010	
		12V BATTERY SYSTEM	24V BATTERY SYSTEM
<b>SYSTEM</b>	TYPE	MPPT	
	BATTERY TYPE	Factory preset for Lead Acid - Liquid Type (Flooded)	
	NOMINAL SYSTEM VOLTAGE	12V or 24V Auto Detection	
	NOMINAL OUTPUT POWER	250W	500W
	SELF CONSUMPTION	10mA	10mA
	MAXIMUM EFFICIENCY	> 98%	> 98%
<b>INPUT SIDE (Solar Panel/Array)</b>	OPEN CIRCUIT VOLTAGE, Voc (at min. operating temp.)	17V to 100V	34V to 100V
	MAXIMUM POWER POINT (MPP) VOLTAGE, Vmp	>15V to <100V	>30V to <100V
	MAXIMUM SHORT CIRCUIT CURRENT, Isc	18A	18A
<b>CHARGING CHARACTERISTICS</b>	CHARGING CURRENT	20A	20A
	BOOST CHARGE VOLTAGE	14.4VDC	28.8VDC
	END OF CHARGE VOLTAGE	13.9VDC	27.8VDC
	EQUALIZATION VOLTAGE	14.7 VDC	29.4 VDC
	INTERNAL TEMPERATURE COMPENSATION Voltage Coefficient of Temperature: - 4mV/°K/Cell	- 24mV/°K	- 48mV/°K
<b>LOAD CONTROL</b>	LOAD CURRENT	10A	10A
	LOW VOLTAGE DISCONNECT (LVD)	11.5V	23V
	LOW VOLTAGE RECONNECT (LVR)	12.5V	25V
	NIGHT LIGHT FUNCTION	Factory preset in OFF condition	Factory preset in OFF condition
<b>MONITORING AND DISPLAY</b>	DISPLAY TYPE	5 Multicolor LEDs	5 Multicolor LEDs
	OPERATING PARAMETERS DISPLAYED	Normal Operation, State of Charge, Load Status and Faults	
<b>INPUT/OUTPUT CONNECTIONS</b>	TYPE AND WIRE SIZE	Terminal with 4mm dia. tubular hole and setscrew. Will accommodate: <b>Conductor - Stranded wire: 16mm<sup>2</sup> / AWG #6</b> <b>Conductor - Solid wire: 25mm<sup>2</sup> / AWG #4</b>	
<b>SAFETY</b>	PROTECTIONS	Overload/short circuit on PV & Load sides; Over temperature (measured inside the microcontroller); Over charge & deep discharge; Over voltage at PV input; Reverse polarity of PV panel; Reverse Battery and Load polarity; Reverse current protection at night.	
<b>COMPLIANCE</b>	SAFETY	CE marked - Low Voltage Directive 2006/95/EG	
	ELECTROMAGNETIC COMPATIBILITY	CE marked - 2004/108/EG	
	EUROPEAN STANDARD	EN60730-1; EN60730-2-11	
	ROHS QUALITY	Compliant ISO-9001; ISO-14001	
<b>ENVIRONMENTAL</b>	OPERATING AMBIENT TEMPERATURE	-25°C to + 40°C / -13°F to +104°F	
	INGRESS PROTECTION	IP 32	
<b>GENERAL</b>	DIMENSIONS (W x D x H)	187 x 153 x 68 mm / 7.36 x 6.02 x 2.68 in	
	WEIGHT	Approx. 900 gm. / 2 lb.	



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**NOTES:**

- All voltages are specified at 25°C / 77°F
- Special Order (Minimum Order Quantity applicable) with following customized programming. Customized programming is also possible with optional Programming Remote Control Model No. PA RC100:

Boost Voltage:	12V Battery: 14.0V to 14.9V; 24V Battery: 28.0V to 29.8V.
End of Charge Voltage:	12V Battery: 13.5V to 14.4V; 24V Battery: 27.0V to 28.8V.
Equalization Voltage:	12V Battery: 14.4V to 15.3V; 24V Battery: 28.8V to 30.6V.
Battery Type:	Liquid (Flooded / AGM) with Equalization; Gel without Equalization
Load Disconnect:	12V Battery: 10.8V to 12.3V; 24V Battery: 21.6V to 24.6V
Load Reconnect:	12V Battery: 11.5V to 12.9V; 24V Battery: 23.0V to 25.8V
Night Light Function:	OFF / ON or for set duration of 1 to 8 Hrs

- Optional external Temperature Sensor PA TS10 for battery temperature sensing & compensation.