

## Steca PR

PR 0303, PR 0505

The Steca PR 0303 and PR 0505 solar charge controllers are optimally suited for use in small solar home systems with module currents up to 5 A.

A 75 Wp module can be connected, which easily allows operation of lamps, radios and a small television. All loads can be switched off using the manual load switch on the controller. The extremely low own consumption makes the Steca PR especially suitable for professional applications in telecommunications and traffic management technology. Since this is a serial controller, it is extremely flexible in the type of power source that can be connected. The electronic fuse makes the controller completely maintenance-free and robust.

### Product features

- Series controller
- Voltage regulation
- PWM control
- Multistage charging technology
- Current compensated load disconnection
- Automatic load reconnection
- Temperature compensation
- Common positive grounding or negative grounding on one terminal

### Electronic protection functions

- Overcharge protection
- Deep discharge protection
- Reverse polarity protection of load, module and battery
- Automatic electronic fuse
- Short circuit protection of load and module
- Overvoltage protection at module input
- Open circuit protection without battery
- Reverse current protection at night
- Overtemperature and overload protection
- Battery overvoltage shutdown

### Displays

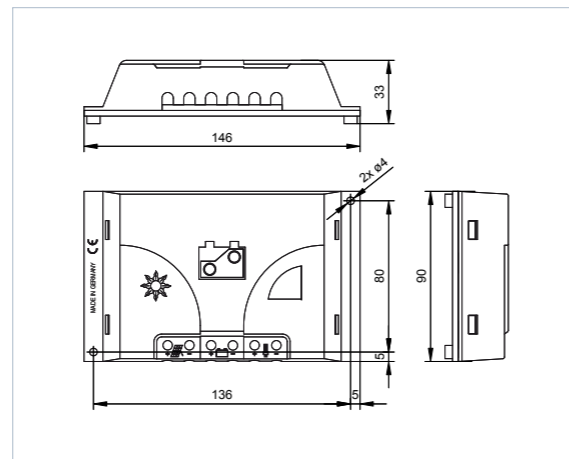
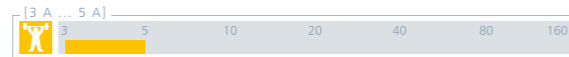
- Multi-coloured LED
- 3 multi-coloured LEDs show operating states
- for operation, state of charge, fault messages

### Operation

- Manual load switch

### Certificates

- Approved by the World Bank for Laos
- Compliant with European Standards (CE)
- RoHS compliant
- Made in Germany
- Developed in Germany
- Manufactured according to ISO 9001 and ISO 14001



	PR 0303	PR 0505
<b>Characterisation of the operating performance</b>		
System voltage	12 V	
Own consumption	3 mA	
<b>DC input side</b>		
Open circuit voltage solar module	< 47 V	
Module current	3 A	5 A
<b>DC output side</b>		
Load current	3 A	5 A
End of charge voltage	13.7 V	
Boost charge voltage	14.4 V	
Reconnection voltage (LVR)	12.5 V	
Deep discharge protection (LVD)	11 V ... 11.5 V	
<b>Operating conditions</b>		
Ambient temperature	-25 °C ... +50 °C	
<b>Fitting and construction</b>		
Terminal (fine / single wire)	6 mm <sup>2</sup> / 10 mm <sup>2</sup> - AWG 10 / 8	
Degree of protection	IP 32	
Dimensions (X x Y x Z)	146 x 90 x 33 mm	
Weight	160 g	

Technical data at 25 °C / 77 °F

## Steca Solsum F

6.6F, 8.8F, 10.10F

The Steca Solsum F-Line continues the huge success of one of the most used SHS controllers. With a power range of up to 10 A at automatically recognized 12 V or 24 V it fits to a system sizes of maximum 240 W.

The circuit board is completely electronically protected and with the LED user interface it is easy to check the battery state of charge at any time. Large terminals guarantee a simple connection of solar panels, battery and load. The Steca Solsum F works on PWM as a low loss series controller.

### Product features

- Series controller
- Voltage regulation
- Automatic detection of voltage
- PWM control
- Multistage charging technology
- Current compensated load disconnection
- Automatic load reconnection
- Temperature compensation
- Common positive grounding or negative grounding on one terminal
- Monthly maintenance charge

### Electronic protection functions

- Overcharge protection
- Deep discharge protection
- Reverse polarity protection of load, module and battery
- Automatic electronic fuse
- Short circuit protection of load and module
- Overvoltage protection at module input
- Open circuit protection without battery
- Reverse current protection at night
- Overtemperature and overload protection
- Battery overvoltage shutdown

### Displays

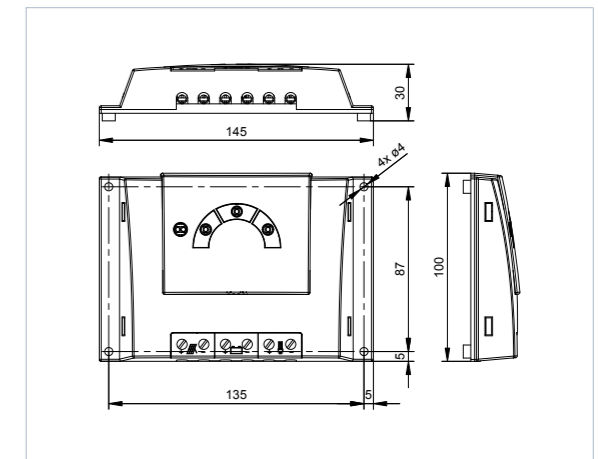
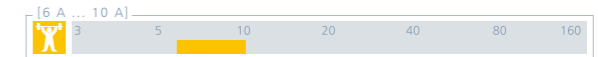
- Multifunction LED display
- Multi-coloured LED
- 4 LEDs show operating states
- for operation, state of charge, fault messages

### Options

- Night light function pre-set in the factory or adjustable via Steca PA RC 100
- Parameterisation of function values via Steca PA RC 100

### Certificates

- Compliant with European Standards (CE)
- RoHS compliant
- Developed in Germany
- Manufactured according to ISO 9001 and ISO 14001



	6.6F	8.8F	10.10F
<b>Characterisation of the operating performance</b>			
System voltage	12 V (24 V)		
Own consumption	< 4 mA		
<b>DC input side</b>			
Open circuit voltage solar module	< 47 V		
Module current	6 A	8 A	10 A
<b>DC output side</b>			
Load current	6 A	8 A	10 A
End of charge voltage	13.9 V (27.8 V)		
Boost charge voltage	14.4 V (28.8 V)		
Reconnection voltage (LVR)	12.4 V ... 12.7 V (24.8 V ... 25.4 V)		
Deep discharge protection (LVD)	11.2 V ... 11.6 V (22.4 V ... 23.2 V)		
<b>Operating conditions</b>			
Ambient temperature	-25 °C ... +50 °C		
<b>Fitting and construction</b>			
Terminal (fine / single wire)	4 mm <sup>2</sup> / 6 mm <sup>2</sup> - AWG 12 / 9		
Degree of protection	IP 32		
Dimensions (X x Y x Z)	145 x 100 x 30 mm		
Weight	approx. 150 g		

Technical data at 25 °C / 77 °F



Steca PA RC100  
Remote control  
(page 56)

[areas of application]



[areas of application]



## Steca PR Night

PR 0606N, PR 1010N

The Steca PR Night is designed for operating automatic night light systems and is suitable for solar systems of up to 300 Wp module output.

This controller is thus especially suitable for streetlights, bus stops, advertising lighting and other similar applications. The charge controller determines the actual solar time via the solar module. This integrated clock can be used to define how long after sunset, or before sunrise, the light is to be switched on or off.

### Product features

- Hybrid controller
- State of charge determination with Steca AtonIC (SOC)
- Automatic detection of voltage
- PWM control
- Multistage charging technology
- Load disconnection depending on SOC
- Automatic load reconnection
- Temperature compensation
- Common positive grounding or negative grounding on one terminal
- Night light function
- Integrated self test
- Monthly maintenance charge

### Electronic protection functions

- Overcharge protection
- Deep discharge protection
- Reverse polarity protection of load, module and battery
- Automatic electronic fuse
- Short circuit protection of load and module
- Overvoltage protection at module input
- Open circuit protection without battery
- Reverse current protection at night
- Overtemperature and overload protection
- Battery overvoltage shutdown

### Displays

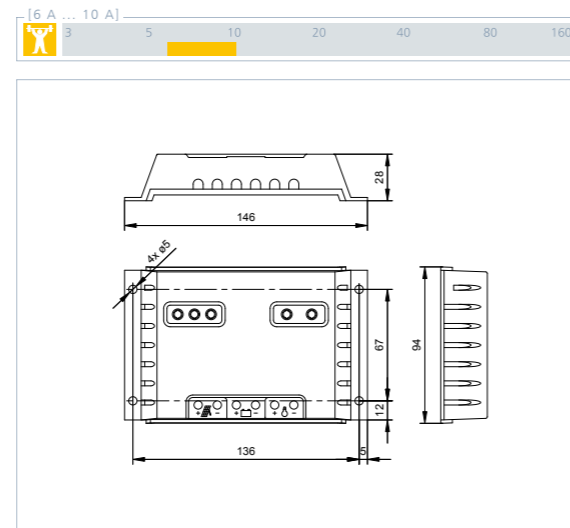
- Multi-coloured LED
- 3 multi-coloured LEDs show operating states – for operation, state of charge, fault messages

### Operation

- Programming by buttons
- Manual load switch

### Certificates

- Approved by the World Bank for Laos
- Compliant with European Standards (CE)
- RoHS compliant
- Made in Germany
- Developed in Germany
- Manufactured according to ISO 9001 and ISO 14001



	PR 0606N	PR 1010N
<b>Characterisation of the operating performance</b>		
System voltage	12 V (24 V)	
Own consumption	6 mA	
<b>DC input side</b>		
Open circuit voltage solar module	< 47 V	
Module current	6 A	10 A
<b>DC output side</b>		
Load current	6 A	10 A
End of charge voltage	13.7 V (27.4 V)	
Boost charge voltage	14.4 V (28.8 V)	
Equalisation charge	14.7 V or 15 V (29.4 V)	
Reconnection voltage (SOC / LVR)	> 50 % / 12.6 V (25.2 V)	
Deep discharge protection (SOC / LVD)	< 30 % / 11.1 V (22.2 V)	
<b>Operating conditions</b>		
Ambient temperature	-25 °C ... +50 °C	
<b>Fitting and construction</b>		
Terminal (fine / single wire)	6 mm <sup>2</sup> / 10 mm <sup>2</sup> - AWG 10 / 8	
Degree of protection	IP 22	
Dimensions (X x Y x Z)	146 x 94 x 28 mm	
Weight	120 g	
Night-light function	19 h ... 3 h	
Morning-light function	23 h ... 7 h	

Technical data at 25 °C / 77 °F

## Steca PR

PR 1010, PR 1515, PR 2020, PR 3030

The Steca PR 10-30 series of charge controllers is the high-light in the range.

The latest charging technologies, combined with a Steca-AtonIC state of charge determination which has been significantly improved once again, result in optimal battery maintenance and control of the module output of up to 900 Wp which can be connected to it. A large display informs the user about all operating modes with the aid of symbols. The state of charge is represented visually in the form of a tank display. Data such as voltage, current and state of charge can also be displayed digitally as figures on the display. In addition, the controller has an energy meter which can be reset by the user.

### Product features

- Hybrid controller
- State of charge determination with Steca AtonIC (SOC)
- Automatic detection of voltage
- PWM control
- Multistage charging technology
- Load disconnection depending on SOC
- Automatic load reconnection
- Temperature compensation
- Common positive grounding or negative grounding on one terminal
- Integrated data logger
- Night light function
- Integrated self test
- Monthly maintenance charge

### Electronic protection functions

- Overcharge protection
- Deep discharge protection
- Reverse polarity protection of load, module and battery
- Automatic electronic fuse
- Short circuit protection of load and module
- Overvoltage protection at module input
- Open circuit protection without battery
- Reverse current protection at night
- Overtemperature and overload protection
- Battery overvoltage shutdown

### Displays

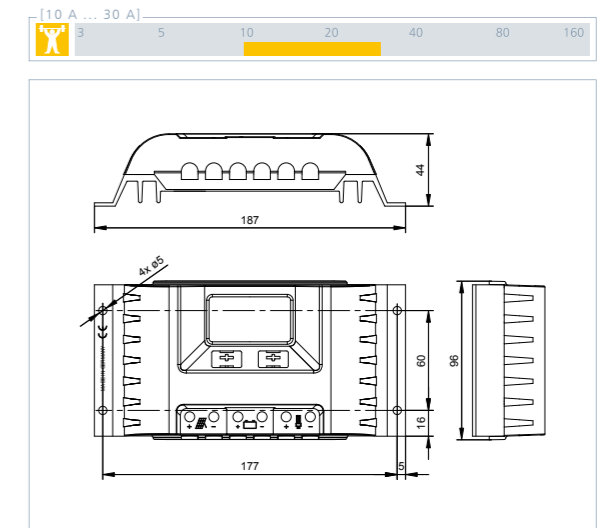
- Graphical LCD display – for operating parameters, fault messages, self test

### Operation

- Simple menu-driven operation
- Programming by buttons
- Manual load switch

### Certificates

- Approved by the World Bank for Nepal
- Compliant with European Standards (CE)
- RoHS compliant
- Made in Germany
- Developed in Germany
- Manufactured according to ISO 9001 and ISO 14001



	PR 1010	PR 1515	PR 2020	PR 3030
<b>Characterisation of the operating performance</b>				
System voltage	12 V (24 V)			
Own consumption	12.5 mA			
<b>DC input side</b>				
Open circuit voltage solar module	< 47 V			
Module current	10 A	15 A	20 A	30 A
<b>DC output side</b>				
Load current	10 A	15 A	20 A	30 A
End of charge voltage	liquid 13.9 V (27.8 V); gel 14.1 V (28.2 V)			
Boost charge voltage	14.4 V (28.8 V)			
Equalisation charge	14.7 V (29.4 V)			
Reconnection voltage (SOC / LVR)	> 50 % / 12.6 V (25.2 V)			
Deep discharge protection (SOC / LVD)	< 30 % / 11.1 V (22.2 V)			
<b>Operating conditions</b>				
Ambient temperature	-10 °C ... +50 °C			
<b>Fitting and construction</b>				
Terminal (fine / single wire)	16 mm <sup>2</sup> / 25 mm <sup>2</sup> - AWG 6 / 4			
Degree of protection	IP 32			
Dimensions (X x Y x Z)	187 x 96 x 44 mm			
Weight	350 g			

Technical data at 25 °C / 77 °F

### Options

- Prepayment interface
- External temperature sensor
- Alarm contact (page 51)



Steca PA TS10  
External temperature sensor  
(page 51)

[areas of application]



[areas of application]



## Steca PR 2020 IP

IP 65 version

The functionality of the Steca PR 2020 IP is based on the Steca PR line of solar charge controllers.

This is equipped with a large display which shows the current state of charge (SOC) as a percentage and graphically in the form of a tank. The key component of the charge controller is the state of charge determination, which has been significantly improved. The auto-adaptive state of charge algorithm results in optimal battery maintenance and control over the module output of up to 480 Wp which can be connected to it. The Steca PR 2020 IP has been specially designed for operation in difficult environments with high salt, moisture and dust content.

### Product features

- Hybrid controller
- State of charge determination with Steca AtonIC (SOC)
- Automatic detection of voltage
- PWM control
- Multistage charging technology
- Load disconnection depending on SOC
- Automatic load reconnection
- Temperature compensation
- Common positive grounding or negative grounding on one terminal
- Integrated data logger
- Night light function
- Integrated self test
- Monthly maintenance charge
- Integrated energy meter

### Electronic protection functions

- Overcharge protection
- Deep discharge protection
- Reverse polarity protection of load, module and battery
- Automatic electronic fuse
- Short circuit protection of load and module
- Overvoltage protection at module input
- Open circuit protection without battery
- Reverse current protection at night
- Overtemperature and overload protection
- Battery overvoltage shutdown

### Displays

- Graphical LCD display
- for operating parameters, fault messages, self test

### Operation

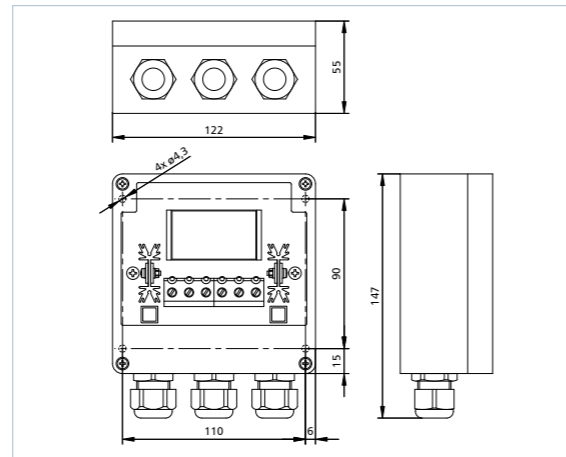
- Programming by buttons
- Manual load switch

### Options

- External temperature sensor (page 51)
- Alarm contact\* (page 51)

### Certificates

- Fit for use in tropical areas (DIN IEC 68 part 2-30)
- Compliant with European Standards (CE)
- RoHS compliant
- Made in Germany
- Developed in Germany
- Manufactured according to ISO 9001 and ISO 14001



	PR 2020-IP
<b>Characterisation of the operating performance</b>	
System voltage	12 V (24 V)
Own consumption	12 mA
<b>DC input side</b>	
Open circuit voltage solar module	< 47 V
Module current	20 A
<b>DC output side</b>	
Load current	20 A
End of charge voltage	liquid 13.9 V (27.8 V); gel 14.1 V (28.2 V)
Boost charge voltage	14.4 V (28.8 V)
Equalisation charge	14.7 V (29.4 V)
Reconnection voltage (SOC / LVR)	> 50 % / 12.6 V (25.2 V)
Deep discharge protection (SOC / LVD)	< 30 % / 11.1 V (22.2 V)
<b>Operating conditions</b>	
Ambient temperature	-10 °C ... +50 °C
<b>Fitting and construction</b>	
Terminal (fine / single wire)	16 mm <sup>2</sup> / 25 mm <sup>2</sup> - AWG 6 / 4
Degree of protection	IP 65
Dimensions (X x Y x Z)	122 x 147 x 55 mm
Weight	350 g

Technical data at 25 °C / 77 °F

## Steca Solarix PRS

PRS 1010, PRS 1515, PRS 2020, PRS 3030

The simplicity and high performance of the Steca Solarix PRS solar charge controller make it particularly appealing. At the same time, it offers a modern design and a convenient display, all at an extremely attractive price.

Several LEDs in various colours emulate a tank display, which gives information on the battery's state of charge. Here, Steca's latest algorithms are employed, resulting in optimal battery maintenance. The Solarix PRS charge controllers are equipped with an electronic fuse, thus making optimal protection possible. They operate on the serial principle, and separate the solar module from the battery in order to protect it against overcharging.

For larger projects, the charge controllers can also be equipped with special functions: e.g. with night light function and selectable charging plateau and deep-discharge protection voltages.

### Product features

- Series controller
- Automatic detection of voltage
- Voltage and current regulation
- PWM control
- Multistage charging technology
- Current compensated load disconnection
- Automatic load reconnection
- Temperature compensation
- Common positive grounding or negative grounding on one terminal
- Integrated self test
- Monthly maintenance charge

### Electronic protection functions

- Overcharge protection
- Deep discharge protection
- Reverse polarity protection of load, module and battery
- Automatic electronic fuse
- Short circuit protection of load and module
- Overvoltage protection at module input
- Open circuit protection without battery
- Reverse current protection at night
- Overtemperature and overload protection
- Battery overvoltage shutdown

### Displays

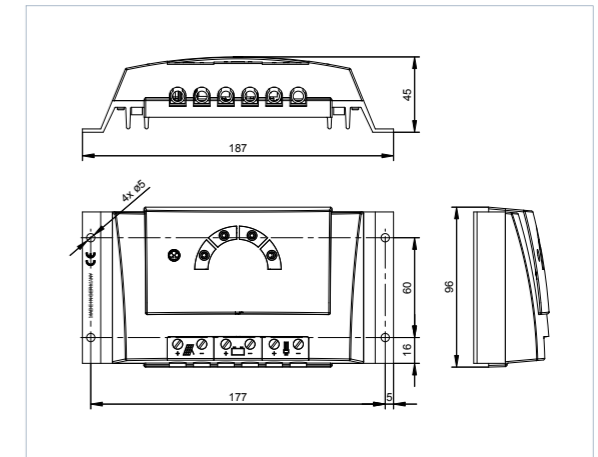
- Multifunction LED display
- Multi-coloured LED
- 5 LEDs show operating states
- for operation, state of charge, fault messages

### Options

- Night light function pre-set in the factory or adjustable via Steca PA RC 100
- Parameterisation of function values via Steca PA RC 100

### Certificates

- Compliant with European Standards (CE)
- RoHS compliant
- Made in Germany
- Developed in Germany
- Manufactured according to ISO 9001 and ISO 14001



	PRS 1010	PRS 1515	PRS 2020	PRS 3030
<b>Characterisation of the operating performance</b>				
System voltage	12 V (24 V)			
Own consumption	< 4 mA			
<b>DC input side</b>				
Open circuit voltage solar module	< 47 V			
Module current	10 A	15 A	20 A	30 A
<b>DC output side</b>				
Battery voltage	9 V ... 17 V (17.1 V ... 34 V)			
Load current	10 A	15 A	20 A	30 A
End of charge voltage	13.9 V (27.8 V)			
Boost charge voltage	14.4 V (28.8 V)			
Equalisation charge	14.7 V (29.4 V)			
Reconnection voltage (LVR)	12.4 V ... 12.7 V (24.8 V ... 25.4 V)			
Deep discharge protection (LVD)	11.2 V ... 11.6 V (22.4 V ... 23.2 V)			
<b>Operating conditions</b>				
Ambient temperature	-25 °C ... +50 °C			
<b>Fitting and construction</b>				
Terminal (fine / single wire)	16 mm <sup>2</sup> / 25 mm <sup>2</sup> - AWG 6 / 4			
Degree of protection	IP 32			
Dimensions (X x Y x Z)	187 x 96 x 45 mm			
Weight	345 g			

Technical data at 25 °C / 77 °F



Steca PA RC100  
Remote control  
(page 56)



\*special version, if the alarm option is needed, this needs to be mentioned on the purchase order.



## Steca Solarix MPPT

### MPPT 2010

Steca Solarix MPPT 2010 is a solar charge controller with Maximum Power Point Tracking. It is specially designed to work with all established module technologies and is optimized for solar systems with module voltages higher than the battery voltage. The Steca Solarix MPPT 2010 is especially qualified in combination with grid tied solar modules. The advanced MPP-tracking algorithm from Steca assures that the maximum available power of the solar generator is charged to the batteries. The Steca Solarix MPPT 2010 with latest technology ensures full performance in all conditions, a professional battery care combined with modern design and excellent protection.

#### Product features

- Maximum Power Point Tracker (MPP tracker)
- Voltage and current regulation
- PWM control
- Current compensated load disconnection
- Automatic load reconnection
- Temperature compensation
- Monthly maintenance charge

#### Electronic protection functions

- Overcharge protection
- Deep discharge protection
- Reverse polarity protection of load, module and battery
- Reverse polarity protection by internal fuse
- Automatic electronic fuse
- Short circuit protection
- Overvoltage protection at module input
- Open circuit protection without battery
- Reverse current protection at night
- Overtemperature and overload protection
- Battery overvoltage shutdown

#### Displays

- Multifunction LED display
- Multi-coloured LED
- 5 LEDs show operating states
- for operation, state of charge, fault messages

#### Options

- Night light function pre-set in the factory or adjustable via Steca PA RC 100
- Parameterisation of function values via Steca PA RC 100
- External temperature sensor

#### Certificates

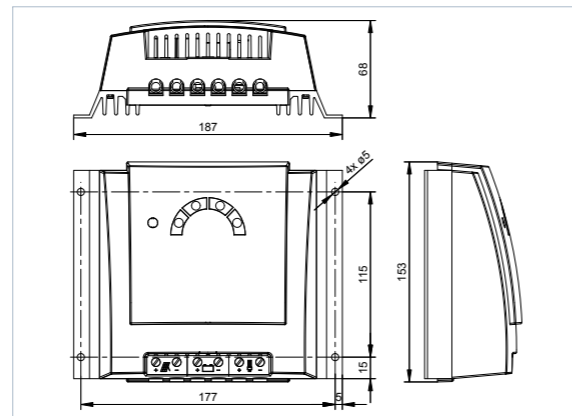
- Compliant with European Standards (CE)
- RoHS compliant
- Made in Germany
- Developed in Germany
- Manufactured according to ISO 9001 and ISO 14001



**Steca PA T510**  
External temperature sensor  
(page 51)

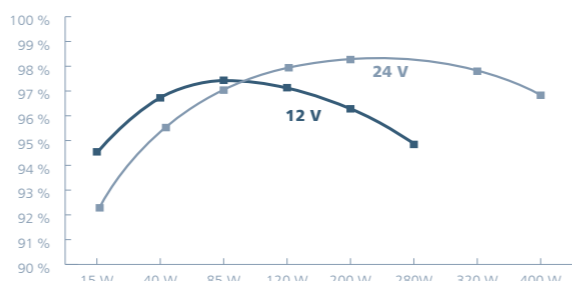


**Steca PA RC100**  
Remote control  
(page 56)



	MPPT
<b>Characterisation of the operating performance</b>	
System voltage	12 V (24 V)
Nominal power	250 W (500 W)
Max. efficiency	> 98 %
Own consumption	10 mA
<b>DC input side</b>	
MPP voltage	15 V (30 V) < V <sub>module</sub> << 100 V
Open circuit voltage solar module ** (at minimum operating temperature)	17 V ... 100 V (34 V ... 100 V)
Module current	18 A
<b>DC output side</b>	
Charge current	20 A
Load current	10 A
End of charge voltage*	13.9 V (27.8 V)
Boost charge voltage*	14.4 V (28.8 V)
Equalisation charge*	14.7 V (29.4 V)
Reconnection voltage* (LVR)	12.5 V (25 V)
Deep discharge protection* (LVD)	11.5 V (23 V)
<b>Operating conditions</b>	
Ambient temperature	-25 °C ... +40 °C
<b>Fitting and construction</b>	
Terminal (fine / single wire)	16 mm <sup>2</sup> / 25 mm <sup>2</sup> - AWG 6 / 4
Degree of protection	IP 32
Dimensions (X x Y x Z)	187 x 153 x 68 mm
Weight	approx. 900 g

\* see options  
\*\*CAUTION: If an open circuit voltage of more than 100 V is supplied to the connected solar module, the controller will be destroyed. When selecting the solar module, it is important to bear in mind that the open circuit voltage should never exceed 100 V over the entire working temperature range. When using solar modules with a maximum open circuit voltage of between 75 and 100 V (over the entire temperature range), all installation steps must be carried in accordance with protection class II.



## Steca Solarix

### 2401, 4401

The solar charge controllers Steca Solarix 2401 and 4401 are optimally suited for inverter systems. The controller combines basic solar charger functions with a 40 A high-performance charge controller. It is available as 12 V / 24 V and 48 V system. This makes the solar charge controller very cost effective.

The load current is limited to 10 A. The charging processes are based on the voltage level, which can be individually set with the help of four buttons behind the front casing.

#### Product features

- Hybrid controller
- Voltage regulation
- Automatic detection of voltage
- PWM control
- Multistage charging technology
- Load disconnection depending on voltage
- Automatic load reconnection
- Temperature compensation
- Common positive grounding or negative grounding on one terminal
- Integrated self test
- Monthly maintenance charge

#### Electronic protection functions

- Overcharge protection
- Deep discharge protection
- Reverse polarity protection of load, module and battery
- Reverse polarity protection by internal fuse
- Automatic electronic fuse
- Short circuit protection of load and module
- Overvoltage protection at module input
- Open circuit protection without battery
- Reverse current protection at night
- Overtemperature and overload protection
- Battery overvoltage shutdown

#### Displays

- Text LCD display
- for operating parameters, fault messages, self test

#### Operation

- Simple menu-driven operation
- Programming by buttons
- Manual load switch

#### Interfaces

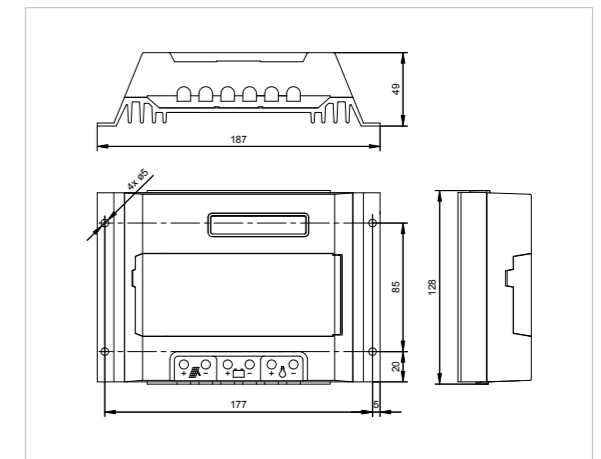
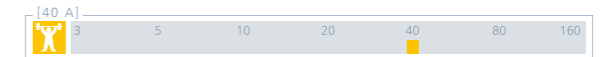
- RJ45 interface

#### Options

- External temperature sensor
- Alarm contact (page 51)

#### Certificates

- Compliant with European Standards (CE)
- Made in Germany
- Developed in Germany
- Manufactured according to ISO 9001 and ISO 14001



	2401	4401
<b>Characterisation of the operating performance</b>		
System voltage	12 V (24 V)	48 V
Own consumption	14 mA	
<b>DC input side</b>		
Module current	40 A	
<b>DC output side</b>		
Load current	10 A	
End of charge voltage	13.7 V (27.4 V)	54.8 V
Boost charge voltage	14.4 V (28.8 V)	57.6 V
Equalisation charge	14.7 V (29.4 V)	58.8 V
Reconnection voltage (LVR)	12.6 V (25.2 V)	50.4 V
Deep discharge protection (LVD)	11.1 V (22.2 V)	44.4 V
<b>Operating conditions</b>		
Ambient temperature	-10 °C ... +60 °C	
<b>Fitting and construction</b>		
Terminal (fine / single wire)	16 mm <sup>2</sup> / 25 mm <sup>2</sup> - AWG 6 / 4	
Degree of protection	IP 32	
Dimensions (X x Y x Z)	187 x 128 x 49 mm	
Weight	550 g	

Technical data at 25 °C / 77 °F



**Steca PA TSK10**  
External temperature sensor  
(page 51)

[areas of application]



[areas of application]



## Steca Tarom

235, 245, 440

The Steca Tarom is a solar charge controller specifically designed for use in telecommunications applications or in hybrid photovoltaic systems.

Numerous clever functions allow the user to adjust the controller to the particular features of the system in question. Thanks to the significantly improved state of charge determination, the system is optimally controlled and batteries are protected. The Steca Tarom charge controller is the best choice for system sizes of up to 2400 Wp at three voltage levels (12 V, 24 V, 48 V).

There is the option of connecting additional devices such as a temperature sensor, a data logger and a remote control for configuring and monitoring the system. An integrated Ah meter also provides the user with information on the energy budget of the application.

### Product features

- Hybrid controller
- State of charge determination with Steca AtonIC (SOC)
- Automatic detection of voltage
- PWM control
- Multistage charging technology
- Load disconnection depending on SOC
- Automatic load reconnection
- Temperature compensation
- Common positive grounding or negative grounding on one terminal
- Integrated data logger
- Night light function with Steca PA 15
- Integrated self test
- Monthly maintenance charge
- Integrated energy meter

### Electronic protection functions

- Overcharge protection
- Deep discharge protection
- Reverse polarity protection of load and module
- Reverse polarity protection by internal fuse
- Automatic electronic fuse
- Short circuit protection of load and module
- Overvoltage protection at module input
- Open circuit protection without battery
- Reverse current protection at night
- Overtemperature and overload protection
- Battery overvoltage shutdown

### Displays

- Text LCD display
- for operating parameters, fault messages, self test

### Operation

- Simple menu-driven operation
- Programming by buttons
- Manual load switch

### Interfaces

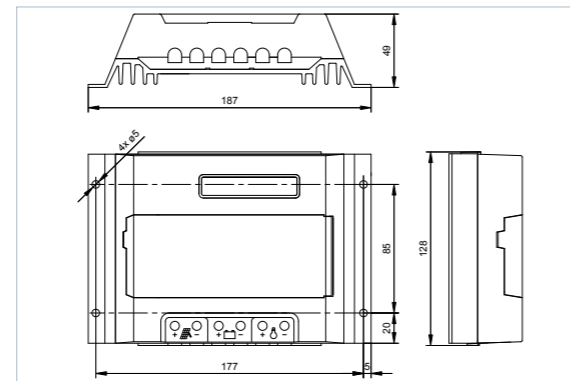
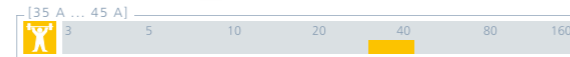
- RJ45 interface

### Options

- External temperature sensor
- Alarm contact (page 51)

### Certificates

- Approved by the World Bank for Nepal
- Compliant with European Standards (CE)
- Made in Germany
- Developed in Germany
- Manufactured according to ISO 9001 and ISO 14001



	235	245	440
<b>Characterisation of the operating performance</b>			
System voltage	12 V (24 V)		48 V
Own consumption	14 mA		
<b>DC input side</b>			
Module current	35 A	45 A	40 A
<b>DC output side</b>			
Load current	35 A	45 A	40 A
End of charge voltage	13.7 V (27.4 V)	54.8 V	
Boost charge voltage	14.4 V (28.8 V)	57.6 V	
Equalisation charge	14.7 V (29.4 V)	58.8 V	
Reconnection voltage (SOC / LVR)	> 50 % / 12.6 V (25.2 V)	> 50 % / 50.4 V	
Deep discharge protection (SOC / LVD)	< 30 % / 11.1 V (22.2 V)	< 30 % / 44.4 V	
<b>Operating conditions</b>			
Ambient temperature	-10 °C ... +60 °C		
<b>Fitting and construction</b>			
Terminal (fine / single wire)	16 mm <sup>2</sup> / 25 mm <sup>2</sup> - AWG 6 / 4		
Degree of protection	IP 32		
Dimensions (X x Y x Z)	187 x 128 x 49 mm		
Weight	550 g		

Technical data at 25 °C / 77 °F



**Steca PA TSK10**  
External temperature sensor  
(page 51)



**Steca PA Tarcom**  
Data logger  
(page 52)



**Steca PA HS200**  
Shunt  
(page 53)



**Steca PA 15**  
Remote control  
(page 54)

## Steca Power Tarom

2070, 2140, 4055, 4110, 4140

Specially designed for industrial and outdoor applications, the Steca Power Tarom comes with an IP 65 casing made of powder-coated steel.

This solar charge controller can be used to control system sizes of up to 8400 Wp at three voltage levels (12 V, 24 V, 48 V). The Steca Power Tarom is based on the technology of the Steca Tarom controller. When connected in parallel, several controllers from this series can be operated via a standard DC bus in a simple solar home system or a hybrid system. This allows an output of over 20 kWp to be reached.

### Product features

- Hybrid controller
- State of charge determination with Steca AtonIC (SOC)
- Automatic detection of voltage
- PWM control
- Multistage charging technology
- Load disconnection depending on SOC
- Automatic load reconnection
- Temperature compensation
- Common positive grounding or negative grounding on one terminal
- Integrated data logger
- Night light function with Steca PA 15
- Integrated self test
- Monthly maintenance charge
- Integrated energy meter

### Electronic protection functions

- Overcharge protection
- Deep discharge protection
- Reverse polarity protection of load, module and battery
- Reverse polarity protection by internal fuse
- Automatic electronic fuse
- Short circuit protection of load and module
- Overvoltage protection at module input
- Open circuit protection without battery
- Reverse current protection at night
- Overtemperature and overload protection
- Battery overvoltage shutdown

### Displays

- Text LCD display
- for operating parameters, fault messages, self test

### Operation

- Simple menu-driven operation
- Programming by buttons
- Manual load switch

### Interfaces

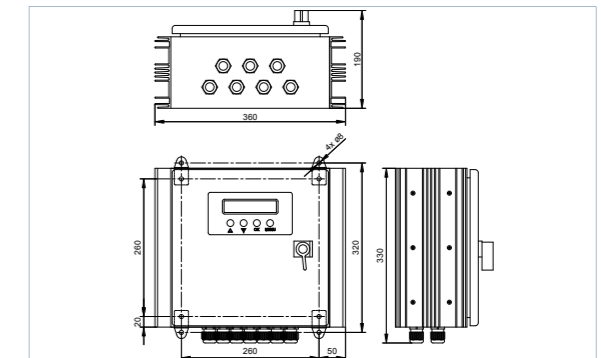
- RJ45 interface

### Options

- External temperature sensor (included)
- Alarm contact (page 51)

### Certificates

- Approved by the World Bank for Nepal
- Fit for use in tropical areas (DIN IEC 68 part 2-30)
- Compliant with European Standards (CE)
- Made in Germany
- Developed in Germany
- Manufactured according to ISO 9001 and ISO 14001



Steca Power Tarom 2140, Power Tarom 4110, Power Tarom 4140

	2070	2140	4055	4110	4140
<b>Characterisation of the operating performance</b>					
System voltage	12 V (24 V)		48 V		
Own consumption	14 mA				
<b>DC input side</b>					
Open circuit voltage solar module	< 50 V		< 100 V		
Module current	70 A	140 A	55 A	110 A	140 A
<b>DC output side</b>					
Load current	70 A	70 A	55 A	55 A	70 A
End of charge voltage	13.7 V (27.4 V)		54.8 V		
Boost charge voltage	14.4 V (28.8 V)		57.6 V		
Equalisation charge	14.7 V (29.4 V)		58.8 V		
Reconnection voltage (SOC / LVR)	> 50 % / 12.6 V (25.2 V)		> 50 % / 50.4 V		
Deep discharge protection (SOC / LVD)	< 30 % / 11.1 V (22.2 V)		< 30 % / 44.4 V		
<b>Operating conditions</b>					
Ambient temperature	-10 °C ... +60 °C				
<b>Fitting and construction</b>					
Terminal (fine / single wire)	50 mm <sup>2</sup> - AWG 1	95 mm <sup>2</sup> - AWG 000	50 mm <sup>2</sup> - AWG 1	70 mm <sup>2</sup> - AWG 00	95 mm <sup>2</sup> - AWG 000
Degree of protection	IP 65				
Dimensions (X x Y x Z)	330 x 330 x 190 mm	360 x 330 x 190 mm	330 x 330 x 190 mm	360 x 330 x 190 mm	
Weight	10 kg				

Technical data at 25 °C / 77 °F



**Steca PA Tarcom**  
Data logger  
(page 52)



**Steca PA HS200**  
Shunt  
(page 53)



**Steca PA 15**  
Remote control  
(page 54)



## Steca PL 2085

### Solar charging point

The Steca PL 2085 solar charging point is a highly intelligent maximum power point tracker which is able to charge eight batteries with different states of charge at the same time.

On the input side, the Steca PL 2085 is fed by a 24 V module array of up to 800 Wp. Every charge channel operates fully independently; it is also possible to connect different batteries with various states of charge. The battery which is connected first is also the first to be charged. The display can show the system data for each individual battery. There is a maximum of 5 A available per charging channel, and a maximum of four channels can be connected in parallel at once, so that two batteries with 20 A each can also be charged. Thanks to the reverse polarity protection, electronic fuse and automatic detection of a faulty battery, the device is maintenance-free and user-friendly.

#### Product features

- Maximum Power Point Tracker (MPP tracker)
- Charger for 8 batteries
- Up to 4 channels can be connected in parallel
- Special maintenance charge
- Integrated energy meter for every channel
- Temperature compensation

#### Electronic protection functions

- Overcharge protection
- Reverse polarity protection
- Automatic electronic fuse
- Short circuit protection
- Overvoltage protection at module input
- Open circuit protection without battery
- Reverse current protection at night
- Overtemperature and overload protection

#### Displays

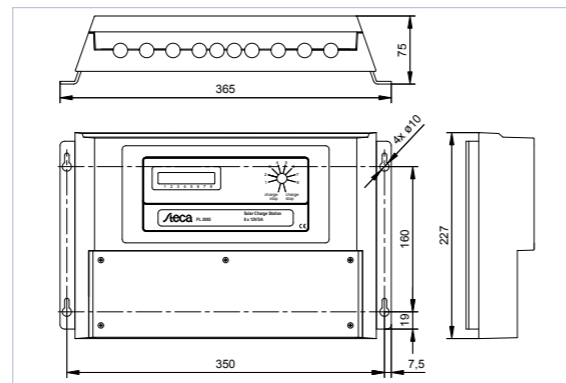
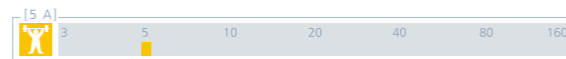
- Every single battery station
- Text LCD display
  - for voltage, current, charged capacity, state of charge
  - for operating parameters, fault messages, self test

#### Operation

- Battery selection and charge stop via rotary switch

#### Certificates

- Compliant with European Standards (CE)
- Made in Germany
- Developed in Germany
- Manufactured according to ISO 9001 and ISO 14001



PL 2085	
<b>Characterisation of the operating performance</b>	
System voltage	12 V
<b>DC input side</b>	
Recommended module output for 24 V system	200 Wp ... 1,000 Wp
<b>DC output side</b>	
End of charge voltage	13.8 V
Boost charge voltage	14.7 V
Number of charging points	8
Permitted current per connection	5 A
<b>Operating conditions</b>	
Ambient temperature	-20 °C ... +50 °C
<b>Fitting and construction</b>	
Terminal (fine / single wire)	16 mm <sup>2</sup> / 25 mm <sup>2</sup> - AWG 6 / 4
Degree of protection	IP 54
Dimensions (X x Y x Z)	365 x 227 x 75 mm
Weight	2 kg

Technical data at 25 °C / 77 °F



## Steca Solarix PI

### 550, 550-L60, 1100, 1100-L60

In developing the Solarix PI sine wave inverter, Steca has brought about some innovations which are unprecedented in this form. These are, above all, parallel connection, the novel operating concept which uses a single rotary switch, direct communication in order to calculate the state of charge (SOC) with Steca Tarom and Steca Power Tarom, and the electronic fuse. Furthermore, our many years of experience have come into play for deploying these inverters specifically in photo-voltaic systems. This comes through, for instance, in the way that a most diverse range of appliances is provided with a low operating consumption and a stable energy supply.

#### Product features

- True sine wave voltage
- Can be connected to the Steca Tarom with a Steca PAx4 parallel switch box
- Excellent overload capabilities
- Optimal battery protection
- Automatic load detection
- Parallel connectable
- Best reliability
- Protective insulation according to protection class II
- Control by digital signal processor (DSP)

#### Electronic protection functions

- Deep discharge protection
- Battery overvoltage shutdown
- Overtemperature and overload protection
- Short circuit protection
- Reverse polarity protection
- Automatic electronic fuse

#### Displays

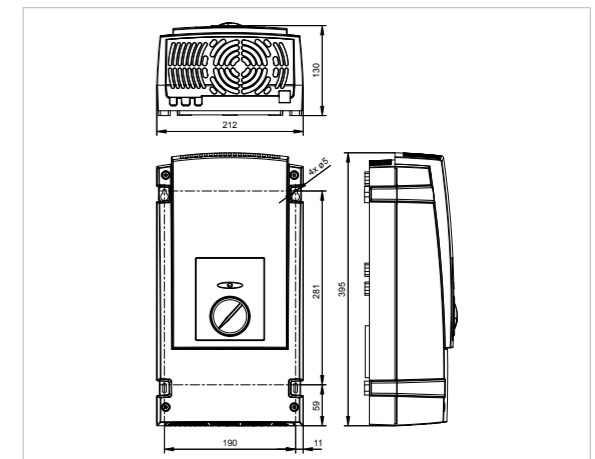
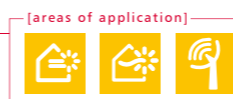
- Multi-coloured LED shows operating states

#### Operation

- Main switch
- Adjustable load detection

#### Certificates

- Compliant with European Standards (CE)
- Made in Germany
- Developed in Germany
- Manufactured according to ISO 9001 and ISO 14001



	550	550-L60	1100	1100-L60
<b>Characterisation of the operating performance</b>				
System voltage	12 V		24 V	
Continuous power	500 VA		1,000 VA	
Power 30 min.	550 VA		1,110 VA	
Power 5 sec.	1,500 VA		3,000 VA	
Power asymmetric	350 VA		500 VA	
Max. efficiency	93 %		94 %	
Own consumption standby / ON	0.5 W / 6 W		0.7 W / 10 W	
<b>DC input side</b>				
Battery voltage	10.5 V ... 16 V		21 V ... 32 V	
Reconnection voltage (LVR)	12.5 V		25 V	
Deep discharge protection (LVD)	current driven or by Tarom			
<b>AC output side</b>				
Output voltage	230 V AC +/-10 %	115 V AC +/-10 %	230 V AC +/-10 %	115 V AC +/-10 %
Output frequency	50 Hz	60 Hz	50 Hz	60 Hz
Load detection (standby)	adjustable: 2 W ... 50 W			
<b>Safety</b>				
Protection class	II (double insulated)			
Electrical protection	reverse polarity battery, reverse polarity AC, over voltage, over current, over temperature			
<b>Operating conditions</b>				
Ambient temperature	-20 °C ... +50 °C			
<b>Fitting and construction</b>				
Cable length battery / AC	1.5 m / 1.5 m			
Cable cross-section battery / AC	16 mm <sup>2</sup> / 1.5 mm <sup>2</sup>			
Degree of protection	IP 20			
Dimensions (X x Y x Z)	212 x 395 x 130 mm			
Weight	6.6 kg		9 kg	

Technical data at 25 °C / 77 °F