Steca Solarix MPPT
1010, 2010

Steca Solarix MPPT 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 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 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
- Automatic load reconnection
- Temperature compensation
- Positive earthing of one or negative earthing of several terminals possible
- Monthly equalisation charge

**Electronic protection functions**
- Overcharge protection
- Deep discharge protection
- Reverse polarity protection of module, load 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

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

**Options**
- Evening or 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

**Accessories**
- Steca PA RC100
- External temperature sensor Steca PA TS10

### Technical data at 25 °C / 77 °F

<table>
<thead>
<tr>
<th>Characterisation of the operating performance</th>
<th>MPPT 1010</th>
<th>MPPT 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>System voltage</td>
<td>12 V (24 V)</td>
<td>12 V (24 V)</td>
</tr>
<tr>
<td>Nominal power</td>
<td>125 W (250 W)</td>
<td>250 W (500 W)</td>
</tr>
<tr>
<td>Max. DC-DC efficiency</td>
<td>98.3 % (Ubatt=24 V; Un=30 V; P=0.6*Pnom)</td>
<td>98.3 % (Ubatt=24 V; Un=30 V; P=0.6*Pnom)</td>
</tr>
<tr>
<td>European efficiency</td>
<td>94.7 % (Ubatt=12 V; Un=30 V)</td>
<td>96.7 % (Ubatt=12 V; Un=30 V)</td>
</tr>
<tr>
<td>European efficiency (weighted across all Ubatt and Un)</td>
<td>95.2 %</td>
<td>95.2 %</td>
</tr>
<tr>
<td>Static MPP efficiency</td>
<td>99.9 % (DIN EN 50530)</td>
<td>99.9 % (DIN EN 50530)</td>
</tr>
<tr>
<td>Dynamic MPP efficiency</td>
<td>97.7 % (DIN EN 50530)</td>
<td>97.7 % (DIN EN 50530)</td>
</tr>
<tr>
<td>Weighted REW (Realistic Equally Weighted efficiency)</td>
<td>92.8 %</td>
<td>92.8 %</td>
</tr>
<tr>
<td>Own consumption</td>
<td>10 mA</td>
<td></td>
</tr>
</tbody>
</table>

#### DC input side
- MPP voltage
  - 15 V (30 V < Umodule < 75 V)
  - 15 V (30 V < Umodule < 100 V)
- Open circuit voltage solar module (at minimum operating temperature)
  - 17 V ... 75 V (34 V ... 75 V)
  - 17 V ... 100 V (34 V ... 100 V)
- Module current
  - 9 A
  - 18 A

#### DC output side
- Load current
  - 10 A
- Reconnection voltage (LVR)
  - 12.5 V (25 V)
- Deep discharge protection (LVD)
  - 11.5 V (23 V)

#### Battery side
- Charge current
  - 10 A
  - 20 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)
- Set battery type
  - liquid

#### Operating conditions
- Ambient temperature
  - -25 °C ... +40 °C

#### Fitting and construction
- Terminal (fine / single wire)
  - 16 mm² / 25 mm² / AWG 6 / 4
- Degree of protection
  - IP 32
- Dimensions (X x Y x Z)
  - 187 x 153 x 68 mm
- Weight
  - 900 g

- Technical data at 25 °C / 77 °F
- adjustable via Steca PA RC100: reconnection voltage, deep discharge protection, end of
charge voltage, boost charge voltage, equalisation charge, battery types.

- Inverters must not be connected to the load output.

**CAUTION:** If an open circuit voltage of more than 75 V or 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 75 V or 100 V over the entire working temperature range. When using solar modules with a maximum open circuit voltage of between 60 and 100 V (over the entire temperature range), all installation steps must be carried in accordance with protection class II.