

Solar Charge Controllers

Solar charge controllers or regulators are recommended to avoid battery damage from overcharging or deep discharge. The Steca range of regulators are designed for simplicity of installation and can be used with gel, AGM (absorbed glass matt), sealed and non-sealed lead acid batteries. They should be protected from the weather and located within 1.5m run of cable from the battery bank.

Q. Do I need to fit a regulator?

A. Yes, we recommend a regulator if working over our recommended minimum ratio of 10W of solar panel to 100Ah battery capacity.

Q. How do I calculate the Amp rating of the regulator needed?

A. Employ the physics equation of Amps x Volts = Watts $A \times V = W$. Therefore an 80W solar panel charging a 12V battery should be regulated using a solar regulator rated 6.7A or more.

Regulator Specifications

Solsum and PR Range Product Features:

- Diode protection to prevent reverse current from the solar panel in darkness
- Efficient PWM regulation (pulse width modulation)
- LED System Indicators
- Low voltage disconnect feature to maximum load current rating of the model
- Temperature compensation for accurate voltage sensing
- Reverse polarity protection
- Automatic system voltage detection for 12V or 24V systems

PR Range and Tarom incorporate a microprocessor giving the following additional features:

- Digital display of battery volts or state of charge
- Digital display of charge and load currents
- Digital display of accumulated ampere hours charged and drawn



| Model | Part No | Maximum Solar Panel Rating | | Dimensions (mm) | Weight (grams) |
|------------|----------|----------------------------|--------------|-----------------|----------------|
| | | 12V | 24V | | |
| Solsum 6.6 | CA-11/32 | 72W or 6A | 146W or 6A | 85*98*34 | 110 |
| Solsum 8.8 | CA-11/33 | 96W or 8A | 192W or 8A | 85*98*34 | 110 |
| PR1010 | CA-11/37 | 120w or 10A | 240w or 10a | 187*44*96 | 350 |
| PR1515 | CA-11/34 | 180W or 15A | 360W or 15A | 187*44*96 | 350 |
| PR2020 | CA-AA/35 | 240W or 20A | 480W or 20W | 187*44*96 | 350 |
| PR2030 | PR-11/36 | 360W or 30A | 720W or 30A | 187*44*96 | 350 |
| TAROM 45 | CA-11/31 | 540W or 45A | 1080W or 45A | 188*128*49 | 400 |

Junction Box Mounted Regulator

The SRX6/12 solar regulator is designed to be mounted in the junction box of the BP Solar framed solar panels up to 65W thereby giving a regulated output directly from the solar panel. Ideal for professional applications where only simple voltage regulation is required. Solarstate SRX6/12 Part No: CA-11/09

Solar Panel Blocking Diodes

A blocking diode is fitted to ensure the correct flow of current and should be fitted when either no regulator is used or more than one solar panel is connected in parallel. The diode fits directly into the junction box of framed solar panels and via a connector block (supplied) for Lite type solar panels.

Schottky Diode 8A Part No: 913-012 Schottky Diode Kit 5A Part No: CA-11/01.

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