



SunWize Steca Controller

## SunWize

### Steca Controller

The SunWize–Steca controller uses an advanced control algorithm that sets new standards for solar charge technology. The state-of-charge algorithm combines battery temperature, battery voltage, and load discharge rate to determine the true battery state of charge (SOC). The controller’s memory of discharge patterns enables the controller to know the degree of battery sulfation. This allows even greater accuracy towards determining true battery SOC. The self-learning controller automatically adjusts for the capacity and age of the battery. The resultant battery SOC is displayed within a 10% accuracy range. The patented hybrid regulator design combines both series and shunt technology for nominal power consumption. Maximum wire gauge for terminal: 4 AWG.

The Tarom features adjustable set points that are stored in the controller's memory. Available Tarom options are an external data logger, external shunts for measuring current and a remote temperature sensor. Other options include control modules that load shed or PV shed based on the battery SOC that is communicated with the controller over a DC data bus. Two-year warranty.

#### Options:

- Audible buzzer fault condition warning alarm (not available with the LCD display)
- Opto-isolated fault condition warning alarm that can be connected to any analog input monitoring device (not available with the LCD display)

#### Other Features Include:

- TUV and UL recognized component
- Automatically adjusts for 12 V or 24 V system
- Automatic battery equalization can be disabled when using gel or AGM type lead-acid batteries
- Protection against over temperature, battery overvoltage, module overcurrent, and load overcurrent
- Low voltage disconnect and a low voltage warning
- Tricolor information LED and tricolor “SOC” LED annunciating controller status, errors, and battery SOC
- IP 22 (NEMA 12) protection
- Operating temperature range is -25° C to +50° C
- Manual setting to override the SOC algorithm to allow SOC to be determined by temperature compensated voltage levels. This is useful when other loads are connected directly to the battery.

Model	Vdc	PV Amps	Load Amps	Dimensions in.	Weight lbs.	MSRP
Alpha	12/24	8	8	7.4 x 4 x 1.93	1	\$82.00
Gamma	12/24	12	12	7.4 x 4 x 1.93	1	\$99.00
Sigma	12/24	20	20	7.4 x 4 x 1.93	1	\$119.00
Omega	12/24	30	30	7.4 x 4 x 1.93	1	\$150.00
Tarom 235	12/24	35	35	7.4 x 4 x 1.93	1	\$335.00
Tarom 245	12/24	45	45	7.4 x 4 x 1.93	1	\$385.00
Tarom 430	48	30	30	7.4 x 4 x 1.93	1	\$445.00
PR1010*	12/24	10	10	7.4 x 4 x 1.93	1	\$136.00
PR1515*	12/24	15	15	7.4 x 4 x 1.93	1	\$160.00
PR2020*	12/24	20	20	7.4 x 4 x 1.93	1	\$187.00
PR3030*	12/24	30	30	7.4 x 4 x 1.93	1	\$219.00

\* LCD Display standard on PR Series regulators.

### SunWize-Steca and Solsum Controller Operational Settings

Set point values based on:	SunWize-Steca		SunWize-Steca Solsum
	SOC algorithm	Battery Voltage	Battery Voltage
Load Disconnect Prewarning	SOC < 40%	11.7	NONE
Low Voltage Disconnect (LVD)	SOC < 30%	11.1	11.1
Reconnection of Load after an LVD	SOC > 50%	12.6	12.6
Equalization Charge* of 14.7 V occurs after	SOC < 40%	11.7	12.4
Cycle Charge of 14.4 V occurs after	SOC < 70%	12.4	12.4
Final Charge Voltage	13.7	13.7	13.7
Temperature Compensation	-4mV/K/Cell	-4mV/K/Cell	-4mV/K/Cell

**Voltage Values are doubled for 24 V systems**

\* Not applicable to sealed gel or AGM batteries, equalization charge of 14.4 volts for Solsum controllers