



# Charge Controllers

## Steca



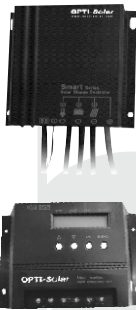
Solarix PRS 2020, 3030 and PR 3030 PWM type charge controllers offer high performance and simple operation as well as many protection features. They offer automatic detection for either 12VDC or 24VDC configuration and a multi coloured LED or LCD display indicates operating status, state of charge and faults.



Tarom 4545-48 PWM charge controller is designed for use with inverter AC systems. The controller combine basic solar charger functions with 45A input and is available for 12V, 24V and 48V systems. A text type LCD display is provided that indicates operating parameters and fault messages.

All controllers provide various electronic protection functions including overcharge, over voltage, over temperature and over load with an automatic electronic fuse.

## Opti



Opti SC-SM smart PWM charge controllers are high specification simple to use units for general solar charging control applications, particularly for solar lighting control. Features include temperature sensing for compensation of charge voltage, battery type and protection level selection, intelligent voltage regulation that selects three stages of charging and a unique adjustable lamp dimming function. The controller is fitted with LED's that display various operating and fault conditions and also protects against current, voltage and charge levels outside set limits.

Opti SC MAX charge controllers are advanced technology units that feature automatic system voltage recognition, various battery working mode and protection options, charge intensity selection, electronic overload protection and an LCD display.

Opti SC MPPT charge controllers are advanced design MPPT (Maximum Power Point Tracker) type electronic units that are particularly designed for operation with inverter systems. MPPT technology optimally matches power between the PV solar array and the battery bank and typically giving a 25-30% power gain over PWM regulation. All units are provided with an LCD display that indicates input and output voltage and current, charge mode, battery charge status and energy outputs.

## Victron



Blue Solar MPPT Charge Controllers Utilizes the Ultra-fast Maximum Power Point Tracking (MPPT) especially in case of a clouded sky, when light intensity is changing continuously, to improve energy harvest by up to 30% compared to PWM charge controllers and by up to 10% compared to slower MPPT controllers. If partial shading occurs, two or more maximum power points may be present on the power voltage curve. Conventional MPPTs tend to lock to a local MPP, which may not be the optimum MPP. The innovative SmartSolar algorithm will always maximize energy harvest by locking to the optimum MPP. Features include;

- Battery voltage 12 / 24 / 48 V
- Rated charge current 35A, 60A, 85A and 100A
- Automatic Battery Voltage recognition
- Maximum efficiency 98 %

## TECHNICAL SPECIFICATIONS

	STECA				OPTI						VICTRON				
	PRS 2020	PRS 3030	PR 3030	Tarom 4545-48	SC 10SM	SC 20SM	SC 50MAX	SC 60MAX	SC 600 MPPT	SC 3kW MPPT	MPPT 150/35	MPPT 150/60	MPPT 250/85	MPPT 250/100	
<b>Max. Module Current (A)</b>	20	30	30	45	10	20	50	60	25	45	35	60	85	100	
<b>Nominal Battery Voltage(VDC)</b>	12/24		12/24/48	12/24						12/24/48 Auto Select					
<b>Max. Input Voltage (VDC)</b>	12/24		12/24/48	12/24						66	145	150		250	
<b>Self Consumption (V:mA)</b>	4	13	30	30	15			14		12:20/24:15/48:10		10	35		
<b>Max. PV Array Power (Watts)</b>	900		2400	120/240	240/480	600/1200	720/1440	600	800/1600/3200	12:500/24:1000/48:2000		12:860/24:1720/48:3440	12:1200/24:2400/48:4900	12:1450/24:2900/48:5800	
<b>Low Voltage Disconnect (LVD)</b>	11.2-11.6V(22.4-23.2V)		46.8V	10.8-11.9V(21.6-23.8V)			22.4V		11.5/22.4/44.4		11.5/22.4/44.4	11.5/22.4/44.5	11.5/22.4/44.6	11.5/22.4/44.7	
<b>Reconnection Voltage (LVR)</b>	12.4V-12.7(24.8-25.4V)		50V	12-13.2V(24-26.4V)			24.6V		12.4/24.6/50.4		12.4/24.6/50.4	12.4/22.6/50.5	12.4/24.6/50.6	12.4/24.6/50.7	
<b>Display</b>	LED										LCD				
<b>IP Rating</b>	IP 32		IP 31	IP 67		IP 32		IP 43	IP 31		IP 43				
<b>Dimensions (mm)</b>	187x96x45		218x134x65	85x70x20	85x85x20	127x164x47		220x170x57.5	315x65x128		310x186x70	185x250x95	216x295x103		
<b>Weight (kgs)</b>	0.35		0.8	0.2	0.21	0.69		1.85	4.5		1.3	3	4.5	4.5	