

PSR solar charge controllers



PSR4 This small solar charge controller is ideally suited for low-power applications. It optimally charges a 12 / 24V battery (jumper-selectable) with **4 Amps**, without overcharging it.

PSR4A The advance version of PSR4 is designed to control a DC load output as well. The load is automatically disconnected when the battery voltage level reaches a pre-set value (Deep Discharge Protection) and automatically reconnected when it was recharged sufficiently.

PSR8 Possesses all properties of the PSR4A with an **8 Amps** battery-charging capacity, plus: Temperature compensated charging enables to control the Gas-formation within the battery and ensures most appropriate charging characteristics at various temperatures. The 12 /24V jumper was replaced by a selector switch which gives handy setting opportunities on the field.

PSR20 The biggest within the PSR regulator range. The **20 Amps** charging power makes it more powerful than the PSR8, designed and suited for not only domestic but also for industrial applications.

The use of lead-acid batteries for storing solar energy in photovoltaic solar systems is the most widespread. These batteries must be protected against overcharging and deep-discharging. The PSR charger units satisfy both requirements. The 12 / 24 V voltage selection switch enables the charger units to operate with both kinds of solar systems. Longer operation of lead-acid batteries without gas-control can lead to the build-up of damaging acid formation. The PSR8 and PSR20 chargers regulate the temperature-dependent gas disengagement inside the battery by utilizing their temperature sensors.

Specifications

Models	PSR4	PSR4A	PSR8	PSR20
Nominal voltage	12 / 24 V (jumper)	12 / 24 V (jumper)	12 / 24 V (switch)	12 / 24 V (switch)
Charging current (solar cells)	4 A	4 A	8 A	20 A
Max. load	4 A	4 A	8 A	20 A
Max. power consumption	0,6 mA	1,5 mA	3 mA	4 mA
Temperature sensor	-	-	Built-in	Cable-connected
Final charging voltage limit				
Normal	13,8 V / 27,6 V	13,8 V / 27,6 V	13,7 / 27,4 V	13,7 / 27,4 V
Gas-control deactivated	-	-	14,1 / 28,2 V	14,1 / 28,2 V
Temp. compensation	-	-	- 4 mA/K/cell	- 4 mA/K/cell
Deep discharge protection				
Load disconnection	-	10,5 V / 21 V	11,1 / 22,2 V	11,1 / 22,2 V
Load reconnection	-	12,5 V / 25 V	12,6 / 25,2 V	12,6 / 25,2 V
Gas regulation				
Gas-control activation voltage	-	-	12,4 / 24,8 V	12,4 / 24,8 V
Final - gas-control voltage limit	-	-	14,5 / 29 V	14,5 / 29 V
Temperature compensation	-	-	-3 mA/K/cell	-3 mA/K/cell
Built-in fuse	-	-	10A	20A
Indication for "battery full" and "battery charging"	2 LEDs	2 LEDs	2 LEDs	2 LEDs
Temperature range	-10°C up to +50°C	-10°C up to +50°C	-25 °C - +50 °C	-25 °C - +50 °C
Dimensions (L × W × H)	68 × 57 × 28 mm	68 × 57 × 28 mm	95 × 95 × 35 mm	190 × 100 × 85 mm
Weight approx.	150 g	150 g	240 g	300 g
EMC Directive (89/336/EEC)	EN50081-1:01.92; EN50082-1:01.92			

Subject to alteration without notice