

# PSR solar charge controller with light sensor and timer



This new member of the PSR solar charge controller family has been specifically developed for intelligent applications where switching on and off the DC loads is expected to be done automatically, with the help of external light. Such fully automatic operations include solar billboard illuminations, solar streetlights, solar garden lights, solar weather stations, marine indication lights, etc. With the help of the PSR10-LS the connected loads are switched on upon dusk and continue operating for an adjustable period of time. In order to save the battery's lifetime, the DC loads will be disconnected when the battery's voltage reaches the DDP level, no matter if the timer is still running. Also, the PSR10-LS solar charge controller can be used as a normal solar regulator without light control, if the light sensor is removed.

## Description

Including an additional light sensor, the PSR10-LS is capable of detecting the external light intensity and connect / disconnect the 12V or 24V DC load when the light intensity is decreased / increased to a certain level.

**Setting light sensitivity level:** As the light sensitivity level is adjustable by a trimmer, it is possible to select the most appropriate time for the load to switch on.

**Setting lighting time:** Another adjustable feature which is offered by the PSR10-LS is the adjustable illumination time which can be set between approx. 0,5 ... 5,5 hours. After the set lighting time is over, the DC load will be switched off automatically.

**Built-in or external light sensor:** Also the appropriate light sensor is delivered with each PSR10-LS unit, connected to the local screw-terminal. With the help of a few metres of thin cable it is possible to put the light sensor in an open area when the controller itself is mounted in a closed place. This is particularly useful when the solar charger must be protected from the outside weather (rain, etc.) but also must be controlled by light.

## Specifications

Models	PSR10-LS
Nominal voltage	12 / 24 V (jumper-selectable)
Charging current (solar cells)	10 A
Max. load	10 A
Max. power consumption	3 mA
Temperature sensor	Built-in
<b>Final charging voltage limit</b>	
Normal	13,8 / 27,6 V
<b>Deep discharge protection (DDP)</b>	
Load disconnection	10,5 / 21 V
Load reconnection	12,5 / 25 V
<b>Light control</b>	
Light sensor type	Photo resistor
Light sensitivity level	Adjustable by a trimmer
<b>Timer</b>	
Lighting time	Adjustable between 0,5 ... 5,5 hours by a trimmer
Built-in fuse	10A
Indication for "battery full" and "battery charging"	2 LEDs
Temperature range	-25 °C - +50 °C
Dimensions (L × W × H)	95 × 95 × 35 mm
Weight approx.	240 g
EMC Directive (89/336/EEC)	EN50081-1:01.92; EN50082-1:01.92