Solar LED Lighting Controller

Application:

Control of solar-powered road lighting. Control of crosswalk lighting, including the management of warning lamps and radio communication with a second controller.



- High-voltage LED lamp control with brightness regulation.
- Three output channels for connecting warning lamps. \Rightarrow
- Seamless cooperation with any motion detector.
- Compatibility with 12V PV panels of any power rating.
- \Rightarrow Optional compatibility with 24V PV panels.
- \Rightarrow Battery charging system using MPPT technology.
- Battery protection system against over-discharge.
- Four scenarios for controlling the intensity of luminaire lighting. \Rightarrow
- Multi-channel long-range LORA® radio communication system \Rightarrow ensuring reliable connectivity between controllers.
- **Intuitive operation and programming of the controller.**
- Remote management of controllers' operation via a computer application.
- Local reading and modification of parameters via an LCD display and buttons.
- Available statistics on energy usage and battery status.

Detailed technical specifications on the back.



55-080 Smolec

Technical specifications of the solar LED lighting controller

Technical specifications:

Basic PV voltage range: 0 - 19V. Optional PV voltage range: 0 - 38V.

Battery voltage: 12 - 14.5V.
Max battery charging current: 10A.

Charging control: MPPT.
Max conversion efficiency: 98%.

Self-consumption: <0.5W. Battery capacity: Unlimited.

Number of detection inputs: 2 (normal and inverted).

Detection input voltage: 0 - 15V. Detection of detector failures: YES. PV converter thermal protection: YES. Battery status monitoring: YES.

Battery protection: YES. Fire protection: YES.

Battery voltage statistics: YES - for 50 hours. Energy flow statistics: YES - for 60 days. Current PV panel status report: YES. Current battery status report: YES. Current energy balance report: YES.

Warning light outputs: 3.

Warning light output voltage: 12 - 15V. Max warning light output current: 3A. Pulsing frequency: Programmable. LED luminaire voltage: <90V.

LED luminaire brightness control: YES. Brightness adjustment range: 10 - 100%.

Max luminaire current: 500mA.

Number of lighting control scenarios: 4. Automatic dusk and dawn detection: YES.

Energy-saving mode: YES.

Emergency light shutdown to protect the battery:YES.

Brightness reduction after midnight: Possible based on an algorithm.

Radio data transmission: YES. Range in open terrain: 1km.

Max number of controllers in one group: 255. Number of unique group addresses: 255.

Data transmission technology: LORA - encrypted.
Management software: YES (WIN-XP, WIN7, WIN10).
Remote access to the controller: via USB-LORA modem.

Measurement of received radio signal level: YES.





Przedsiębiorstwo Elektryczne CYWIT Witold Cybertowicz ul. Starolubańska 10 59-800 Lubań

email: kontakt@pecywit.pl





