ллл **СБ-N-LED (Ю-20 А)**

Solar Charge Controller w/ Integrated LED Driver





Product Introduction

The CIS-N-LED is a 3-in-1 solution that increases lifetime, reliability, efficiency and cost effectiveness. It is the perfect charge controller for solar lighting applications such as streetlights or bus shelters, and its motion sensor interface capabilities regulate LED brightness to conserve energy.

To further conserve energy and extend the system's lifetime, the CIS-N-LED has two low voltage disconnect levels. The levels can be programmed using one of Phocos' handheld remote control accessories; the CIS-CU or the MXI-IR and our free CISCOM PC software.

Product Features

- Combines 3 functions in one: charge controller + flexible timer + LED driver
- Developed especially for rough environments, solar LED lamps, and solar LED streetlights
- Flexible dimming functions
- Input for motion detector (PIR)
- Small size: fits everywhere
- LiFePO4 available through CISCOM software

LED Driver Data

- True color PWM dimming
- Fully protected by the encapsulated case, which increases lifetime and reliability and reduces costs
- Auto-protection function: two low-voltage disconnects extend system operation time and reliability
- Infrared-programmable load timing feature + dimming is ideal for lighting systems
- IP68 Ingress Protection

Туре	1050 mA	1400 mA	2800 mA	
Output Voltage	15-49 V for 12 V system (5-15 LEDs in series), 30-49 V for 24 V system (10-15 LEDs in series)			
Nominal Output Current Per String	1050 mA	1400 mA	2800 mA	
Max. Load Power	45 W	60 W	60 W (12 V) / 120 W(24 V)	
Dimming Level	0 – 100 % (1.7 % steps)			
PIR-Input	4 - 30 V with respect to battery negative, >= 0.7 mA; limited protection up to 50 V			

Optional Accessories

MXI-IR

CIS-CU

- Infrared to USB programming accessory and interface to CISCOM software
- Infrared remote control programming accessory

Technical Drawing



Technical Data

Туре	CIS-N-LED- 1050	CIS-N-LED- 1400	CIS-N-LED- 2800	
System Voltage	12 / 24 V auto recognition			
Max. Charge Current	20 A (30 A, ≤ 50 °C*)			
Float Charge	13.8 / 27.6 V (25 °C)			
Main Charge	14.4 / 28.8 V (25 °C), 0.5 h daily			
Boost Charge	14.4 / 28.8 V (25 °C), 2 h activation: battery voltage < 12.3/24.6 V			
Equalization Charge	14.8 / 29.6 V (25 °C), 2 h; activation: battery voltage < 12.1/24.2 V (at east every 30 days)			
Deep-Discharge Protection	11.00-12.02 / 22.00-24.04 V (by SOC) 11.0-11.9 / 22.0-23.8 V (by voltage)			
Reconnect Level	12.8 / 25.6 V			
Overvoltage Protection	15.5 / 31.0 V			
Undervoltage Protection	10.5 / 21.0 V			
Max. PV Panel Voltage	30 / 50 V			
Temperature Compensation	-25 mV/K (12 V); -50 mV/K (24 V)			
Idle Self-Consumption	5-8 mA			
Grounding	Common Negative			
Ambient Temperature	-40 to +60 °C			
Max. Altitude	4,000 m above sea level			
Battery Type	Lead acid (gel, AGM, flooded), LiFePO4 adjustable			
Wire Cross Section	2.5 mm ² (AWG 13)			
Dimensions (WxHxD)	92 x 99 x 22 mm / 3.6 x 4 x 1 in			
Weight	0.25 kg / 0.55 lbs			
Ingress Protection	IP68 (1.5 m, 72 h)			
Certificates	CE compliant, RoHS compliant			
Warranty	5 years			

* Without simultaneous LED output current at a maximum ambient temperature of 50 °C. Please note: The CIS-N-LED features an integrated over-temperature protection that will reduce the average charge current in case of too high temperatures.