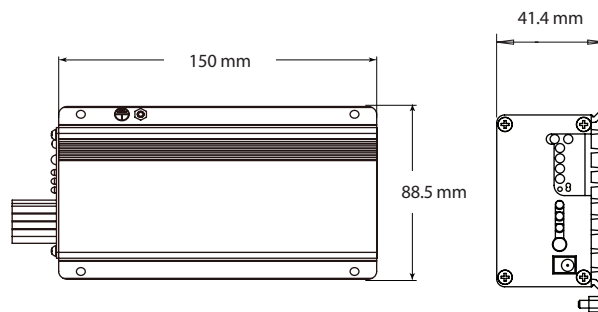




### Technical Drawing



### Product Introduction

The CIS-MPPT-LED is a multi-functional solar charge controller with built-in LED boost driver for solar outdoor lighting systems. Equipped with a widely-adjustable automatic light timer that uses solar input voltage to determine day and night, the CIS-MPPT-LED adjusts to seasonal changes. In addition, the built-in LED driver features timed and low-voltage dimming of LED strings.

Like all CIS family products, CIS-MPPT-LED has been designed for the harshest industrial environments and features a rugged, fully potted (IP68) enclosure that prevents damage from dust, insect and water ingress. The infrared communication feature allows for full-control of light timer settings and LVD customization via remote control accessory (CIS-CU) and full adjustment of the battery charge regime and access to 2 years of system data via USB adaptor (MXI-IR) and our free PC software (CISCOM).

### Product Features

- Three functions in one: charge controller + light timer + LED driver
- Works in 12 or 24 V systems
- Up to 30% additional power yield compared to conventional PWM controllers
- IP68 ingress protection
- Input for motion detector (PIR)
- Infrared-programmable load timing feature with dimming, which is ideal for lighting systems
- 2 year datalogging memory
- Compatible with 60 cell PV modules

### Driver Data

Type	CIS-MPPT-LED-HC
Output Voltage	15-69 V (12 V), 30-69 V (24 V)
Nominal Output Current per String	1,050 - 3,500 mA
Max load power	100 W/200 W
Dimming level	0-100% (10% steps)
PIR-Input	4-30 V with respect to battery negative, $\geq 0.7$ mA; limited protection up to 50 V

### Technical Data

Type	CIS-MPPT-LED-HC
System Voltage	12/24 V auto recognition
Max Charge Current	15 A
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 least every 30 days)
Deep-Discharge Protection	11.0-12.0/22.0-24.0 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. Panel Input Voltage	50 Voc/85 Voc
Max. PV Power Input	250 W/500 W
Temperature Compensation	-25 mV/K (12 V); -50 mV/K (24 V)
Idle Self-Consumption	<10 mA
Grounding	Positive grounding
Ambient Temperature	-40 to +60 °C
Max Altitude	4,000m above sea level
Battery Type	Lead acid (gel, AGM, flooded)
Datalogger	2 years
Lead Wire Length	20 cm / 7.87 in
Lead Wire Cross Section	2.5 mm <sup>2</sup> (AWG 13)
Dimensions	88.5 x 150 x 41.4 mm / 3.5 x 6 x 1.6 in
Weight	0.78 kg / 1.72 lbs
Ingress Protection	IP68 (1.5m, 72 h)
Certificates	CE compliant, RoHS compliant
Warranty	5 years