

# phocos CIS-N-MPPT Series (15-30 A)

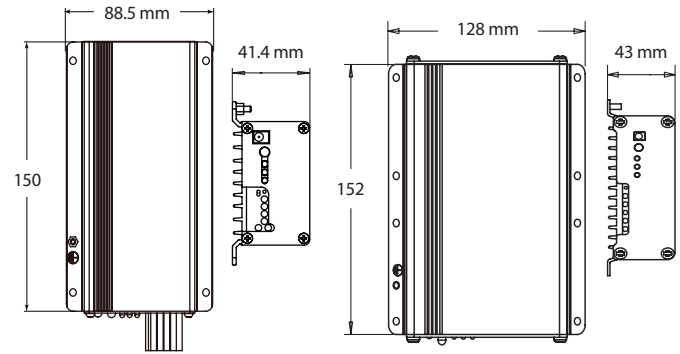
Industrial MPPT Charge Controllers w/ Lighting Control



phocos



## Technical Drawing



CIS-N-MPPT 85/15

CIS-N-MPPT 100/30

## Product Introduction

Off-Grid PV systems exposed to extreme weather/environmental conditions impose increased risk of damage to the power electronics. In order to ensure reliable battery protection under such conditions, Phocos developed the CIS-N-MPPT charge controller family to prevent corrosion.

The CIS-N-MPPT series include convenient and advanced lighting control, which allows the user to decide whether they want the automatic lighting control with LED dimming to be either time or low-voltage activated.

## Product Features

- Infrared-programmable load timing feature with dimming ideal for lighting systems
- 2 years of system performance data accessible via MXI-IR interface, PC software (CISCOM)
- Up to 98% power conversion efficiency
- Up to 4-stage charging increases battery lifespan
- I/V or I/U curve sweep algorithm increases performance when panels are shaded
- Fully encapsulated anodized aluminum housing design prevents damage from corrosion, insects and dust
- 20 cm connection wire
- Compatible with 60 cell solar modules
- Compatible with Lithium batteries (no BMS communication)
- IP68 Ingress Protection

## Optional Accessories

### CIS-CU

- Infrared remote control

### MXI-IR

- Infrared to USB programming accessory and interface to CISCOM software

## Technical Data

| Type                      | CIS-N-MPPT 85/15  | CIS-N-MPPT 100/30                  |
|---------------------------|---|------------------------------------|
| System Voltage            | 12 / 24 V auto recognition  |                                    |
| Max. Charge/Load Current  | 15 A  | 30 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), for 2 h activation: battery voltage < 12.3 / 24.6 V                          |                                    |
| Equalization Charge       | 14.8 / 29.6 V (25 °C), for 2 h activation: battery voltage < 12.1 / 24.2 V (at least every 30 days) |                                    |
| Deep-Discharge Protection | 11-11.9 V / 22-23.8 V (by SOC)<br>11-12.02 V / 22-24.04 V (by voltage)                              |                                    |
| Reconnect Level           | 12.8 V / 25.6 V   |                                    |
| Overvoltage Protection    | 15.5 V / 31.0 V   |                                    |
| Undervoltage Protection   | 10.5 V / 21.0 V   |                                    |
| Max. PV Panel Voltage     | 50 / 85 V   | 95 V                               |
| Max. Usable PV Power      | 225 W / 450 W   | 450 W / 900 W                      |
| Max. PV Array Power       | 250 Wp / 500 Wp   | 600 Wp / 1200 Wp                   |
| Temperature Compensation  | -25 mV/K (12 V); -50 mV/K (24 V)  |                                    |
| Idle Self-Consumption     | 15 mA / 8 mA  |                                    |
| Dimming Value             | 0-100 % (0-10 V output)   |                                    |
| Grounding                 | Common Negative   |                                    |
| Ambient Temperature       | -40 to +60 °C   |                                    |
| Battery Type              | Lead acid (gel, AGM, flooded), adjustable   |                                    |
| Datalogger                | 2 years   |                                    |
| Wire Cross Section        | 2.5 mm <sup>2</sup> (AWG 13)  | 3.3 mm <sup>2</sup> (AWG 12)       |
| Dimensions (WxHxD)        | 88.5 x 150 x 41.4 mm / 3.5 x 6 x 1.6 in   | 128 x 152 x 43 mm / 5.1 x 6 x 2 in |
| Weight                    | 0.78 kg / 1.72 lbs  | 1.45 kg / 2.54 lbs                 |
| Ingress Protection        | IP68 (1.5 m, 72 h)  |                                    |
| Certificates              | CE compliant, RoHS compliant  |                                    |
| Warranty                  | 5 years   |                                    |