

phocos CIS-MPPT-BST (12 A)

Industrial MPPT Solar Charge Controller



Product Introduction

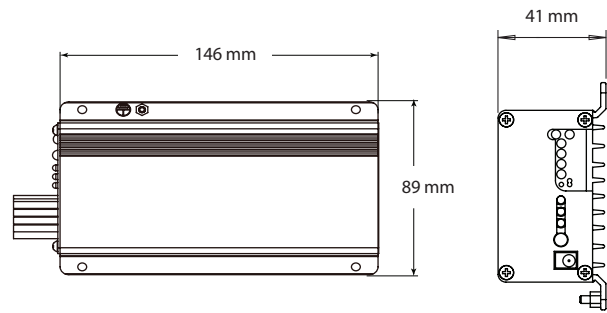
Phocos' CIS-MPPT-BST charge controller is a boost-converting, maximum power point tracking (MPPT) solar charge controller for off-grid applications. The boost MPPT configuration allows charging a 24 V, 36 V or 48 V battery from a 12 V (36 cell) or 24 V (72 cell) solar panel/array. This makes CIS-MPPT-BST an ideal choice for applications where mounting space for solar modules is limited, power requirements are minimal and battery voltage is higher than 12 V.

The high-performance maximum power point tracking (MPPT) algorithm ensures optimal charging current from your panel/array in all conditions. This results in up to 30% higher power yield than conventional PWM charge controllers. This added efficiency paired with Phocos' precision 4-stage, temperature-compensated charge regime significantly extends battery lifespan, reducing number of battery replacements over the useable life of the system.

Product Features

- Charges 24 V, 36 V or 48 V batteries with a 12 or 24 V panel/array
- Up to 98% power-conversion efficiency
- Compact footprint fits in tight spaces
- IP68 design withstands vibration, dust, insects and water ingress
- 2 year datalogging memory
- Infrared programmable battery charging, LVD and lighting control (with CIS-CU remote control or MXI-IR interface)
- Four-stage charging ensures maximum battery lifespan

Technical Drawing



Technical Data

Type	CIS-MPPT-BST-60/12
System Voltage	24/36/48 V auto recognition
Max Charge/Load Current	12 A
Float Charge	27.6/41.4/55.2 V (25 °C)
Main Charge	28.8/43.2/57.6 V (25 °C), 0.5h daily
Boost Charge	28.8/43.2/57.6 V (25 °C), 2h activation: battery voltage <24.6/36.9/49.2 V
Equalization Charge	29.6/44.4/59.2 V (25 °C), 2h activation: battery voltage <24.2/36.3/48.4 V (at least every 30 days)
Overvoltage Protection	31.0/46.5/62.0 V
Max Panel Input Voltage	60 Voc
Max PV Power Input	200 W (24 V)/400 W (36 V/48 V)
Temperature Compensation	-25 mV/K (24 V); -50 mV/K (36 V/48 V)
Idle Self-Consumption	<10 mA
Grounding	Negative grounding
Ambient Temperature	-40 to +60°C
Max Altitude	4,000m above sea level
Battery Type	Lead acid (gel, AGM, flooded)
Datalogger	2 years
Wire Length	228.6 mm / 9 in
9Wire Cross Section	2.5 mm ² (AWG 13)
Dimensions	89 x 146 x 41 mm / 3.5 x 5.8 x 1.6 in
Weight	0.68 kg / 1.5 lbs
Ingress Protection	IP68 (1.5m, 72 h)
Certificates	CE compliant, RoHS compliant
Warranty	5 years