

# CIS-MPPT (10 A)

Industrial Solar Charge Controller



- High efficiency (up to 98%)
- Maximizes power output & reduces system costs
- SMD assembly, greater reliability
- IP68 protection
- High current rated MOSFETs
- High performance microcontroller
- Integrated timer and dimming for flexible lighting control
- Nightlight function
- Auto-saving function: two voltage disconnect levels
- Programmable via CIS-CU IR remote control unit
- Datalogger via MXI-IR and CISCOM software
- Compatible with 60 cell PV modules (12 V system only)

## CIS-MPPT 50/10:

With innovative maximum power point tracking technology, this Phocos MPP tracker ensures maximum performance and yield from a variety of solar systems.

The use of MPPT technology can contribute to a considerable boost in power output from PV modules (up to 30% more). Especially in moderate/colder climate areas where PV module voltages tend to be higher. At the same time, the

temperature-compensated, three-stage I-U curve charge control algorithm significantly extends battery lifespan.

The integrated datalogger (2 years period) provides an insight into system performance, displaying important information such as system status, voltage, current, SOC, etc.

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## Industrial Solar Charge Controller

Type	CIS-MPPT 50/10
System voltage	12/24 V auto recognition
Max. charge current/load current	10 A
Max. PV input power	150 W @12 V, 300 W @24 V
Float charge	13.8/27.6 V (25 °C)
Main charge	14.4/28.8 V (25 °C), 30 min. (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	11.4 - 11.9 / 22.8 - 23.8 V by SOC
Load disconnect level	11.0 / 22.0 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 voltage	42 V in 12 V system, 50 V in 24 V system
Temperature compensation (Charge voltage)	-4.2 mV/K (2 V cell)
Idle self-consumption	< 10 mA
Grounding	Positive grounded
Ambient temperature	-40 to +60 °C
Max. altitude	4,000 m above sea level
Battery type	Lead acid (GEL, AGM, flooded)
Adjustment range:	
Evening/morning hours	0 – 15 h / 0 – 14 h
Night detection	2.5 – 10 V / 5.0 – 20.0 V (adjust step 0.5/1.0 V)
Day detection	Night detection + 1.5 V/3.0 V
Datalogger	2 years
Connection wire length	20 cm
Wire cross section	2.5 mm <sup>2</sup>
Dimensions (W x H x D)	88.5 x 112 x 41.4 mm
Weight	625 g
Type of protection	IP68 (1.5 m, 72 h)

Technical data dimming output	CIS-MPPT 50/10
Dimming value	0 – 100% output power (adjust step 10%)
Dimming output voltage	0 – 10 V relative to battery minus
Impedance	1,000 Ohm