

CMLmppt (10 A)

Solar Charge Controller with Maximum Power Point Tracker Technology



- High efficiency (up to 98%)
- Maximizes power output and reduces system costs
- SMD assembly, greater reliability
- New housing design
- High current rated MOSFETs
- High performance micro controller
- More intuitive LED design
- USB port for charging mobile phones or similar USB loads
- Protected terminals
- Easy mounting
- Compatible with 60-cell PV modules (12 V system only)

The CMLmppt charge controller is equipped with a number of outstanding features such as a status indication, alarm, and safety functions.

The temperature compensated, four-stage charging algorithm (float-main-boost-equalization) is adjustable for sealed and vented lead-acid batteries.

The CMLmppt charge controller also allows either a SOC or voltage-controlled low-voltage disconnect.

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

Battery status is clearly indicated by three LEDs. An acoustic alarm warns about an impending low-voltage disconnect (LVD).

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Type	CMLmppt 10
System voltage	12/24 V auto recognition
Max. charge/load current	10 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	14.8/29.6 V (25 °C), 2 h Activation: battery voltage < 12.1/24.2 V
Deep discharge protection:	
State-of-charge dependent	11.4 – 11.9 V / 22.8 – 23.8 V by SOC
Voltage dependent	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. panel voltage	42 V in 12 V system, 50 V in 24 V system
Max. panel power	150 W (12 V system), 300 W (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 +50 °C
Max. altitude	4,000 m above sea level
Battery type	Lead acid (GEL, AGM, flooded)
USB port	5.0 V; 800 mA
Wire cross section	Max. 16,0 mm ² (AWG 6)
Weight	320 g
Dimensions (W x H x D)	127 x 126 x 38 mm
Type of protection	IP20