

PRODUCT OVERVIEW

EV-MC48 Series controller is an advanced maximum power point tracking (MPPT) charging technology for off-grid, security monitoring and household photovoltaic systems.

FEATURES

- Exclusive PowerCatcher MPPT technology enables the controller to track the maximum power point of solar panels even in a complex environment. It has higher response speed and tracking efficiency compared with controllers using traditional MPPT technology.
- MPPT energy utilization efficiency is 15% to 20% higher than the conventional PWM method
- Automatic charging voltage regulation function
- MPPT tracking efficiency up to 99.9%
- Advanced digital power technology increases the circuit energy conversion efficiency to 98%
- Supports charging lithium batteries, gel batteries, sealed batteries and vented batteries
- Limited current charging mode – automatically lowers charging power when solar panel power exceeds a specified level and charging current is higher than rated current
- Compatible with standard Modbus protocol
- Overheat protection mechanism – protects the controller from damage by overheating
- Supports parallel operation
- Embedded Bluetooth 4.0BLE module enables mobile phone app control
- Programmable relay output



Product Description

PART#	DESCRIPTION	RATED CURRENT	SYSTEM VOLTAGE	MAX PV OPEN CIRCUIT VOLTAGE
EV-MC4885N15	MPPT Controller	85A	12V/24V/36V/48V	150V
EV-MC48100N15	MPPT Controller	100A	12V/24V/36V/48V	150V
EV-MC4885N25	MPPT Controller	85A	12V/24V/36V/48V	240V
EV-MC48100N25	MPPT Controller	100A	12V/24V/36V/48V	240V

Specifications

MODEL#	EV-MC4885N15	EV-MC48100N15	EV-MC4885N25	EV-MC48100N25
System Voltage	12V/24V/36V/48V			
No-Load Loss	0.54W			
Battery Voltage	9V~64V			
Max PV Open Circuit Voltage	150V		240V	
Max Voltage Range at Power Point	Battery voltage +2~120V		Battery voltage +2~180V	
Rated Charging Current	85A	100A	85A	100A
Settable Charging Current	0-85A	0-100A	0-85A	0-100A
Solar Panel Power (12V)	1100W	1320W	110W	1320W
Solar Panel Power (24V)	2200W	2640W	2200W	2640W
Solar Panel Power (48V)	4400W	5280W	4400W	5280W
Charging Conversion Efficiency	≤98%			
MPPT Tracing Efficiency	>99%			
Temperature Compensation Coefficient	-3mV/°C/2V (default, settable lead-acid); no temperature compensation; no temperature compensation for lithium battery			
Communications	TTL/Isolated RS485; baud rate 9600, digital bit 3, stop bit 1, no check bit			
Bluetooth	Built-in Bluetooth 4.0BLE module, mobile phone APP monitoring			
Internal Temperature Protection	When interior temperature of controller is exceeds set value, linear power is reduced			
External Temperature Battery Sampling	External temperature controls battery temperature compensation and battery temperature protection			
Programmable Relay	DPST 10A/250VAC ; 10A/30VDC			
Protection Function	Battery overcharging protection, battery over discharge protection, PV anti-reverse protection, reverse charge protection at night, interior overtemperature protection of controller and over-current protection			
Operation Temperature	-31°F ~ 149°F			
Elevation	≤9842ft			
Protection Grade	IP32			
Weight	12.56 LBS			
Dimensions	Standard: 12.36" x 8.93" x 4.76" / MC4: 12.36" x 10.19" x 4.76"			

Product Images



