

# SOLAR MATE

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## MPPT Solar Charge Controller



Regulador Solar SolarMate MPPT

Solar Mate is a solar charge controller with built-in Maximum Power Point Tracking (MPPT) technology, which enables it to increase its PV output by as much as 30% compared with non-MPPT designs.

Solar Mate can optimize the PV's output and eliminate the fluctuation due to shading or temperatures variables. It is a multi-voltage MPPT with built-in sophisticated battery charging algorithm for both lead acid battery or lithium-ion battery, suitable for various system designs. Meantime, it supports data management of 365-day history records, which can tell users the system's actual performance.

### Main Specifications

- High dynamic MPPT efficiency more than 99.9%
- High efficiency up to 98%, and European weighted efficiency up to 97.3%
- Up to 7056W of charging power at 40°C
- Excellent performance at sunrise and low solar insulation levels
- Wide MPPT operating voltage range
- Parallel function, up to 6 units can be operated in parallel
- Built-in TBB premium II battery charging algorithm for lead acid battery
- Support 365days Data logging
- Communication: Auxiliary contact, RS485 support CAN-bus

## SPECIFICATIONS

	SP150-60	SP250-100
<b>Electrical</b>		
Nominal battery voltage	24 or 48 V	48 V
Maximum charging current	60 Amp	100 Amp
Maximum charging power	24 V	1764 W
	48 V	3528 W
Maximum PV input power	24 V	2250 W
	48 V	4500 W
PV Open circuit voltage	150 V	250 V
MPPT Voltage range	65 - 145 Vdc	65 - 245 Vdc
Max PV Shortcircuit current	40 A	80 A
Maximum efficiency		98 % @48Vdc
Max MPPT efficiency		≥99.9%
Self-consumption		37 mA @ 48V
Absorption charge voltage	28,8 / 57,6 V	57,6 V
Float charge voltage	27 / 54 V	54 V
Charge algorithm		TBB II Multistage
Equalization charging		Programmable
<b>Others</b>		
Display		Led + LCD
Communication port		RS485
Dry contact		30V / 2A
remote on / off		Yes, (2 pole connector)
Data logging	365 day of history record, daily, monthly and total production; Real time figure including solar array voltage, battery voltage, charging current, charging power, Record the daily PV start charging time absorb to floating transfer time, PV power loss time and etc.; Real time fault time and information	
Storage Temperature		-40 to 70 °C
Operative temperature		-25 to 60 °C
Humidity		5 - 95 %, without condensation
Altitude		3000 mts.
		Full rated output up to 2000 mts
Max wire sizes		35 mm <sup>2</sup>
Protection grade		IP21
Dimmensions	353 x 293 x 117 mm	353 x 293 x 117 mm
Weight	6,8 Kgr	7,8 Kgr
Cooling	Natural	Forced fan
Standards	EN61000-6-1,EN61000-6-3; EN62109-1	

## DOWNLOADS

### REGULADORES MPPT TBB SOLARMATE

 [Solar\\_Mate\\_MPPT\\_Solar\\_Charger\\_Controller\\_V1.2.pdf](#) Size: 1,42 MB