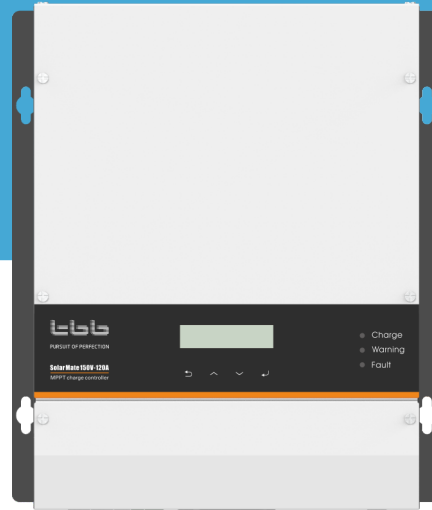




SOLAR MATE



MPPT Charger Controller

150V 120A 150V 80A 150V 60A
250V 100A 250V 70A

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

Solar Mate can optimize the PV output and eliminate the fluctuation due to shading or temperature variables. It is a multi-voltage MPPT with built in sophisticated battery charging algorithm for both lead acid battery or lithium-ion battery, of which could support a wide variety of system designs. Meanwhile, the data management with 365 days of history record can tell user actual performance of its system.

All range products can operate at their full rating in ambient temperatures as high as 40°C.

- High dynamic MPPT efficiency up to 99%
- High efficiency up to 98%, and European weighted efficiency up to 97.3%
- Up to 6720W of charging power
- Excellent performance at sunrise and low solar insulation levels
- Wide MPPT operating voltage range
- Parallel function, up to 4 units can operate in parallel
- Built in TBB premium III battery charging algorithm for lead acid battery
- Support positive grounding
- Data logging 365 days
- Communication : Auxiliary contact, RS485 support T-bus



PV Combiner Box (optional)



Model No.	SP250 - 100	SP250 - 70	SP150 - 120	SP150 - 80	SP150 - 60
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Electrical

Nominal battery voltage (VDC)	24 or 48				
Maximum charging current (40°C) (A)	100	70	120	80	60
Maximum charging power @ 48VDC (W)	5600	3920	6720	4480	3360
Recommended PV (W)	24VDC	3360	2400	4000	2700
	48VDC	6720	4800	8000	5400
PV open circuit voltage (Voc) (VDC)	250		150		
Max. PV short circuit current (A)	80				40
Max efficiency	98%@48VDC system				
Max MPPT efficiency	>99.9%				
Standby power consumption	<2W				
Self-consumption	35mA @ 48VDC				
Charge voltage 'absorption'	Default setting: 28.8VDC / 57.6VDC				
Charge voltage 'float'	Default setting: 27VDC / 54VDC				
Charging algorithm	TBB III multiple stages				
Temperature compensation	Automatic, Default setting: -18mV / °C / cell				
Equalization charging	Programmable				

Others

Display	LED + LCD	
Communication port	RS485	
Dry contact	1 programmable	
Remote on / off	Yes (2 pole connector)	
Data logging	365 days 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°C ~ 70°C	
Operating temperature	-25°C ~ 60°C (power derated above 40°C)	
Humidity	95%, non-condensing	
Altitude	3000m (full rated output up to 2000m)	
Max wire sizes	35mm²	
Protection category	IP21	
Dimension (L x W x H) (mm)	353 * 293 * 116.2	327.5 * 293 * 116.2
Weight (kg)	7.5	7.2
Cooling	Forced fan	Natural cooling
Standard	EN61000 - 6 - 1, EN61000 - 6 - 3, EN62109 - 1, EN62109 - 2	