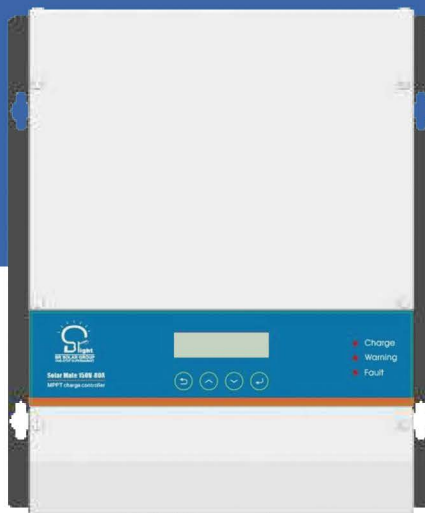


# SOLAR MATE



## 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 BR premium III battery charging algorithm for lead acid battery
- Support positive grounding
- Data logging 365 days
- Communication : Auxiliary contact, RS485 support T bus

Model No.	BR250 - 100	BR250 - 70	BR150 - 120	BR150 - 80	BR150 - 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)	5880	4116	7056	4704	3528	
Recommended PV (W)	24VDC	3750	2700	4500	3000	2250
	48VDC	7500	5400	9000	6000	4500
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	60mA @ 24VDC/37mA @ 48VDC					
Charge voltage 'absorption'	Default setting: 28.2VDC / 56.4VDC					
Charge voltage 'float'	Default setting: 27VDC / 54VDC					
Charging algorithm	BR II multiple stages					
Temperature compensation	Automatic, Default setting: - 3mV / °C / cell					
Equalization charging	Programmable					

## Others

Display	LED + LCD				
Communication port	RS485				
Dry contact	30VDC/2A				
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	5% ~ 95%, non-condensing				
Altitude	3000m (full rated output up to 2000m)				
Max wire sizes	35mm <sup>2</sup>				
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				