



PURSUIT OF PERFECTION



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SOLAR MATE



MPPT Charger Controller

150V 120A 150V 80A
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's 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.

Thanks to its self cooling design, it is suitable for most rugged environment with dust or bugs. All range products can operate at their full rating in ambient temperatures as high as 40°C.



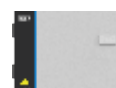
- High dynamic MPPT efficiency up to 99%
- High efficiency up to 98%, and European weighted efficiency up to 97.3%
- Up to 6600W of charging power at 40°C, and power de-rating to 50% when temperature reaches 60°C
- Excellent performance at sunrise and low solar insulation levels
- Wide MPPT operating voltage range
- Parallel function, up to 8 units can operate in parallel
- Self cooling design for high reliability
- Built in TBB premium II battery charging algorithm for lead acid battery
- Support positive grounding
- Low self consumption
- Data logging 365 days
- Communication : Auxiliary contact, RS485 support T-bus



SINETECH

THE POWER OF CHOICE

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PV Box



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

Nominal battery voltage (VDC)	48 (24 settable)			
Maximum charging current (40°C) (A)	120	80	100	70
Maximum charging power @ 48VDC (W)	6720	4480	5600	3920
Recommended PV @ 48VDC (W)	8000	5280	6660	4440
PV open circuit voltage (Voc) (VDC)	150Vdc		250Vdc	
Max. PV short circuit current (A)	70			
Max efficiency	98%@48Vdc system			
Max MPPT efficiency	>99.9%			
Standby power consumption	<2W			
Self-consumption	Less than 5mA @ 48V			
Charge voltage 'absorption' @ 48VDC	Default setting: 57.6V			
Charge voltage 'float' @ 48VDC	Default setting: 54V			
Charging algorithm	TBB III multiple stages			
Temperature compensation	Automatic, - 4mV / °C / cell			
Equalization charging	Programmable			

Others

Display	LED or LED+LCD
Communication port	RS485
Dry contact	1 programmable
Remote on / off	Yes (2 pole connector)
Data logging	365days of history record - AH, WH, time in float, peak watts, Amps, Solar Array voltage, Max battery voltage, Min Battery voltage and Absorb for eady day along with total accumulated Amp Hours and kW hours of production
Storage temperature	-40°C ~ 70°C
Operating temperature	-25°C ~ 60°C (power derated above 40 °)
Humidity	95%, non-condensing
Altitude	3000m (full rated output up to 2000m)
Dimension (L x W x H) - mm	327.5 * 293 * 116.2
Weight (kgs)	7.5
Max wire sizes (mm²)	35
Protection category	IP21
Cooling	Natural cooling
Warranty	5 years
Standard	EN61000-6-1,EN61000-6-3, EN62109-1,EN62109-2

