



Solar Mate

MPPT charge controller
150 VDC/60 A

Solar Mate is a solar charge controller with built in Maximum Power Point Tracking technology, which enable 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 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, of which could support a wide variety of system designs. Meantime, the data management with 120days 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 rang products can operate at theirfull rating in ambient temperatures as high as 45°C.

- For off-grid photovoltaic system up to max 3.6 KW
- Peak efficiency 98%
- Excellent performance at sunrise and low solar insulation levels
- Low self consumption
- Continuous operation at full power up to 45°C without de-rating
- Self cooling design for high reliability
- Built in TBB premium II battery charging algorithm for lead acid battery
- Data logging
- Auxiliary contact with RS485 support T-Bus

TS

Temperature Sensor



PVB

PV junction box



Electrical

| | | SP60 |
|-------------------------------|--------|------------------------|
| Nominal battery voltage | | 12,24 or 48 VDC |
| PV open circuit voltage (Voc) | | 150 VDC |
| Maximum output current | | 60 A |
| Recommended PV | 12 VDC | 800 W |
| | 24 VDC | 1600 W |
| | 48 VDC | 3200 W |
| Max efficiency (full load) | | 98%@48 VDC system |
| Standby power consumption | | <3 W |
| Charging algorithm | | TBB II multiple stages |
| Temperature compensation | | Automatic, settable |
| Equalization charging | | Programmable |

Others

| | |
|------------------------|--|
| Communication port | RS485 |
| Dry contact | 1 programmable |
| Data logging | 120days 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 |
| Operating temperature | -20°C ~ 45°C |
| Dimension (LxWxH) - mm | 390x199x130 |
| Weight (kgs) | 7.0 |
| Max wire sizes | 35mm² |
| Protection | IP20 |
| Cooling | Natural cooling |
| Standard | IEC/EN61000-6-1,-6-3,IEC/EN62109-1 |