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| MPPT SUNRISE SPECIFICATIONS | | | | | | | | | | | | |
|  | | **MPPT**  **12V-10A-Li-Ioni-booST** | | | | **MPPT**  **24V-10A-Li-Ioni-booST** | | | **MPPT**  **36V-10A-Li-Ioni-booST** | | | **MPPT**  **48V-10A-Li-Ioni-booST** |
| Topology | | Boost | | | Boost | | | Boost | | | Boost | |
| Rated Panel (Input) Current | | 10 A | | | 10 A | | | 10 A | | | 10 A | |
| Minimum Panel Voltage for Charging: | | 5 V | | | 5 V | | | 5 V | | | 5 V | |
| Maximum Input Panel Voltage | | 65 V | | | 65 V | | | 65 V | | | 65 V | |
| Maximum Recommended Panel Vmp | | 14 V | | | 26 V | | | 43 V | | | 50 V | |
| Solar Panel Maximum Power | | 140 W | | | 260 W | | | 430 W | | | 500 W | |
| Rated Battery Voltage | | 12 V | | | 28 V | | | 36 V | | | 48 V | |
| CV Voltage | | 16.8 V | | | 33.6 V | | | 50.4 V | | | 58.8 V | |
| Charge Profile: | CC/CV   * Medium Cell Voltage * Max Cell Voltage from BMS by CAN BUS | | | | | | | | |  | | | |
| Peak efficiency | 98% Typ. | | | | | | | | |  | | | |
| Temperature compensation | -16 mV / °C | | | -32 mV / °C | | | -48 mV / °C | | | -64 mV / °C | | | |
| MPP Tracking Efficiency | > 99% (Perturb and Observe) | | | | | | | | |  | | | |
| MPPT Tracking Speed | 100 ms | | | | | | | | |  | | | |
| Operating Temperature | -40°C to 85°C | | | | | | | | |  | | | |
| Self-consumption | < 1 W | | | | | | | | |  | | | |
| Type of power supply | * 12V (isolated DC\DC inside) (Optional) * Solar panel (Voc\_max 65V) * Battery (Default) | | | | | | | | |  | | | |
| Port I/O | | | | | | | | | | | | | |
| Data Communication Port | * First CAN-bus Default not isolated, isolated available (Optional) ISO 11898-1 (1Mb max adjustable) * Second CAN-bus Optional (available isolated or not) ISO 11898-1 (1Mb max adjustable) for gate way node function | | | | | | | | | | | | |
| Analog Input Signal\* | * Power supply +5V (max 20mA for channel) * 2 Channel (Temperature, Current, etc) | | | | | | | | |  | | | |
| Digital Input Signal\* | 2 Channel active low (internal pull up resistance) | | | | | | | | |  | | | |
| General Purpose Relay Contacts\* | * NC (max 10A, 30V resistive load) * NO (max 10A, 30V resistive load) | | | | | | | | |  | | | |
| Protection | | | | | | | | | | | | | |
| Battery Fuse | 20 A | | | | | | | | |  | | | |
| Polarity inversion | Y | | | | | | | | |  | | | |
| Over Temperature | Y (Adjustable) | | | | | | | | |  | | | |
| Overload | Y (Adjustable) | | | | | | | | |  | | | |
| Enclosure | | | | | | | | | | | | | |
| Environmental Protection | * IP 22 * IP 65 (Optional) | | | | | | | | | | | | |
| Dimensions (h x w x d) | 146 x 96 x 38 mm (IP22)  148 x 94 x 34 mm (IP65) | | | | | | | | |  | | | |
| Weight | 300 g | | | | | | | | |  | | | |
| \* configurable for customer necessity | | |  | | | | | | | | | | |