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| MPPT SUNRISE SPECIFICATIONS | | | | | | |
|  | **MPPT**  **12V-20A-Li-Ioni-BUck** | | | **MPPT**  **24V-20A-Li-Ioni-BUck** | **MPPT**  **36V-20A-Li-Ioni-BUck** | |
| Topology | Buck | | | Buck | Buck | |
| Rated Battery Voltage | 12 V | | | 24 V | 36 V | |
| Rated Charge Current | 20 A | | | 20 A | 20 A | |
| Charge Profile: | CC/CV   * Medium Cell Voltage * Max Cell Voltage from BMS by CAN BUS | | | | | |
| Absolute Maximum Input Panel Voltage | 80 V | | | 80 V | 80 V | |
| Minimum Recommended Panel Vmp | 20 V | | | 41 V | 52.5 V | |
| Solar Panel Maximum Power | 340 W | | | 700 W | 900 W | |
| CV Voltage | 16.8 V | | | 33.6 V | 42 V | |
| Peak efficiency | 98% Typ. | | | | | |
| 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 | | |  | | | |