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| MPPT SUNRISE SPECIFICATIONS | | | | |
|  | **MPPT**  **12V-20A-Pb-BUck** | | **MPPT**  **24V-20A-Pb-BUck** | **MPPT**  **36V-20A-Pb-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: | Multi-Stage with Temperature Compensation | | | |
| Absolute Maximum Input Panel Voltage | 80 V | | 80 V | 80 V |
| Minimum Recommended Panel Vmp | 17.5 V | | 35 V | 52.5 V |
| Solar Panel Maximum Power | 300 W | | 600 W | 900 W |
| Charge voltage 'absorption'  (Adjustable) | 14.4 V | | 28.8 V | 43.2 V |
| Charge voltage 'float'  (Adjustable) | 13.8 V | | 27.6 V | 41.4 V |
| Peak efficiency | 98% Typ. | | | |
| Temperature compensation | -16 mV / °C | | -32 mV / °C | -48 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) | | | |
| Relay Contacts\* | * NC (max 10A, 30V resistive load) (Optional) * NO (max 10A, 30V resistive load) (Optional) | | | |
| Protection | | | | |
| Battery Fuse | 20 A | | | |
| Polarity inversion | Y | | | |
| Over Temperature | Y (Adjustable) | | | |
| Overload | Y (Adjustable) | | | |
| Enclosure | | | | |
| Protection Category | * 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 | |  | | | |