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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)
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| 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)
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| 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 |  |