

# Specifications

## Model SD-PRO-EU 12K

| Solar Input Data                      |   |
|---------------------------------------|---|
| Recommended Max. PV Array Size        | 24000W  |
| Max. PV Input Power                   | 18000W  |
| Max. Input Voltage                    | 500V  |
| Start-up Voltage                      | 90V   |
| MPP1 Voltage Range                    | 90-450V   |
| Max. Input Current per MPP1           | 30+50A  |
| Max. Short Circuit Current per MPP1   | 44+44A  |
| Number of MPP1                        | 2   |
| Number of Strings per MPP1            | 2   |
| Battery Data                          |   |
| Battery Type                          | Li-Ion / Lead-acid  |
| Normal Battery Voltage                | 48V   |
| Battery Voltage Range                 | 40-60V  |
| Max. Discharge Current                | 280A  |
| Max. Charge / Discharge Power         | 12000W  |
| Li-Ion Battery Activation             | Yes   |
| Li-Ion Battery Communication          | CAN / RS485   |
| Max. Solar Charge Current             | 250A  |
| Max. AC Charge Current                | 210A  |
| Max. Charge Current (PV+AC)           | 250A  |
| AC Input Data (Grid / GEN)            |   |
| Normal Input Voltage                  | 230V <sub>ac</sub> , L / N / PE                                 |
| Input Voltage Range                   | 90-280(APL) / 170-265(UPS)                                      |
| Max. AC Current from Utility Grid     | 70A   |
| Max. Apparent Power from Utility Grid | 12000VA   |
| Max. AC Current from Generator        | 60A   |
| Max. Apparent Power from Generator    | 12000VA   |
| AC Frequency Range                    | 50 / 60Hz (Auto sensing)  |
| Inverter Output Data                  |   |
| Normal Output Power                   | 12000W  |
| Peak Apparent AC Power                | 24000VA   |
| Nominal AC Voltage                    | 230V <sub>ac</sub>  |
| Nominal Grid Frequency                | 50 / 60Hz   |
| Voltage Waveform                      | Pure Sine wave  |
| Transfer Time                         | 4ms   |
| Max. Output Current                   | 52.2A   |
| Overload Protection                   | 30s@102%-110% load;<br>10s@110%-130% load;<br>5s@130%-200% load |
| THDV (@linear load)                   | <5%   |
| Efficiency                            |   |
| Peak Efficiency                       | 94%   |
| MPP1 Efficiency                       | >=99.9%   |
| Protection                            |   |
| PV Reverse Polarity Protection        | yes   |
| AC Short-circuit Current Protection   | yes   |
| Grid Monitoring                       | yes   |
| Over-current Protection               | yes   |
| Over-voltage Protection               | yes   |
| AC Surge Protection                   | yes   |
| DC Surge Protection                   | yes   |
| System Parameters                     |   |
| Dimension (W*H*D)                     | 625*400*120mm   |
| Weight                                | 17.9kg  |
| Relative Humidity                     | 5%-95% (Non-condensing)   |
| Operating Temperature Range           | -10°C-60°C  |
| Noise Emission                        | <50dB   |
| Altitude                              | 2000m   |
| Cooling Method                        | Fan Cooling   |
| Ingress Protection                    | IP21  |
| Characteristic                        |   |
| Number of AC Output                   | 2   |
| Display                               | LCD & APP   |
| Communication Interface               | RS485 / USB / CAN / Wi-Fi (built-in) / Dry-Contact              |
| Parallel Capability                   | 9   |