

# SUN2000-30/36/40KTL-M3

## Technical Specification

| Technical Specification                           |                                                                                                                                                                                                                              | SUN2000-30KTL-M3 | SUN2000-36KTL-M3 | SUN2000-40KTL-M3 |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|------------------|
| Efficiency                                        |                                                                                                                                                                                                                              |                  |                  |                  |
| Max. Efficiency                                   | 98.7%                                                                                                                                                                                                                        |                  |                  |                  |
| European Efficiency                               | 98.4%                                                                                                                                                                                                                        |                  |                  |                  |
| Input                                             |                                                                                                                                                                                                                              |                  |                  |                  |
| Max. Input Voltage <sup>1</sup>                   | 1,100 V                                                                                                                                                                                                                      |                  |                  |                  |
| Max. Current per MPPT                             | 26 A                                                                                                                                                                                                                         |                  |                  |                  |
| Max. Short Circuit Current per MPPT               | 40 A                                                                                                                                                                                                                         |                  |                  |                  |
| Start Voltage                                     | 200 V                                                                                                                                                                                                                        |                  |                  |                  |
| MPPT Operating Voltage Range <sup>2</sup>         | 200 V ~ 1000 V                                                                                                                                                                                                               |                  |                  |                  |
| Rated Input Voltage                               | 600 V                                                                                                                                                                                                                        |                  |                  |                  |
| Number of Inputs                                  | 8                                                                                                                                                                                                                            |                  |                  |                  |
| Number of MPP Trackers                            | 4                                                                                                                                                                                                                            |                  |                  |                  |
| Output                                            |                                                                                                                                                                                                                              |                  |                  |                  |
| Rated AC Active Power                             | 30,000 W                                                                                                                                                                                                                     | 36,000 W         | 40,000 W         |                  |
| Max. AC Apparent Power                            | 33,000 VA <sup>3</sup>                                                                                                                                                                                                       | 40,000 VA        | 44,000 VA        |                  |
| Rated Output Voltage                              | 230 Vac / 400 Vac / 480 Vac, 3W/N+PE                                                                                                                                                                                         |                  |                  |                  |
| Rated AC Grid Frequency                           | 50 Hz / 60 Hz                                                                                                                                                                                                                |                  |                  |                  |
| Rated Output Current                              | 43.3 A                                                                                                                                                                                                                       | 52.0 A           | 57.8 A           |                  |
| Max. Output Current                               | 47.9 A                                                                                                                                                                                                                       | 58.0 A           | 63.8 A           |                  |
| Adjustable Power Factor Range                     | 0.8 LG ... 0.8 LD                                                                                                                                                                                                            |                  |                  |                  |
| Max. Total Harmonic Distortion                    | < 3%                                                                                                                                                                                                                         |                  |                  |                  |
| Protection                                        |                                                                                                                                                                                                                              |                  |                  |                  |
| Input-side Disconnection Device                   | Yes                                                                                                                                                                                                                          |                  |                  |                  |
| Anti-islanding Protection                         | Yes                                                                                                                                                                                                                          |                  |                  |                  |
| AC Overcurrent Protection                         | Yes                                                                                                                                                                                                                          |                  |                  |                  |
| DC Reverse-polarity Protection                    | Yes                                                                                                                                                                                                                          |                  |                  |                  |
| PV-array String Fault Monitoring                  | Yes                                                                                                                                                                                                                          |                  |                  |                  |
| DC Surge Arrester                                 | Yes                                                                                                                                                                                                                          |                  |                  |                  |
| AC Surge Arrester                                 | Yes                                                                                                                                                                                                                          |                  |                  |                  |
| DC Insulation Resistance Detection                | Yes                                                                                                                                                                                                                          |                  |                  |                  |
| Residual Current Monitoring Unit                  | Yes                                                                                                                                                                                                                          |                  |                  |                  |
| Arc Fault Protection                              | Yes                                                                                                                                                                                                                          |                  |                  |                  |
| Ripple Receiver Control                           | Yes                                                                                                                                                                                                                          |                  |                  |                  |
| Integrated PID Recovery <sup>4</sup>              | Yes                                                                                                                                                                                                                          |                  |                  |                  |
| Communication                                     |                                                                                                                                                                                                                              |                  |                  |                  |
| Display                                           | LED Indicators, Integrated WLAN + FusionSolar APP                                                                                                                                                                            |                  |                  |                  |
| RS485                                             | Yes                                                                                                                                                                                                                          |                  |                  |                  |
| Smart Dongle                                      | WLAN/Ethernet via Smart Dongle-WLAN-FE (Optional)<br>4G / 3G / 2G via Smart Dongle-4G (Optional)                                                                                                                             |                  |                  |                  |
| Monitoring BUS (MBUS)                             | Yes (Isolation Transformer required)                                                                                                                                                                                         |                  |                  |                  |
| General Data                                      |                                                                                                                                                                                                                              |                  |                  |                  |
| Dimensions (W x H x D)                            | 640 x 530 x 270 mm (25.2 x 20.9 x 10.6 inch)                                                                                                                                                                                 |                  |                  |                  |
| Weight (with mounting plate)                      | 43 kg (94.8 lb)                                                                                                                                                                                                              |                  |                  |                  |
| Operating Temperature Range                       | -25 ~ + 60 °C (-13 °F ~ 140 °F)                                                                                                                                                                                              |                  |                  |                  |
| Cooling Method                                    | Natural Convection                                                                                                                                                                                                           |                  |                  |                  |
| Max. Operating Altitude                           | 4,000 m (13,123 ft.) (Derating above 2000 m)                                                                                                                                                                                 |                  |                  |                  |
| Relative Humidity                                 | 0% RH ~ 100% RH                                                                                                                                                                                                              |                  |                  |                  |
| DC Connector                                      | Staubli MC4                                                                                                                                                                                                                  |                  |                  |                  |
| AC Connector                                      | Waterproof Connector + OT/DT Terminal                                                                                                                                                                                        |                  |                  |                  |
| Protection Degree                                 | IP 66                                                                                                                                                                                                                        |                  |                  |                  |
| Topology                                          | Transformerless                                                                                                                                                                                                              |                  |                  |                  |
| Nighttime Power Consumption                       | ≤ 5.5W                                                                                                                                                                                                                       |                  |                  |                  |
| Optimizer Compatibility                           |                                                                                                                                                                                                                              |                  |                  |                  |
| DC MBUS Compatible Optimizer                      | SUN2000-450W-P                                                                                                                                                                                                               |                  |                  |                  |
| Standard Compliance (more available upon request) |                                                                                                                                                                                                                              |                  |                  |                  |
| Safety                                            | EN 62109-1/-2, IEC 62109-1/-2, EN 50530, IEC 62116, IEC 60068, IEC 61683                                                                                                                                                     |                  |                  |                  |
| Grid Connection Standards                         | IEC 61727, VDE-AR-N4105, VDE 0126-1-1, BDEW, G59/3, UTE C 15-712-1, CEI 0-16, CEI 0-21, RD 661, RD 1699, P.O. 12.3,RD 413, EN-50438-Turkey, EN-50438-Ireland, C10/11, MEA, Resolution No.7, NRS 097-2-1, AS/NZS 4777.2, DEWA |                  |                  |                  |

1. The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage inverter.

2. Any DC input voltage beyond the operating voltage range may result in inverter improper operating.

3. For Austria, German, Belgium & Ukraine the Max. AC Apparent Power will not exceed 30,000 VA (with regard to grid code: VDE-AR-N-4105, C10/11 & Austria)

4. SUN2000-30~40KTL-M3 raises potential between PV- and ground to above zero through integrated PID recovery function to recover module degradation from PID. Supported module types include: P-type (mono, poly), N-type (nPERT, HIT)