

Smart PV Optimizer



One-Fits-All Optimizer
Easier Business



<5s Module Auto-Mapping



Arc Fault Pinpoint Positioning
Along PV Cable

| Technical Specification | | SUN2000-600W-P | | | |
|--|--|--|--------------------|---------------------|---------------------|
| | | Input | | | |
| Rated Input DC Power ¹ | | 600 W | | | |
| Absolute maximum input voltage | | 80 V | | | |
| MPPT operating voltage range | | 10 - 80 V | | | |
| Maximum Short Circuit Current (Isc) | | 14.5 A | | | |
| Max. efficiency | | 99.5 % | | | |
| Weighted efficiency | | 99.0 % | | | |
| Overvoltage category | | II | | | |
| | | Output | | | |
| Max. output voltage ² | $V_{MOD\ MAX}$ (the Voc of the PV modules connected, corrected for the lowest operating temperature) | | | | |
| Max. output current | | | | | 15 A |
| Output bypass ⁴ | | | | | Yes |
| Shutdown output voltage per optimizer | | | | | 0 V |
| Shutdown output impedance per optimizer | | | | | 1k ohm \pm 10 % |
| | | Communication | | | |
| Communication Method | | MBUS | | | |
| | | Standard Compliance | | | |
| Safety | | IEC62109-1 (class II safety) | | | |
| RoHS | | Yes | | | |
| | | General Data | | | |
| Dimension (W x H x D) | | 75 x 140 x 28 mm (3.0 x 5.5 x 1.1 inch) | | | |
| Weight (including cables) | | 0.6 kg (1.3 lb.) | | | |
| Installation part (optional) | | Frame Mounting Bracket / T-shaped Bolt ⁵ | | | |
| Input connector | | MC4 | | | |
| Input wire length | | 0.15m | | | |
| Output connector | | MC4 | | | |
| Output wire length | | 1.3 m (4.3 ft.) ⁶ | | | |
| Operating temperature / humidity range | | -40 °C ~ 85 °C ⁶ / 0 %RH ~ 100 %RH | | | |
| Degree of protection | | IP68 | | | |
| Compatible product | | SUN2000-5/6KTL-L1, SUN2000-5/6/8/10KTL-M1, SUN2000-8/10/12/15/17/20KTL-M2, SUN2000-29.9/36/40KTL-M3 | | | |
| Long String Design (Full Optimizer) | | SUN2000-2-6KTL-L1 | SUN2000-3-10KTL-M1 | SUN2000-12-20KTL-M2 | SUN2000-30-40KTL-M3 |
| Minimum optimizer number per string ⁷ | | 4 | 6 | 6 | 6 |
| Maximum optimizer number per string | | 25 | 35 | 35 | 25 |
| Maximum DC power per string ⁸ | | 6,000 W | 10,000 W | 12,000 W | 12,000 W |

¹ In the STC environment, The rated power of the module shall not exceed 1.05 times of the optimizer rated input power.

² The power optimizer has the output voltage equal to or less than its input voltage, being the output voltage of the PV module it connects to. Refer to AS/NZS 5033:2021 Clause 4.2.1.2 for the calculation of $V_{MOD\ MAX}$.

³ Power optimizer is bypassed in the string connected to an operating inverter when it fails to work.

⁴ Power optimizer output 0Vdc when disconnecting to the inverter or inverter is shutdown.

⁵ Allow PV module frame installation / extruded aluminum profile installation.

⁶ Fits PV module in landscape and portrait installation.

⁷ Require standard 60 cells module to meet the inverter minimum startup voltage

⁸ Full power capability refers to online smart design tool.