

## S6-GR1P(2.5-6)K

# Solis Single Phase Grid-Tied Inverters

### Features:

- Max. efficiency 97.7%
- String current up to 14A
- Super high frequency switching technology
- Wide voltage range and low startup voltage
- 2 MPPT design with precise MPPT algorithm
- Integrated Export Power Manager (EPM)
- AFCI protection, proactively reduces fire risk
- Compact and lightweight
- Friendly and adaptable connection to the grid

### Models:

S6-GR1P2.5K / S6-GR1P3K

S6-GR1P3.6K / S6-GR1P4K

S6-GR1P4.6K / S6-GR1P5K

S6-GR1P6K



360° View



# DATASHEET

## S6-GR1P(2.5-6)K

| Models                                  | 2.5K                                                                                                                                                                                                                                            | 3K              | 3.6K            | 4K                 | 4.6K            | 5K              | 6K     |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|--------------------|-----------------|-----------------|--------|
| Input DC                                |                                                                                                                                                                                                                                                 |                 |                 |                    |                 |                 |        |
| Recommended max. PV power               | 3.75 kW                                                                                                                                                                                                                                         | 4.5 kW          | 5.4 kW          | 6 kW               | 6.9 kW          | 7.5 kW          | 9 kW   |
| Max. input voltage                      | 550 V                                                                                                                                                                                                                                           | 600 V           |                 |                    |                 |                 |        |
| Rated voltage                           | 250 V                                                                                                                                                                                                                                           | 330 V           |                 |                    |                 |                 |        |
| Start-up voltage                        | 60 V                                                                                                                                                                                                                                            | 120 V           |                 |                    |                 |                 |        |
| MPPT voltage range                      | 50 - 450 V                                                                                                                                                                                                                                      | 90 - 520 V      |                 |                    |                 |                 |        |
| Max. input current                      |                                                                                                                                                                                                                                                 |                 |                 | 14 A / 14 A        |                 |                 |        |
| Max. short circuit current              |                                                                                                                                                                                                                                                 |                 |                 | 22 A / 22 A        |                 |                 |        |
| MPPT number / Max. input strings number |                                                                                                                                                                                                                                                 |                 |                 | 2 / 2              |                 |                 |        |
| Output AC                               |                                                                                                                                                                                                                                                 |                 |                 |                    |                 |                 |        |
| Rated output power                      | 2.5 kW                                                                                                                                                                                                                                          | 3 kW            | 3.6 kW          | 4 kW               | 4.6 kW          | 5 kW            | 6 kW   |
| Max. apparent output power              | 2.8 kVA                                                                                                                                                                                                                                         | 3.3 kVA         | 4 kVA           | 4.4 kVA            | 5 kVA           | 5 kVA           | 6 kVA  |
| Max. output power                       | 2.8 kW                                                                                                                                                                                                                                          | 3.3 kW          | 4 kW            | 4.4 kW             | 5 kW            | 5 kW            | 6 kW   |
| Rated grid voltage                      | 1/N/PE, 220 V / 230 V                                                                                                                                                                                                                           |                 |                 |                    |                 |                 |        |
| Rated grid frequency                    | 50 Hz / 60 Hz                                                                                                                                                                                                                                   |                 |                 |                    |                 |                 |        |
| Rated grid output current               | 11.4 A / 10.9 A                                                                                                                                                                                                                                 | 13.6 A / 13.0 A | 16.0 A / 15.7 A | 18.2 A / 17.4 A    | 20.9 A / 20.0 A | 22.7 A / 21.7 A | 27.3 A |
| Max. output current                     | 13.3 A                                                                                                                                                                                                                                          | 15.7 A          | 16.0 A          | 21.0 A             | 23.8 A          | 25.0 A          | 27.3 A |
| Power factor                            | > 0.99 (0.8 leading - 0.8 lagging)                                                                                                                                                                                                              |                 |                 |                    |                 |                 |        |
| THDi                                    | < 3%                                                                                                                                                                                                                                            |                 |                 |                    |                 |                 |        |
| Efficiency                              |                                                                                                                                                                                                                                                 |                 |                 |                    |                 |                 |        |
| Max. efficiency                         | 97.3%                                                                                                                                                                                                                                           | 97.3%           |                 | 97.6%              |                 | 97.7%           |        |
| EU efficiency                           | 96.5%                                                                                                                                                                                                                                           | 96.6%           |                 | 97.1%              |                 | 97.1%           |        |
| Protection                              |                                                                                                                                                                                                                                                 |                 |                 |                    |                 |                 |        |
| DC reverse-polarity protection          |                                                                                                                                                                                                                                                 |                 |                 | Yes                |                 |                 |        |
| Short circuit protection                |                                                                                                                                                                                                                                                 |                 |                 | Yes                |                 |                 |        |
| Output over current protection          |                                                                                                                                                                                                                                                 |                 |                 | Yes                |                 |                 |        |
| Surge protection                        |                                                                                                                                                                                                                                                 |                 |                 | Yes                |                 |                 |        |
| Grid monitoring                         |                                                                                                                                                                                                                                                 |                 |                 | Yes                |                 |                 |        |
| Anti-islanding protection               |                                                                                                                                                                                                                                                 |                 |                 | Yes                |                 |                 |        |
| Multi peak scan                         |                                                                                                                                                                                                                                                 |                 |                 | Yes                |                 |                 |        |
| Temperature protection                  |                                                                                                                                                                                                                                                 |                 |                 | Yes                |                 |                 |        |
| Integrated AFCI                         |                                                                                                                                                                                                                                                 |                 |                 | Yes <sup>(1)</sup> |                 |                 |        |
| Integrated DC switch                    |                                                                                                                                                                                                                                                 |                 |                 | Yes                |                 |                 |        |
| General Data                            |                                                                                                                                                                                                                                                 |                 |                 |                    |                 |                 |        |
| Dimensions (W × H × D)                  | 310 × 543 × 160 mm                                                                                                                                                                                                                              |                 |                 |                    |                 |                 |        |
| Weight                                  | 11 kg                                                                                                                                                                                                                                           | 11.2 kg         |                 | 12 kg              |                 |                 |        |
| Topology                                | Transformerless                                                                                                                                                                                                                                 |                 |                 |                    |                 |                 |        |
| Self-consumption (night)                | < 1 W                                                                                                                                                                                                                                           |                 |                 |                    |                 |                 |        |
| Operating ambient temperature range     | -25 ~ +60°C                                                                                                                                                                                                                                     |                 |                 |                    |                 |                 |        |
| Relative humidity                       | 0 - 100%                                                                                                                                                                                                                                        |                 |                 |                    |                 |                 |        |
| Ingress protection                      | IP66                                                                                                                                                                                                                                            |                 |                 |                    |                 |                 |        |
| Noise emission (typical)                | < 20 dB(A)                                                                                                                                                                                                                                      |                 |                 |                    |                 |                 |        |
| Cooling concept                         | Natural cooling                                                                                                                                                                                                                                 |                 |                 |                    |                 |                 |        |
| Max. operation altitude                 | 4000 m                                                                                                                                                                                                                                          |                 |                 |                    |                 |                 |        |
| Grid connection standard                | G98 <sup>(2)</sup> or G99, VDE-AR-N 4105/VDE V 0124, EN 50549-1, VDE 0126/UTE C 15/VFR:2019, RD 1699/RD 244/UNE 206006/UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA |                 |                 |                    |                 |                 |        |
| Safety / EMC standard                   | IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-3                                                                                                                                                                                                          |                 |                 |                    |                 |                 |        |
| Features                                |                                                                                                                                                                                                                                                 |                 |                 |                    |                 |                 |        |
| DC connection                           | MC4 connector                                                                                                                                                                                                                                   |                 |                 |                    |                 |                 |        |
| AC connection                           | Quick connection plug                                                                                                                                                                                                                           |                 |                 |                    |                 |                 |        |
| Display                                 | LCD                                                                                                                                                                                                                                             |                 |                 |                    |                 |                 |        |
| Communication                           | RS485, Optional: Wi-Fi, GPRS                                                                                                                                                                                                                    |                 |                 |                    |                 |                 |        |

(1) Activation required. (2) G98 for 2.5K-3.6K.