

## S5-GC(50-60)K

# Solis Three Phase Inverters

### Efficient

- Max. efficiency 98.7%
- String current up to 16A
- 5/6 MPPT design, supports multiple orientation system design
- Night time PID recovery function, increases overall system yield (optional)

### Smart

- Night SVG function
- Supports export power control
- Intelligent string monitoring, smart I-V curve scan
- Scan to register on SolisCloud, supports remote upgrade and control

### Safe

- IP66, C5 Anti-Corrosion Level
- Intelligent redundant fan-cooling
- Globally recognised branded componentry for longer life
- AFCI protection, proactively reduces fire risk

### Economic

- Supports GPRS/WiFi communication with less wiring and reduced installation costs
- DC side supports "Y" connector
- Supports aluminium wire access to reduce cost
- 10/12 string inputs allow for 150%+ DC oversizing

### Models:

S5-GC50K / S5-GC60K



360° View

# DATASHEET

# S5-GC(50-60)K

| Models  | 50K  | 60K             |
|---|--|-----------------|
| <b>Input DC</b>                                   |  |                 |
| Max. input voltage                                | 1100 V   |                 |
| Rated voltage                                     | 600 V  |                 |
| Start-up voltage                                  | 195 V  |                 |
| MPPT voltage range                                | 180-1000 V   |                 |
| Max. input current                                | 5*32 A   | 6*32 A          |
| Max. short circuit current                        | 5*40 A   | 6*40 A          |
| MPPT number/Max. input strings number             | 5/10   | 6/12            |
| <b>Output AC</b>                                  |  |                 |
| Rated output power                                | 50 kW  | 60 kW           |
| Max. apparent output power                        | 55 kVA   | 66 kVA          |
| Max. output power                                 | 55 kW  | 66 kW           |
| Rated grid voltage                                | 3/N/PE, 220 V / 380 V, 230 V / 400 V   |                 |
| Rated grid frequency                              | 50 Hz / 60 Hz  |                 |
| Rated grid output current                         | 76.0 A / 72.2 A  | 91.2 A / 86.6 A |
| Max. output current                               | 83.6 A   | 100.3 A         |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)  |                 |
| THDi  | <3%  |                 |
| <b>Efficiency</b>                                 |  |                 |
| Max. efficiency                                   | 98.7%  |                 |
| EU efficiency                                     | 98.3%  |                 |
| <b>Protection</b>                                 |  |                 |
| DC reverse-polarity protection                    | Yes  |                 |
| Short circuit protection                          | Yes  |                 |
| Output over current protection                    | Yes  |                 |
| Surge protection                                  | DC Type II / AC Type II  |                 |
| Grid monitoring                                   | Yes  |                 |
| Anti-islanding protection                         | Yes  |                 |
| Temperature protection                            | Yes  |                 |
| Strings monitoring                                | Yes  |                 |
| I/V Curve scanning                                | Yes  |                 |
| Integrated AFCI (DC arc-fault circuit protection) | Yes <sup>(1)</sup>   |                 |
| Integrated PID recovery                           | Optional <sup>(2)</sup>  |                 |
| Integrated DC switch                              | Optional   |                 |
| <b>General Data</b>                               |  |                 |
| Dimensions (W*H*D)                                | 691*578*338 mm   |                 |
| Weight  | 54.5 kg  |                 |
| Topology  | Transformerless  |                 |
| Self-consumption (night)                          | <1 W   |                 |
| Operating ambient temperature range               | -25 ~ +60°C  |                 |
| Relative humidity                                 | 0-100%   |                 |
| Ingress protection                                | IP66   |                 |
| Cooling concept                                   | Intelligent redundant fan-cooling  |                 |
| Max. operation altitude                           | 4000 m   |                 |
| Grid connection standard                          | 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, IEC60068, IEC 61683, EN 50530 |                 |
| Safety/EMC standard                               | IEC 62109-1/-2, IEC62116 & IEC 61000-6-1/-2/-3/-4  |                 |
| <b>Features</b>                                   |  |                 |
| DC connection                                     | MC4 connector  |                 |
| AC connection                                     | OT terminal (max. 70 mm <sup>2</sup> )   |                 |
| Display   | LCD, Capacitive touch buttons  |                 |
| Communication                                     | RS485, USB, Optional: Wi-Fi, GPRS  |                 |

(1) Activation required. (2) Due to the similar functional logic, when the night time PID-Recovery function is integrated, the night time var compensation function can not be used. Also, the negative grounding option is not available for inverters with night time PID-Recovery function.