

## S6-EH1P(3-8)K-L-PLUS

# Solis Single Phase Low Voltage Energy Storage Inverters

**New** PLUS model provides solutions for demanding power scenarios

### Features:

- Built-in Backup Port with Automatic UPS switching
- Up to 190A max charge/discharge current
- 6 customisable charge/discharge time settings
- 10 second 200% surge power backup overload capability
- Generator connectivity with multiple input methods and automatic generator On/Off control
- Supports 1ph and 3ph flexible connection with max 48kW in parallel
- Intelligent AC coupling scheme, easily upgrade existing grid-connected systems
- Supports peak shaving control in both "self-use" and "generator" mode
- Compatible with lead-acid and lithium batteries, with multiple battery protection features

### Models:

S6-EH1P3K-L-PLUS / S6-EH1P5K-L-PLUS

S6-EH1P6K-L-PLUS / S6-EH1P8K-L-PLUS



# DATASHEET

# S6-EH1P(3-8)K-L-PLUS

| Models  | 3K  | 5K              | 6K                                | 8K              |
|---|---|-----------------|-----------------------------------|-----------------|
| <b>Input DC (PV side)</b>                         |   |                 |                                   |                 |
| Recommended max. PV array size                    | 6 kW  | 10 kW           | 12 kW                             | 16 kW           |
| Max. usable PV input power                        | 4.8 kW  | 8 kW            | 9.6 kW                            | 12.8 kW         |
| Max. input voltage                                | 500 V   |                 |                                   |                 |
| Rated voltage                                     | 330 V   |                 |                                   |                 |
| Start-up voltage                                  | 90 V  |                 |                                   |                 |
| MPPT voltage range                                | 90-435 V  |                 |                                   |                 |
| Max. input current                                | 16 A / 16 A   |                 |                                   | 32 A / 32 A     |
| Max. short circuit current                        | 20 A / 20 A   |                 |                                   | 40 A / 40 A     |
| MPPT number/Max. input strings number             | 2/2   |                 |                                   | 2/4             |
| <b>Battery</b>                                    |   |                 |                                   |                 |
| Battery type                                      | Li-ion / Lead-acid  |                 |                                   |                 |
| Battery voltage range                             | 40-60 V   |                 |                                   |                 |
| Max. charge / discharge power                     | 3 kW  | 5 kW            | 6 kW                              | 8 kW            |
| Max. charge / discharge current                   | 70 A  | 112 A           | 135 A                             | 190 A           |
| Communication                                     | CAN/RS485   |                 |                                   |                 |
| <b>Output AC (Grid side)</b>                      |   |                 |                                   |                 |
| Rated output power                                | 3 kW  | 5 kW            | 6 kW                              | 8 kW            |
| Max. apparent output power                        | 3 kVA   | 5 kVA           | 6 kVA                             | 8 kVA           |
| Operation phase                                   | 1/N/PE  |                 |                                   |                 |
| Rated grid voltage                                | 220 V / 230 V   |                 |                                   |                 |
| Rated grid frequency                              | 50 Hz / 60 Hz   |                 |                                   |                 |
| Rated grid output current                         | 13.7 A / 13.1 A   | 22.8 A / 21.8 A | 27.3 A / 26.1 A                   | 36.4 A / 34.8 A |
| Max. output current                               | 13.7 A / 13.1 A   | 22.8 A / 21.8 A | 27.3 A / 26.1 A                   | 36.4 A / 34.8 A |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)   |                 |                                   |                 |
| THDi  | <2%   |                 |                                   |                 |
| <b>Input AC (Grid side)</b>                       |   |                 |                                   |                 |
| Input voltage range                               | 187-253 V   |                 |                                   |                 |
| Max. input current                                | 21 A  | 32 A            | 40 A                              | 50 A            |
| Frequency range                                   | 45-55 Hz / 55-65 Hz   |                 |                                   |                 |
| <b>Output AC (Back-up)</b>                        |   |                 |                                   |                 |
| Rated output power                                | 3 kW  | 5 kW            | 6 kW                              | 8 kW            |
| Max. apparent output power                        | 2 times of rated power, 10 s  |                 |                                   |                 |
| Back-up switch time                               | <4 ms   |                 |                                   |                 |
| Rated output voltage                              | 1/N/PE, 220 V / 230 V   |                 |                                   |                 |
| Rated frequency                                   | 50 Hz / 60 Hz   |                 |                                   |                 |
| Rated output current                              | 13.7 A / 13.1 A   | 22.8 A / 21.8 A | 27.3 A / 26.1 A                   | 36.4 A / 34.8 A |
| Max. AC Passthrough current                       | 35 A  | 40 A            | 40 A                              | 50 A            |
| THDv (@linear load)                               | <2%   |                 |                                   |                 |
| <b>Efficiency</b>                                 |   |                 |                                   |                 |
| Max. efficiency                                   | 97.5%   |                 |                                   |                 |
| EU efficiency                                     | 96.5%   |                 |                                   |                 |
| BAT charged by PV/AC Max. efficiency              | 95.3% / 93.9%   |                 |                                   |                 |
| BAT discharged to AC Max. efficiency              | 93.8%   |                 |                                   |                 |
| <b>Protection</b>                                 |   |                 |                                   |                 |
| Ground fault monitoring                           | Yes   |                 |                                   |                 |
| Residual current detection                        | Yes   |                 |                                   |                 |
| DC reverse-polarity protection                    | Yes   |                 |                                   |                 |
| Integrated AFCI (DC arc-fault circuit protection) | Yes <sup>(1)</sup>  |                 |                                   |                 |
| Protection class/Over voltage category            | I / II (PV and BAT), III (MAINS and BACKUP and GEN)                         |                 |                                   |                 |
| <b>General Data</b>                               |   |                 |                                   |                 |
| Dimensions (W*H*D)                                | 335*560*227 mm  |                 |                                   |                 |
| Weight  | 21.6 kg   |                 |                                   | 22.2 kg         |
| Topology  | High frequency isolation (for battery)                                      |                 |                                   |                 |
| Operating ambient temperature range               | -40 ~ +60°C   |                 |                                   |                 |
| Ingress protection                                | IP66  |                 |                                   |                 |
| Cooling concept                                   | Natural convection  |                 | Intelligent redundant fan-cooling |                 |
| Max. operation altitude                           | 4000 m  |                 |                                   |                 |
| Grid connection standard                          | NRS 097-2-1, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA |                 |                                   |                 |
| Safety/EMC standard                               | IEC/EN 62109-1/-2, EN 61000-6-2/-3  |                 |                                   |                 |
| <b>Features</b>                                   |   |                 |                                   |                 |
| DC connection                                     | MC4 plug (PV port) / Terminal Block (BAT port)                              |                 |                                   |                 |
| AC connection                                     | Terminal Block  |                 |                                   |                 |
| Display   | LCD + Bluetooth + APP   |                 |                                   |                 |
| Communication                                     | RS485, CAN, Optional: S3-WiFi-ST, S3-GRPS-ST, LAN                           |                 |                                   |                 |

(1) Activation required.