

## S6-EH3P(30-50)K-H

# Solis Three Phase High Voltage Energy Storage Inverters

### Features:

- 2 seconds of 160% overload capability
- Supports a maximum input current of 20A, making it ideal for all high-power PV modules of any brand
- Real-time battery monitoring, remote upgrade, and battery healing function to prolong battery life
- Supports peak shaving features in "self-use" and "generator" modes
- Supports Unbalanced and Half-Wave Loads on both the Grid and Backup Port
- A wide battery voltage range accommodates the prevalent high-voltage lithium batteries found in the market
- Battery charging/discharging current 140A/70A+70A, suitable for 280Ah cell standard 0.5C application condition
- Supports 200% DC/AC ratio and makes full use of PV charging, providing a long backup

### Models:

S6-EH3P30K-H / S6-EH3P40K-H

S6-EH3P50K-H



# DATASHEET

## S6-EH3P(30-50)K-H

| Models   | 30K             | 40K   | 50K             |
|--|-----------------|---|-----------------|
| <b>Input DC (PV side)</b>                      |                 |   |                 |
| Recommended max. PV array size                 | 60 kW           | 80 kW   | 100 kW          |
| Max. usable PV input power                     | 60 kW           | 80 kW   | 96 kW           |
| Max. input voltage                             |                 | 1000 V  |                 |
| Rated voltage                                  |                 | 600 V   |                 |
| Start-up voltage                               |                 | 180 V   |                 |
| MPPT voltage range                             |                 | 150 - 850 V   |                 |
| Max. input current                             | 3 × 40 A        |   | 4 × 40 A        |
| Max. short circuit current                     | 3 × 60 A        |   | 4 × 60 A        |
| MPPT number / Max. input strings number        | 3 / 6           |   | 4 / 8           |
| <b>Battery</b>                                 |                 |   |                 |
| Battery type                                   |                 | Li-ion  |                 |
| Battery voltage range                          |                 | 150 - 800 V   |                 |
| Max. charge / discharge power                  | 33 kW           | 44 kW   | 55 kW           |
| Max. charge / discharge current                |                 | 70 A × 2 <sup>(1)</sup>   |                 |
| No. of battery inputs                          |                 | 2   |                 |
| Max. charge / discharge power of each input    | 33 kW           | 35 kW   | 35 kW           |
| Communication                                  |                 | CAN / RS485   |                 |
| <b>Output AC (Grid side)</b>                   |                 |   |                 |
| Rated output power                             | 30 kW           | 40 kW   | 50 kW           |
| Max. apparent output power                     | 30 kVA          | 40 kVA  | 50 kVA          |
| 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                      | 45.6 A / 43.3 A | 60.8 A / 57.7 A   | 76 A / 72.2 A   |
| Max. output current                            | 45.6 A / 43.3 A | 60.8 A / 57.7 A   | 76 A / 72.2 A   |
| Power factor                                   |                 | > 0.99 (0.8 leading - 0.8 lagging)  |                 |
| THDi   |                 | < 3%  |                 |
| <b>Input AC (Grid side)</b>                    |                 |   |                 |
| Max. AC passthrough current                    | 91.2 A / 86.6 A | 121.6 A / 115.4 A   | 152 A / 144.4 A |
| Rated input voltage                            |                 | 3/N/PE, 220 V / 380 V, 230 V / 400 V  |                 |
| Rated input frequency                          |                 | 50 Hz / 60 Hz   |                 |
| <b>Input Generator</b>                         |                 |   |                 |
| Max. input power                               | 30 kW           | 40 kW   | 50 kW           |
| Rated input current                            | 45.6 A / 43.3 A | 60.8 A / 57.7 A   | 76 A / 72.2 A   |
| Rated input voltage                            |                 | 3/N/PE, 220 V / 380 V, 230 V / 400 V  |                 |
| Rated input frequency                          |                 | 50 Hz / 60 Hz   |                 |
| <b>Output AC (Back-up)</b>                     |                 |   |                 |
| Rated output power                             | 30 kW           | 40 kW   | 50 kW           |
| Max. apparent output power                     |                 | 1.6 times of rated power, 2 s   |                 |
| Back-up switch time                            |                 | < 10 ms   |                 |
| Rated output voltage                           |                 | 3/N/PE, 220 V / 380 V, 230 V / 400 V  |                 |
| Rated frequency                                |                 | 50 Hz / 60 Hz   |                 |
| Rated output current                           | 45.6 A / 43.3 A | 60.8 A / 57.7 A   | 76 A / 72.2 A   |
| THDv (@linear load)                            |                 | < 2%  |                 |
| <b>Efficiency</b>                              |                 |   |                 |
| Max. efficiency                                |                 | 97.8%   |                 |
| EU efficiency                                  |                 | 97.4%   |                 |
| BAT charged by PV max. efficiency              |                 | 98.5%   |                 |
| BAT charged / discharged to AC max. efficiency |                 | 97.5%   |                 |
| <b>Protection</b>                              |                 |   |                 |
| Anti-islanding protection                      |                 | Yes   |                 |
| Output over current protection                 |                 | Yes   |                 |
| Short circuit protection                       |                 | Yes   |                 |
| Integrated DC switch                           |                 | Yes   |                 |
| DC reverse-polarity protection                 |                 | Yes   |                 |
| Surge protection                               |                 | DC Type II / AC Type II   |                 |
| Integrated AFCI 2.0                            |                 | Optional  |                 |
| <b>General Data</b>                            |                 |   |                 |
| Dimensions (W*H*D)                             |                 | 530 × 880 × 290 mm  |                 |
| Weight   |                 | 73 kg   |                 |
| Topology                                       |                 | Transformerless   |                 |
| Self-consumption (night)                       |                 | < 35 W  |                 |
| Operating ambient temperature range            |                 | -25 ~ +60°C   |                 |
| Relative humidity                              |                 | 0 - 95%   |                 |
| Ingress protection                             |                 | IP66  |                 |
| Cooling concept                                |                 | Intelligent fan-cooling   |                 |
| Max. operation altitude                        |                 | 4000 m  |                 |
| Grid connection standard                       |                 | G99, VDE-AR-N 4105/VDE V 0124, EN 50549-1/EN 50549-10, VDE 0126/UTE C 15/VFR:2019, NTS 631/RD 1699/RD 244/UNE 206006/UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, TOR, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA, PORTARIA Nº 140, DE 21 DE MARÇO DE 2022 |                 |
| Safety / EMC standard                          |                 | IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-4, EN 55011  |                 |
| <b>Features</b>                                |                 |   |                 |
| PV connection                                  |                 | MC4 Quick connection plug   |                 |
| Battery connection                             |                 | Terminal connector  |                 |
| AC connection                                  |                 | Terminal Block  |                 |
| Display  |                 | 7.0" LCD display & Bluetooth + APP  |                 |
| Communication                                  |                 | CAN, RS485, Ethernet, Optional: Wi-Fi, Cellular, LAN  |                 |

(1) Supporting parallel 140A input.