

## Models:

S6-EH3P30K-H

S6-EH3P50K-H



## 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

**S6-EH3P(29.9-50)K-H**

| Models                                         | 30KW                                                                                                                                                                                                                                                                                       | 50KW            |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Input DC (PV side)                             |                                                                                                                                                                                                                                                                                            |                 |
| Recommended max. PV array size                 | 60 kW                                                                                                                                                                                                                                                                                      | 100 kW          |
| Max. usable PV input power                     | 60 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                             | 40 A / 40 A / 40 A                                                                                                                                                                                                                                                                         | 4 × 40 A        |
| Max. short circuit current                     | 60 A / 60 A / 60 A                                                                                                                                                                                                                                                                         | 4 × 60 A        |
| MPPT number / Max. input strings number        | 3 / 6                                                                                                                                                                                                                                                                                      | 4 / 8           |
| Battery                                        |                                                                                                                                                                                                                                                                                            |                 |
| Battery type                                   | Li-ion                                                                                                                                                                                                                                                                                     |                 |
| Battery voltage range                          | 150 - 800 V                                                                                                                                                                                                                                                                                |                 |
| Max. charge / discharge power                  | 33 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           |
| Communication                                  | CAN / RS485                                                                                                                                                                                                                                                                                |                 |
| Output AC (Grid side)                          |                                                                                                                                                                                                                                                                                            |                 |
| Rated output power                             | 30 kW                                                                                                                                                                                                                                                                                      | 50 kW           |
| Max. apparent output power                     | 30 kVA                                                                                                                                                                                                                                                                                     | 50 kVA          |
| Rated grid voltage                             | 3/N/PE, 220 V / 380 V; 3/N/PE, 230 V / 400 V                                                                                                                                                                                                                                               |                 |
| Rated grid frequency                           | 50 Hz / 60 Hz                                                                                                                                                                                                                                                                              |                 |
| Rated grid output current                      | 45.6 A / 43.3 A                                                                                                                                                                                                                                                                            | 76 A / 72.2 A   |
| Max. output current                            | 45.6 A / 43.3 A                                                                                                                                                                                                                                                                            | 76 A / 72.2 A   |
| Power factor                                   | > 0.99 (0.8 leading - 0.8 lagging )                                                                                                                                                                                                                                                        |                 |
| THDi                                           | < 3%                                                                                                                                                                                                                                                                                       |                 |
| Input AC (Grid side)                           |                                                                                                                                                                                                                                                                                            |                 |
| Max. AC passthrough current                    | 91.2 A / 86.6 A                                                                                                                                                                                                                                                                            | 152 A / 144.4 A |
| Rated input voltage                            | 3/N/PE, 220 V / 380 V; 3/N/PE, 230 V / 400 V                                                                                                                                                                                                                                               |                 |
| Rated input frequency                          | 50 Hz / 60 Hz                                                                                                                                                                                                                                                                              |                 |
| Input Generator                                |                                                                                                                                                                                                                                                                                            |                 |
| Max. input power                               | 30 kW                                                                                                                                                                                                                                                                                      | 50 kW           |
| Rated input current                            | 45.6 A / 43.3 A                                                                                                                                                                                                                                                                            | 76 A / 72.2 A   |
| Rated input voltage                            | 3/N/PE, 220 V / 380 V; 3/N/PE, 230 V / 400 V                                                                                                                                                                                                                                               |                 |
| Rated input frequency                          | 50 Hz / 60 Hz                                                                                                                                                                                                                                                                              |                 |
| Output AC (Back-up)                            |                                                                                                                                                                                                                                                                                            |                 |
| Rated output power                             | 30 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; 3/N/PE, 230 V / 400 V                                                                                                                                                                                                                                               |                 |
| Rated frequency                                | 50 Hz / 60 Hz                                                                                                                                                                                                                                                                              |                 |
| Rated output current                           | 45.6 A / 43.3 A                                                                                                                                                                                                                                                                            | 76 A / 72.2 A   |
| THDv (@linear load)                            | < 2%                                                                                                                                                                                                                                                                                       |                 |
| Efficiency                                     |                                                                                                                                                                                                                                                                                            |                 |
| 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%                                                                                                                                                                                                                                                                                      |                 |
| Protection                                     |                                                                                                                                                                                                                                                                                            |                 |
| 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                                                                                                                                                                                                                                                                                   |                 |
| General Data                                   |                                                                                                                                                                                                                                                                                            |                 |
| 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                                                                                                                                                                                                                                           |                 |
| Features                                       |                                                                                                                                                                                                                                                                                            |                 |
| 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.