solis

GINLONG TECHNOLOGIES CO.,LTD.

# S6-EH3P(12-20)K-H

## Solis Three Phase High Voltage Energy Storage Inverters

### Features:

- Generator-compatible to extend backup duration during grid power outage
- Supports dual backup ports for intelligent control of critical and non-critical loads
- SG heat pump compatibility
- Supports a maximum input current of 20A, making it ideal for all high-power PV modules of any brand
- Supports AC voltage detection of grid and generator output to prevent damage to generators from reverse current from the grid
- Supports peak shaving features
- Supports Unbalanced and Half-Wave Loads on both the Grid and Backup Port

### Models:

S6-EH3P12K-H

S6-EH3P15K-H

S6-EH3P20K-H

# DATASHEET

# S6-EH3P(12-20)K-H

| Models | 12K | 15K | 20K |
|---|---|---|---|
| **Input DC (PV side)** | | | |
| Recommended max. PV array size | 24 kW | 30 kW | 40 kW |
| Max. usable PV input power | 19.2 kW | 24 kW | 32 kW |
| Max. input voltage | | 1000 V | |
| Rated voltage | | 600 V | |
| Start-up voltage | | 160 V | |
| MPPT voltage range | | 200 - 850 V | |
| Max. input current | | 4 × 20 A | |
| Max. short circuit current | | 4 × 30 A | |
| MPPT number / Max. input strings number | | 4 / 4 | |
| **Battery** | | | |
| Battery type | | Li-ion | |
| Battery voltage range | | 120 - 800 V | |
| Max. charge / discharge power | 12 kW | 15 kW | 20 kW |
| Max. charge / discharge current | | 50 A | |
| Communication | | CAN / RS485 | |
| **Output AC (Grid side)** | | | |
| Rated output power | 12 kW | 15 kW | 20 kW |
| Max. apparent output power | 12 kVA | 15 kVA | 20 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 | 18.2 A / 17.3 A | 22.8 A / 21.7 A | 30.4 A / 28.9 A |
| Max. output current | 18.2 A / 17.3 A | 22.8 A / 21.7 A | 30.4 A / 28.9 A |
| Power factor | | > 0.99 (0.8 leading - 0.8 lagging) | |
| THDi | | < 3% | |
| **Input AC (Grid side)** | | | |
| Input voltage range | | 304 - 437 V / 320 - 460 V | |
| Max. input current | 27.3 A / 26.0 A | 34.2 A / 32.5 A | 45.6 A / 43.3 A |
| Rated grid frequency | | 50 Hz / 60 Hz | |
| Frequency range | | 45 - 55 Hz / 55 - 65 Hz | |
| **Input Generator** | | | |
| Max. input power | 12 kW | 15 kW | 20 kW |
| Max. input current | 18.2 A / 17.3 A | 22.8 A / 21.7 A | 30.4 A / 28.9 A |
| Rated input frequency | | 50 Hz / 60 Hz | |
| **Output AC (Back-up)** | | | |
| Rated output power | 12 kW | 15 kW | 20 kW |
| Max. apparent output power | 2 times of rated power, 10 s | | 1.6 time of rated power, 10 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 | 18.2 A / 17.3 A | 22.8 A / 21.7 A | 30.4 A / 28.9 A |
| THDv (@linear load) | | < 3% | |
| **Efficiency** | | | |
| Max. efficiency | | 97.7% | |
| EU efficiency | | 97.5% | |
| BAT charged by PV max. efficiency | | 98.5% | |
| BAT charged / discharged to AC max. efficiency | | 97.2% | |
| **Protection** | | | |
| Anti-islanding protection | | Yes | |
| Output over current protection | | Yes | |
| Short circuit protection | | Yes | |
| Integrated AFCI 2.0 | | Optional | |
| Integrated DC switch | | Yes | |
| DC reverse-polarity protection | | Yes | |
| PV over voltage protection | | Yes | |
| Battery reverse protection | | Yes | |
| **General Data** | | | |
| Max. allowable phase imbalance (grid & back-up) | | 100% | |
| Max. power per phase (grid & back-up) | 50% rated power | | 40% rated power |
| Dimensions (W × H × D) | | 563 × 546 × 250 mm | |
| Weight | | 35.2 kg | |
| Topology | | Transformerless | |
| Self-consumption (night) | | < 25 W | |
| Operating ambient temperature range | | -25 ~ +60°C | |
| Relative humidity | | 0 - 95% | |
| Ingress protection | | IP66 | |
| Noise emission (typical) | | < 65 dB(A) | |
| Cooling concept | | Intelligent fan-cooling | |
| Max. operation altitude | | 2000 m | |
| Grid connection standard | | EN 50549-1/-10, VDE4105, CEI 0-21, CEI 0-16, NC-RFG TypeB, NRS 097-2-1, LTU-1, G99, PEA | |
| Safety / EMC standard | | IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4 | |
| **Features** | | | |
| PV connection | | MC4 connector | |
| Battery connection | | OT terminal | |
| AC connection | | OT terminal | |
| Display | | 7.0" LCD display & Bluetooth + APP | |
| Communication | | CAN, RS485, Ethernet, Optional: Wi-Fi, Cellular, LAN | |