

**12-20K**

# SOLARATOR SERIES

Experience Uninterrupted Power with Solis Energy Storage Inverters

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

Three Phase | High Voltage



### Smart Energy Management

- AI intelligently manages charging and discharging based on TOU (Time-of-Use) tariffs
- Seamless integration with VPP and EMS platforms for enhanced energy optimization
- Built-in control for SG-ready heat pumps

### High Performance

- Supports three-phase unbalanced output, allowing up to 40% of rated inverter power per phase
- 160% PV input capacity to maximize solar energy utilization
- Switching time < 10ms

### Flexible & Scalable

- Compatible with mainstream lithium batteries
- Easily expand system capacity using parallel connections and AC coupling

### Simple & Fast Configuration

- 7-inch large screen uses U.S.-made ZEITLER industrial-grade components
- Bluetooth app support for quick and easy setup

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# DATASHEET

| Models  | 12K   | 15K  | 20K             |
|---|---|--|-----------------|
| <b>Input DC (PV side)</b>                       |   |  |                 |
| 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  |                 |
| <b>Battery</b>                                  |   |  |                 |
| Battery module models                           |   | SolisStor-(15-40)kWh-H-ST-66                         |                 |
| Number of battery modules                       |   | 1 ~ 8  |                 |
| Battery voltage range                           |   | 120 - 800 V  |                 |
| Battery type                                    |   | Li-ion   |                 |
| Max. charge / discharge power                   | 12 kW   | 15 kW  | 20 kW           |
| Max. charge / discharge current                 |   | 50 A   |                 |
| Communication                                   |   | CAN / RS485  |                 |
| <b>Output AC (Grid side)</b>                    |   |  |                 |
| 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%   |                 |
| <b>Input AC (Grid side)</b>                     |   |  |                 |
| Input voltage range                             |   | 304 - 437 V / 320 - 460 V                            |                 |
| Max. input current                              | 27.3 A / 26.0 A   | 34.2 A / 32.5 A                                      |                 |
| Rated grid frequency                            |   | 50 Hz / 60 Hz  |                 |
| Frequency range                                 |   | 45 - 55 Hz / 55 - 65 Hz                              |                 |
| <b>Input Generator</b>                          |   |  |                 |
| 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  |                 |
| <b>Output AC (Back-up)</b>                      |   |  |                 |
| Rated output power                              | 12 kW   | 15 kW  | 20 kW           |
| Max. apparent output power                      |   | 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%   |                 |
| <b>Efficiency</b>                               |   |  |                 |
| 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%  |                 |
| <b>Protection</b>                               |   |  |                 |
| 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  |                 |
| <b>General Data</b>                             |   |  |                 |
| Max. allowable phase imbalance (grid & back-up) |   | 100%   |                 |
| Max. power per phase (grid & back-up)           |   | 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 - 100%   |                 |
| Ingress protection                              |   | IP66   |                 |
| Noise emission (typical)                        |   | < 65 dB(A)   |                 |
| Cooling concept                                 |   | Intelligent fan-cooling                              |                 |
| Max. operation altitude                         |   | 4000 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  |  |                 |
| <b>Features</b>                                 |   |  |                 |
| 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 |                 |