



solis

20<sup>th</sup>  
ANNIVERSARY



# SOLARATOR SERIES

Experience Uninterrupted Power with Solis Energy Storage Inverters

**S6-EH3P30K-H-LV**

Three Phase | High Voltage

## 6 Leading Features

- Supports flexible PV connection through DC and AC coupling for retrofitting and expanding
- Supports battery reserve function in multiple scenarios
- Smart Load Prioritizing – Extending support for critical loads
- SmartLoad/GEN/INV port - Flexible connection of multiple energy sources such as Grid-tied inverter, diesel generator, wind turbines, etc.
- Seamless on grid/off grid switching time <10ms
- Support max 10 pcs in parallel mode, >6 pcs recommend Solis power distribution cabinet

## 8 Unique Features

- Usable PV power up to 200% inverter rated power, to improve the utilization of PV generation
- Supports max 20A PV input current, perfect match for high power PV modules
- Compatible with 100-280Ah battery modules
- Supports faster charging with battery current up to 140A
- Powerful backup overload capability – 160% overload
- Supports a wide power range of generator connections from 6kVA to 30kVA
- Supports 2 independent battery connections for flexible configuration
- 7-inch large screen uses U.S.-made ZEITLER industrial-grade components

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# DATASHEET

# S6-EH3P30K-H-LV

| Models                                         | 30K                                                                                                                                                                                                                                                                                         |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Input DC (PV side)</b>                      |                                                                                                                                                                                                                                                                                             |
| Recommended max. PV array size                 | 60 kW                                                                                                                                                                                                                                                                                       |
| Max. usable PV input power                     | 60 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                                                                                                                                                                                                                                                                          |
| Max. short circuit current                     | 60 A / 60 A / 60 A                                                                                                                                                                                                                                                                          |
| MPPT number / Max. input strings number        | 3 / 6                                                                                                                                                                                                                                                                                       |
| <b>Battery</b>                                 |                                                                                                                                                                                                                                                                                             |
| Battery type                                   | Li-ion                                                                                                                                                                                                                                                                                      |
| Battery voltage range                          | 150 - 800 V                                                                                                                                                                                                                                                                                 |
| Max. charge / discharge power                  | 33 kW                                                                                                                                                                                                                                                                                       |
| Max. charge / discharge current                | 70 A × 2 <sup>(1)</sup>                                                                                                                                                                                                                                                                     |
| Number of battery ports                        | 2                                                                                                                                                                                                                                                                                           |
| Max. charge / discharge power of each input    | 33 kW                                                                                                                                                                                                                                                                                       |
| Communication                                  | CAN / RS485                                                                                                                                                                                                                                                                                 |
| <b>Output AC (Grid side)</b>                   |                                                                                                                                                                                                                                                                                             |
| Rated output power                             | 30 kW                                                                                                                                                                                                                                                                                       |
| Max. apparent output power                     | 30 kVA                                                                                                                                                                                                                                                                                      |
| Rated grid voltage                             | 3/(N)/PE, 220 V, 230 V                                                                                                                                                                                                                                                                      |
| Rated grid frequency                           | 50 Hz / 60 Hz                                                                                                                                                                                                                                                                               |
| Rated grid output current                      | 78.7 A / 75.3 A                                                                                                                                                                                                                                                                             |
| Max. output current                            | 78.7 A / 75.3 A                                                                                                                                                                                                                                                                             |
| Power factor                                   | > 0.99 (0.8 leading - 0.8 lagging)                                                                                                                                                                                                                                                          |
| THDi                                           | < 3%                                                                                                                                                                                                                                                                                        |
| <b>Input AC (Grid side)</b>                    |                                                                                                                                                                                                                                                                                             |
| Max. AC passthrough current                    | 152 A / 152 A                                                                                                                                                                                                                                                                               |
| Rated input voltage                            | 3/(N)/PE, 220 V, 230 V                                                                                                                                                                                                                                                                      |
| Rated input frequency                          | 50 Hz / 60 Hz                                                                                                                                                                                                                                                                               |
| <b>Input Generator</b>                         |                                                                                                                                                                                                                                                                                             |
| Max. input power                               | 30 kW                                                                                                                                                                                                                                                                                       |
| Rated input current                            | 78.7 A / 75.3 A                                                                                                                                                                                                                                                                             |
| Rated input voltage                            | 3/(N)/PE, 220 V, 230 V                                                                                                                                                                                                                                                                      |
| Rated input frequency                          | 50 Hz / 60 Hz                                                                                                                                                                                                                                                                               |
| <b>Output AC (Back-up)</b>                     |                                                                                                                                                                                                                                                                                             |
| Rated output power                             | 30 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, 230 V                                                                                                                                                                                                                                                                      |
| Rated frequency                                | 50 Hz / 60 Hz                                                                                                                                                                                                                                                                               |
| Rated output current                           | 78.7 A / 75.3 A                                                                                                                                                                                                                                                                             |
| THDv (@linear load)                            | < 2%                                                                                                                                                                                                                                                                                        |
| <b>Efficiency</b>                              |                                                                                                                                                                                                                                                                                             |
| Max. efficiency                                | 96.3%                                                                                                                                                                                                                                                                                       |
| EU efficiency                                  | 95.5%                                                                                                                                                                                                                                                                                       |
| BAT charged by PV max. efficiency              | 97.4%                                                                                                                                                                                                                                                                                       |
| BAT charged / discharged to AC max. efficiency | 95.8%                                                                                                                                                                                                                                                                                       |
| <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.