



solis

20<sup>th</sup>  
ANNIVERSARY

# SOLARATOR SERIES

Experience Uninterrupted Power with Solis Energy Storage Inverters

**S6-EH3P(75-125)K10-NV-YD-H**

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 21A PV input current, perfect match for high power PV modules
- Compatible with 100-314Ah battery modules
- Supports faster charging with battery current up to 200A
- Powerful backup overload capability – 160% overload
- Supports a wide power range of generator connections from 25kVA to 125kVA
- 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-EH3P(75-125)K10-NV-YD-H

| Models                                          | 75K                                                                                                                                                                                                                                                                                                                                                                                                       | 80K               | 100K                   | 125K                                                                                                  |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------|-------------------------------------------------------------------------------------------------------|
| Input DC (PV side)                              |                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                        |                                                                                                       |
| Recommended max. PV array size                  | 150 kW                                                                                                                                                                                                                                                                                                                                                                                                    | 160 kW            | 200 kW                 | 240 kW                                                                                                |
| Max. usable PV input power                      | 150 kW                                                                                                                                                                                                                                                                                                                                                                                                    | 160 kW            | 200 kW                 | 240 kW                                                                                                |
| Max. input voltage                              | 1000 V                                                                                                                                                                                                                                                                                                                                                                                                    |                   |                        |                                                                                                       |
| Rated voltage                                   | 600 V                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                        |                                                                                                       |
| Start-up voltage                                | 180 V                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                        |                                                                                                       |
| MPPT voltage range                              | 150 - 950 V                                                                                                                                                                                                                                                                                                                                                                                               |                   |                        |                                                                                                       |
| Max. input current                              | 10 × 42 A                                                                                                                                                                                                                                                                                                                                                                                                 |                   |                        |                                                                                                       |
| Max. short circuit current                      | 10 × 60 A                                                                                                                                                                                                                                                                                                                                                                                                 |                   |                        |                                                                                                       |
| MPPT number / Max. input strings number         | 10 / 20                                                                                                                                                                                                                                                                                                                                                                                                   |                   |                        |                                                                                                       |
| Battery                                         |                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                        |                                                                                                       |
| Battery type                                    | Li-ion                                                                                                                                                                                                                                                                                                                                                                                                    |                   |                        |                                                                                                       |
| Battery voltage range                           | 300 - 950 V                                                                                                                                                                                                                                                                                                                                                                                               |                   |                        |                                                                                                       |
| Max.charge / discharge current                  | 200 A / 100 A + 100 A                                                                                                                                                                                                                                                                                                                                                                                     |                   |                        |                                                                                                       |
| Number of battery ports                         | 2                                                                                                                                                                                                                                                                                                                                                                                                         |                   |                        |                                                                                                       |
| Max. charge / discharge current of each port    | 100 A                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                        |                                                                                                       |
| Communication                                   | CAN / RS485                                                                                                                                                                                                                                                                                                                                                                                               |                   |                        |                                                                                                       |
| Output AC (Grid side)                           |                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                        |                                                                                                       |
| Rated output power                              | 75 kW                                                                                                                                                                                                                                                                                                                                                                                                     | 80 kW             | 100 kW                 | 125 kW                                                                                                |
| Max. apparent output power                      | 75 kVA                                                                                                                                                                                                                                                                                                                                                                                                    | 80 kVA            | 100 kVA                | 125 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                       | 114 A / 108.3 A                                                                                                                                                                                                                                                                                                                                                                                           | 121.6 A / 115.5 A | 152 A / 144.3 A        | 180.4 A / 189.9 A                                                                                     |
| Power factor                                    | > 0.99 (0.8 leading - 0.8 lagging)                                                                                                                                                                                                                                                                                                                                                                        |                   |                        |                                                                                                       |
| THDi                                            | < 3%                                                                                                                                                                                                                                                                                                                                                                                                      |                   |                        |                                                                                                       |
| Input AC (Grid side)                            |                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                        |                                                                                                       |
| Max. input current                              | 250 A                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                        |                                                                                                       |
| Output AC (Back-up)                             |                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                        |                                                                                                       |
| Rated output power                              | 75 kW                                                                                                                                                                                                                                                                                                                                                                                                     | 80 kW             | 100 kW                 | 125 kW                                                                                                |
| Max. apparent output power                      | 1.2 times of rated power, 10 mins; 1.4 times of rated power, 100 s;<br>1.6 times of rated power, 10 s; 2 times of rated power, 200 ms                                                                                                                                                                                                                                                                     |                   |                        | 1.2 times of rated power, 100 s<br>1.4 times of rated power, 10 s<br>1.6 times of rated power, 200 ms |
| 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                                                                                                                                                                                                                                                                                                                                                                                             |                   |                        |                                                                                                       |
| THDv (@linear load)                             | < 2%                                                                                                                                                                                                                                                                                                                                                                                                      |                   |                        |                                                                                                       |
| Efficiency                                      |                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                        |                                                                                                       |
| Max. efficiency                                 | 97.6%                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                        |                                                                                                       |
| EU efficiency                                   | 97.2%                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                        |                                                                                                       |
| BAT charged / discharged to AC max. efficiency  | 97.0%                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                        |                                                                                                       |
| 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                             | Yes                                                                                                                                                                                                                                                                                                                                                                                                       | Optional          | Optional (Brazil: Yes) |                                                                                                       |
| Protection class / Over voltage category        | I / II                                                                                                                                                                                                                                                                                                                                                                                                    |                   |                        |                                                                                                       |
| General Data                                    |                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                        |                                                                                                       |
| Max. allowable phase imbalance (grid & back-up) | 100%                                                                                                                                                                                                                                                                                                                                                                                                      |                   |                        |                                                                                                       |
| Max. power per phase (grid & back-up)           | 25.00 kW                                                                                                                                                                                                                                                                                                                                                                                                  | 26.66 kW          | 33.33 kW               | 41.66 kW                                                                                              |
| Dimensions (W × H × D)                          | 1174 × 814 × 400 mm                                                                                                                                                                                                                                                                                                                                                                                       |                   |                        |                                                                                                       |
| Weight                                          | 170 kg                                                                                                                                                                                                                                                                                                                                                                                                    |                   |                        |                                                                                                       |
| Topology                                        | Transformerless                                                                                                                                                                                                                                                                                                                                                                                           |                   |                        |                                                                                                       |
| Operating ambient temperature range             | -25 ~ +60°C                                                                                                                                                                                                                                                                                                                                                                                               |                   |                        |                                                                                                       |
| Ingress protection                              | IP66                                                                                                                                                                                                                                                                                                                                                                                                      |                   |                        |                                                                                                       |
| Cooling concept                                 | Intelligent fan-cooling                                                                                                                                                                                                                                                                                                                                                                                   |                   |                        |                                                                                                       |
| Max. operation altitude                         | 3000 m                                                                                                                                                                                                                                                                                                                                                                                                    |                   |                        |                                                                                                       |
| Grid connection standard                        | G99, VDE-AR-N 4105/VDE V 0124, EN 50549-1&2/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 N° 140, DE 21 DE MARÇO DE 2022;<br>Brazil (75K: ORDINANCE (PORTARIA) NO.140, ORDINANCE NO. 515; 100K/125K: NBR 16149, NBR 16150, IEC 62116) |                   |                        |                                                                                                       |
| 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, RS485-115200, Ethernet, Optional: Wi-Fi, Cellular, LAN                                                                                                                                                                                                                                                                                                                                               |                   |                        |                                                                                                       |