

**75-125K**

# SOLARATOR SERIES

Experience Uninterrupted Power with Solis Energy Storage Inverters

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

Three Phase | High Voltage



## 12 Unique Advantages

- ★ Supports up to 2x rated PV input, maximizing solar energy utilization
- ★ Supports a maximum string input current of 21A, ensuring compatibility with high-power PV modules
- ★ Compatible with 100-314Ah battery modules, reducing overall system costs
- ★ Supports fast battery charging with a maximum charging current of 200A
- ★ Two independent battery ports for flexible configurations and easy capacity expansion
- ★ Delivers 160% overload for 200ms in off-grid mode, ensuring stable startup of heavy loads
- ★ Offers flexible control for weak grid and genset-hybrid scenarios, reducing investment costs
- ★ SolisCloud: Smart remote control, AI optimisation, and instant troubleshooting - all in one platform
- ★ Integrates PV and storage for demand management and anti-reverse flow functions
- ★ Provides dynamic reactive power compensation to improve grid power factor and reduce reactive power charges
- ★ Utility bypass function allows direct grid supply to backup loads
- ★ Patented cooling technology ensures reliable operation even under high-temperature conditions

## 6 Leading Advantages

- Supports both DC and AC coupling, for flexible retrofits and system expansions
- Ensures reliable backup power across diverse scenarios through battery reserve management
- Extends supply time for critical loads with intelligent load prioritization
- Offers a versatile three-in-one interface for seamless integration of on-grid PV, wind power, and diesel generators
- Achieves on- and off-grid transitions in less than 10ms, ensuring an uninterrupted power supply
- Supports multi-unit parallel operation up to 1.25MW (Solis STS cabinet recommended for systems over 6 units)

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## DATASHEET

| Models                                       | 75K                                                                                                                                                                                                                                           | 80K                                                                                                                                                | 99.9K                                | 100K                | 125K                |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------------|---------------------|
| Input DC (PV side)                           |                                                                                                                                                                                                                                               |                                                                                                                                                    |                                      |                     |                     |
| Recommended max. PV array size               | 150 kW                                                                                                                                                                                                                                        | 160 kW                                                                                                                                             | 200 kW                               | 200 kW              | 250 kW              |
| Max. usable PV input power                   | 150 kW                                                                                                                                                                                                                                        | 160 kW                                                                                                                                             | 200 kW                               | 200 kW              | 250 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. current per DC input                    |                                                                                                                                                                                                                                               |                                                                                                                                                    | 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              |                                                                                                                                                                                                                                               |                                                                                                                                                    | 100 A × 2 / 100 A × 2                |                     |                     |
| Number of battery port / Number of BMS port  |                                                                                                                                                                                                                                               |                                                                                                                                                    | 2                                    |                     |                     |
| Max. charge / discharge current of each port |                                                                                                                                                                                                                                               |                                                                                                                                                    | 100 A                                |                     |                     |
| Communication                                |                                                                                                                                                                                                                                               |                                                                                                                                                    | CAN                                  |                     |                     |
| Output AC (Grid side)                        |                                                                                                                                                                                                                                               |                                                                                                                                                    |                                      |                     |                     |
| Rated output power                           | 75 kW                                                                                                                                                                                                                                         | 80 kW                                                                                                                                              | 99.9 kW                              | 100 kW              | 125 kW              |
| Max. apparent output power                   | 75 kVA                                                                                                                                                                                                                                        | 80 kVA                                                                                                                                             | 99.9 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                                                                                                                                                                                                                                         | 121.6 A / 115.5 A                                                                                                                                  | 151.8 A / 144.2 A                    | 151.9 A / 144.3 A   | 189.9 A / 180.4 A   |
| Power factor                                 |                                                                                                                                                                                                                                               |                                                                                                                                                    | > 0.99 (0.8 leading - 0.8 lagging)   |                     |                     |
| THDi                                         |                                                                                                                                                                                                                                               |                                                                                                                                                    | < 3%                                 |                     |                     |
| Input AC (Grid side)                         |                                                                                                                                                                                                                                               |                                                                                                                                                    |                                      |                     |                     |
| Max. input power                             | 150 kW                                                                                                                                                                                                                                        | 160 kW                                                                                                                                             | 164.5 kW / 173.2 kW                  | 164.5 kW / 173.2 kW | 164.5 kW / 173.2 kW |
| Input voltage range                          | 304 - 437 V                                                                                                                                                                                                                                   |                                                                                                                                                    | 304 - 460 V                          |                     |                     |
| Max. input current                           |                                                                                                                                                                                                                                               |                                                                                                                                                    | 250 A                                |                     |                     |
| Output AC (Back-up)                          |                                                                                                                                                                                                                                               |                                                                                                                                                    |                                      |                     |                     |
| Rated output power                           | 75 kW                                                                                                                                                                                                                                         | 80 kW                                                                                                                                              | 99.9 kW                              | 100 kW              | 125 kW              |
| Max. apparent output power                   |                                                                                                                                                                                                                                               | 75-100K: 1.6 times of rated power, 10 s; 2 times of rated power, 200 ms;<br>125K: 1.4 times of rated power, 10 s; 1.6 times of rated power, 200 ms |                                      |                     |                     |
| Back-up switch time ①                        |                                                                                                                                                                                                                                               |                                                                                                                                                    | < 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                         | 114.0 A                                                                                                                                                                                                                                       | 121.6 A / 115.5 A                                                                                                                                  | 151.8 A / 144.2 A                    | 151.9 A / 144.3 A   | 189.9 A / 180.4 A   |
| Max. AC passthrough current                  | 114.0 A                                                                                                                                                                                                                                       | 121.6 A / 115.5 A                                                                                                                                  | 151.8 A / 144.2 A                    | 151.9 A / 144.3 A   | 189.9 A / 180.4 A   |
| THDv (@linear load)                          |                                                                                                                                                                                                                                               |                                                                                                                                                    | < 3%                                 |                     |                     |
| Input AC (Generator side)                    |                                                                                                                                                                                                                                               |                                                                                                                                                    |                                      |                     |                     |
| Max. input power                             | 75 kW                                                                                                                                                                                                                                         | 80 kW                                                                                                                                              | 99.9 kW                              | 100 kW              | 125 kW              |
| Rated input current                          | 114.0 A                                                                                                                                                                                                                                       | 121.6 A / 115.5 A                                                                                                                                  | 151.8 A / 144.2 A                    | 151.9 A / 144.3 A   | 189.9 A / 180.4 A   |
| Rated input voltage                          |                                                                                                                                                                                                                                               |                                                                                                                                                    | 3/N/PE, 220 V / 380 V, 230 V / 400 V |                     |                     |
| Rated input frequency                        |                                                                                                                                                                                                                                               |                                                                                                                                                    | 50 Hz / 60 Hz                        |                     |                     |
| Efficiency                                   |                                                                                                                                                                                                                                               |                                                                                                                                                    |                                      |                     |                     |
| Max. efficiency                              |                                                                                                                                                                                                                                               |                                                                                                                                                    | 97.5%                                |                     |                     |
| EU efficiency                                | 96.9%                                                                                                                                                                                                                                         | 96.9%                                                                                                                                              | 97.1%                                | 97.1%               | 97.2%               |
| BAT charged by PV / AC max. efficiency       |                                                                                                                                                                                                                                               |                                                                                                                                                    | 98.2% /97.0%                         |                     |                     |
| Battery discharged efficiency                |                                                                                                                                                                                                                                               |                                                                                                                                                    | 97.0%                                |                     |                     |
| Protection                                   |                                                                                                                                                                                                                                               |                                                                                                                                                    |                                      |                     |                     |
| Surge protection                             |                                                                                                                                                                                                                                               |                                                                                                                                                    | DC Type II / AC Type II              |                     |                     |
| Output over current protection               |                                                                                                                                                                                                                                               |                                                                                                                                                    | Yes                                  |                     |                     |
| Insulation resistance monitoring             |                                                                                                                                                                                                                                               |                                                                                                                                                    | Yes                                  |                     |                     |
| Residual current detection                   |                                                                                                                                                                                                                                               |                                                                                                                                                    | Yes                                  |                     |                     |
| Integrated PV switch                         |                                                                                                                                                                                                                                               |                                                                                                                                                    | Yes                                  |                     |                     |
| DC reverse-polarity protection               |                                                                                                                                                                                                                                               |                                                                                                                                                    | Yes                                  |                     |                     |
| Protection class / Over voltage category     |                                                                                                                                                                                                                                               |                                                                                                                                                    | I/ DC II, AC III                     |                     |                     |
| Integrated AFCI 2.0                          |                                                                                                                                                                                                                                               |                                                                                                                                                    | Optional (Brazil: Yes)               |                     |                     |
| Anti-islanding protection                    |                                                                                                                                                                                                                                               |                                                                                                                                                    | Yes                                  |                     |                     |
| General Data                                 |                                                                                                                                                                                                                                               |                                                                                                                                                    |                                      |                     |                     |
| Max. power per phase (grid & back-up)        |                                                                                                                                                                                                                                               |                                                                                                                                                    | 33% rated power                      |                     |                     |
| Dimensions (W × H × D)                       |                                                                                                                                                                                                                                               |                                                                                                                                                    | 1174 × 814 × 400 mm                  |                     |                     |
| Weight                                       |                                                                                                                                                                                                                                               |                                                                                                                                                    | 170 kg                               |                     |                     |
| Inverter topology                            |                                                                                                                                                                                                                                               |                                                                                                                                                    | Non-isolated                         |                     |                     |
| Self-consumption                             |                                                                                                                                                                                                                                               |                                                                                                                                                    | < 45 W                               |                     |                     |
| Operating temperature range                  |                                                                                                                                                                                                                                               |                                                                                                                                                    | -25 ~ +60°C                          |                     |                     |
| Relative humidity                            |                                                                                                                                                                                                                                               |                                                                                                                                                    | 0 - 100%                             |                     |                     |
| Ingress protection                           |                                                                                                                                                                                                                                               |                                                                                                                                                    | IP66                                 |                     |                     |
| Cooling concept                              |                                                                                                                                                                                                                                               |                                                                                                                                                    | Intelligent redundant fan-cooling    |                     |                     |
| Max. operation altitude                      |                                                                                                                                                                                                                                               |                                                                                                                                                    | 3000 m                               |                     |                     |
| Grid connection standard ②                   | G99, VDE-AR-N 4105/VDE V 0124, EN 50549-1&2/EN 50549-10, VDE 0126/UTE C 15/VFR:2019, NTS 631/UNE 217001, CEI 0-21, C10/11, NRS 097-2-1, TOR, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA, PORTARIA N° 140, PORTARIA N° 515 |                                                                                                                                                    |                                      |                     |                     |
| Safety / EMC standard                        | IEC/EN 62109-1/-2, IEC/EN 61000-6-2/-4, EN 55011                                                                                                                                                                                              |                                                                                                                                                    |                                      |                     |                     |
| Features                                     |                                                                                                                                                                                                                                               |                                                                                                                                                    |                                      |                     |                     |
| PV connection                                |                                                                                                                                                                                                                                               |                                                                                                                                                    | MC4 connector                        |                     |                     |
| Battery connection                           |                                                                                                                                                                                                                                               |                                                                                                                                                    | Terminal connector                   |                     |                     |
| AC connection                                |                                                                                                                                                                                                                                               |                                                                                                                                                    | Terminal block                       |                     |                     |
| Display                                      |                                                                                                                                                                                                                                               |                                                                                                                                                    | 7.0" LCD display & Bluetooth + APP   |                     |                     |
| Communication interface                      | Standard: WIFI+LAN+Bluetooth. CAN-BMS×2. CAN-Parallel×2. LAN. RS485-Meter. RS485. DRM. DI×5. DO×4: Optional: 4G                                                                                                                               |                                                                                                                                                    |                                      |                     |                     |

① From On-Grid Mode to Off-Grid Mode: For a single inverter system, switchover time <10ms. For a parallel system which consists of up to 6 inverters, switchover time <20ms. If customer wishes to connect more than 6 inverters in parallel, please contact Solis Technical Team.

② This column only shows the planned certification standards. Please confirm the specific time of obtaining the standards with the local team.