

**100-150K**

# SOLARATOR SERIES

Operates Seamlessly with Generator: Experience Uninterrupted Power, Even in Areas with Grid Instability

**S6-EH3P(100-150)K10-NV-YD-H-US**

Three Phase | High Voltage



## 12 Unique Advantages

- ★ Supports PV input up to 250kW, maximising solar utilisation
- ★ 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 1.5MW (external ATS recommended for systems over 6 units)

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## DATASHEET

| Models                                       | 100K                                                                                                                                                                                                                                                                  | 125K                                                                | 150K                                                                |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|
| Input DC (PV side)                           |                                                                                                                                                                                                                                                                       |                                                                     |                                                                     |
| Recommended max. PV array size               | 200 kW                                                                                                                                                                                                                                                                | 250 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 × 65 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                                                           |                                                                     |
| 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                           | 100 kW                                                                                                                                                                                                                                                                | 125 kW                                                              | 150 kW                                                              |
| Max. apparent output power                   | 100 kVA                                                                                                                                                                                                                                                               | 125 kVA                                                             | 150 kVA                                                             |
| Rated grid voltage                           |                                                                                                                                                                                                                                                                       | 3/(N)/PE, 277 V / 480 V                                             |                                                                     |
| Rated grid frequency                         |                                                                                                                                                                                                                                                                       | 60 Hz                                                               |                                                                     |
| Rated grid output current                    | 120.3 A                                                                                                                                                                                                                                                               | 150.4 A                                                             | 180.4 A                                                             |
| Power factor                                 |                                                                                                                                                                                                                                                                       | > 0.99 (0.8 leading - 0.8 lagging)                                  |                                                                     |
| THDi                                         |                                                                                                                                                                                                                                                                       | < 3%                                                                |                                                                     |
| Input AC (Grid side)                         |                                                                                                                                                                                                                                                                       |                                                                     |                                                                     |
| Max. input power                             | 200 kW                                                                                                                                                                                                                                                                | 207.8 kW                                                            | 207.8 kW                                                            |
| Input voltage range                          |                                                                                                                                                                                                                                                                       | 384 - 552 V                                                         |                                                                     |
| Max. input current                           |                                                                                                                                                                                                                                                                       | 250 A                                                               |                                                                     |
| Output AC (Back-up)                          |                                                                                                                                                                                                                                                                       |                                                                     |                                                                     |
| Rated output power                           | 100 kW                                                                                                                                                                                                                                                                | 125 kW                                                              | 150 kW                                                              |
| Max. apparent output power                   | 1.6 times of rated power, 10 s;<br>2 times of rated power, 200 ms                                                                                                                                                                                                     | 1.6 times of rated power, 10 s;<br>1.8 times of rated power, 200 ms | 1.4 times of rated power, 10 s;<br>1.6 times of rated power, 200 ms |
| Back-up switch time <sup>①</sup>             |                                                                                                                                                                                                                                                                       | < 10 ms                                                             |                                                                     |
| Rated output voltage                         |                                                                                                                                                                                                                                                                       | 3/(N)/PE, 277 V / 480 V                                             |                                                                     |
| Rated frequency                              |                                                                                                                                                                                                                                                                       | 60 Hz                                                               |                                                                     |
| Rated output current                         | 120.3 A                                                                                                                                                                                                                                                               | 150.4 A                                                             | 180.4 A                                                             |
| Max. AC passthrough current                  | 120.3 A                                                                                                                                                                                                                                                               | 150.4 A                                                             | 180.4 A                                                             |
| THDv (@linear load)                          |                                                                                                                                                                                                                                                                       | < 3%                                                                |                                                                     |
| Input AC (Generator side)                    |                                                                                                                                                                                                                                                                       |                                                                     |                                                                     |
| Max. input power                             | 100 kW                                                                                                                                                                                                                                                                | 125 kW                                                              | 150 kW                                                              |
| Rated input current                          | 120.3 A                                                                                                                                                                                                                                                               | 150.4 A                                                             | 180.4 A                                                             |
| Rated input voltage                          |                                                                                                                                                                                                                                                                       | 3/(N)/PE, 277 V / 480 V                                             |                                                                     |
| Rated input frequency                        |                                                                                                                                                                                                                                                                       | 60 Hz                                                               |                                                                     |
| Efficiency                                   |                                                                                                                                                                                                                                                                       |                                                                     |                                                                     |
| Max. efficiency                              |                                                                                                                                                                                                                                                                       | 97.6%                                                               |                                                                     |
| CEC efficiency                               |                                                                                                                                                                                                                                                                       | 97.2%                                                               |                                                                     |
| BAT charged by PV / AC max. efficiency       |                                                                                                                                                                                                                                                                       | 98.5% / 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                          |                                                                                                                                                                                                                                                                       | Yes                                                                 |                                                                     |
| Anti-islanding protection                    |                                                                                                                                                                                                                                                                       | Yes                                                                 |                                                                     |
| Rapid shutdown NEC 2017                      |                                                                                                                                                                                                                                                                       | Integrated SunSpec-certified Transmitter                            |                                                                     |
| Compatible RSD receivers                     |                                                                                                                                                                                                                                                                       | See MLRSD Compatibility Sheet                                       |                                                                     |
| General Data                                 |                                                                                                                                                                                                                                                                       |                                                                     |                                                                     |
| Max. power per phase (grid & back-up)        |                                                                                                                                                                                                                                                                       | 33% rated power                                                     |                                                                     |
| Dimensions (W × H × D)                       |                                                                                                                                                                                                                                                                       | 50.47 × 33.94 × 18.43 in (1282 × 862 × 468 mm)                      |                                                                     |
| Weight                                       |                                                                                                                                                                                                                                                                       | 374.79 lbs (170 kg)                                                 |                                                                     |
| Inverter topology                            |                                                                                                                                                                                                                                                                       | Non-isolated                                                        |                                                                     |
| Self-consumption                             |                                                                                                                                                                                                                                                                       | < 45 W                                                              |                                                                     |
| Operating temperature range                  |                                                                                                                                                                                                                                                                       | -13°F to 140°F (-25°C to 60°C)                                      |                                                                     |
| Relative humidity                            |                                                                                                                                                                                                                                                                       | 0 - 100%                                                            |                                                                     |
| Ingress protection                           |                                                                                                                                                                                                                                                                       | TYPE 4X (IP66)                                                      |                                                                     |
| Cooling concept                              |                                                                                                                                                                                                                                                                       | Intelligent redundant fan-cooling                                   |                                                                     |
| Max. operation altitude                      |                                                                                                                                                                                                                                                                       | 3000 m                                                              |                                                                     |
| Compliance <sup>②</sup>                      | UL Std. No.1741-Third Edition, UL1741 Supplement B and California Rule21 Phase 1&2&3, UL 1699B & CSA C22.2 No.107.1-16&IEEE 1547-2018, IEEE 1547a-2020 and IEEE 1547.1-2020. UL 1998, FCCPart15ClassB, HECO Rule 14H, NEC 690.12-2025, Hawaiian Electric Co.SRD-V2.0. |                                                                     |                                                                     |
| Features                                     |                                                                                                                                                                                                                                                                       |                                                                     |                                                                     |
| PV connection                                |                                                                                                                                                                                                                                                                       | MC4 connector                                                       |                                                                     |
| Battery connection                           |                                                                                                                                                                                                                                                                       | Spring clamp terminals                                              |                                                                     |
| AC connection                                |                                                                                                                                                                                                                                                                       | Screw type terminal block                                           |                                                                     |
| Interface                                    |                                                                                                                                                                                                                                                                       | 7.0" LCD display & Bluetooth + APP                                  |                                                                     |
| Monitoring platform                          |                                                                                                                                                                                                                                                                       | SolisCloud (modbus map and API sharing available upon request)      |                                                                     |
| 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.