
30-60K

# SOLARATOR SERIES

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

## S6-EH3P(30-60)K-NV-YD-H-US(21A)

Three Phase | High Voltage

## 10 Unique Advantages

- ★ Supports PV input up to 100kW, 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 168A
- ★ Two independent battery ports for flexible configurations and easy capacity expansion
- ★ Delivers 160% overload for 2s 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

## 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 600kW (Solis STS cabinet recommended for systems over 6 units)

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# DATASHEET

| Models | 30K03 | 40K04 | 50K04 | 60K04 |
|---|---|---|---|---|
| **Input DC (PV side)** | | | | |
| Recommended max. PV array size | 60 kW | 80 kW | 100 kW | 100 kW |
| Max. input voltage | 1000 V | | | |
| Rated voltage | 600 V | | | |
| Start-up voltage | 180 V | | | |
| MPPT voltage range | 150 - 850 V | | | |
| Max. input current | 3 × 42 A | 4 × 42 A | | |
| Max. current per DC input | 42 A | | | |
| Max. short circuit current | 3 × 65 A | 4 × 65 A | | |
| MPPT number / Max. input strings number | 3 / 6 | 4 / 8 | | |
| **Battery** | | | | |
| Battery type | Li-ion | | | |
| Battery voltage range | 150 - 800 V | | | |
| Max. charge / discharge current | 80 A × 2 | | | 84 A × 2 |
| Number of battery port / Number of BMS port | 2 | | | |
| Max. charge / discharge current of each port | 80 A | | | 84 A |
| Communication | CAN / RS485 | | | |
| **Output AC (Grid side)** | | | | |
| Rated output power | 30 kW | 40 kW | 50 kW | 60 kW |
| Max. apparent output power | 30 kVA | 40 kVA | 50 kVA | 60 kVA |
| Rated grid voltage | 3/(N)/PE, 277 V / 480 V | | | |
| Rated grid frequency | 60 Hz | | | |
| Rated grid output current | 36.1 A | 48.1 A | 60.1 A | 72.2 A |
| Power factor | > 0.99 (0.8 leading - 0.8 lagging) | | | |
| THDi | < 3% | | | |
| **Input AC (Grid side)** | | | | |
| Max. input power | 60 kW | 80 kW | 100 kW | 120 kW |
| Input voltage range | 384 - 552 V | | | |
| Max. input current | 72.2 A | 96.2 A | 120.2 A | 144.4 A |
| **Output AC (Back-up)** | | | | |
| Rated output power | 30 kW | 40 kW | 50 kW | 60 kW |
| Max. apparent output power | 1.6 times of rated power with 2 s | | | |
| Back-up switch time ① | < 10 ms | | | |
| Rated output voltage | 3/(N)/PE, 277 V / 480 V | | | |
| Rated frequency | 60 Hz | | | |
| Rated output current | 36.1 A | 48.1 A | 60.1 A | 72.2 A |
| Max. AC passthrough current | 72.2A | | | |
| THDv (@linear load) | < 2% | | | |
| **Input AC (Generator side)** | | | | |
| Max. input power | 30 kW | 40 kW | 50 kW | 60 kW |
| Rated input current | 36.1 A | 48.1 A | 60.1 A | 72.2 A |
| Rated input voltage | 3/(N)/PE, 277 V / 480 V | | | |
| Rated input frequency | 60 Hz | | | |
| **Efficiency** | | | | |
| Max. efficiency | 97.30% | 97.24% | 97.38% | 97.49% |
| CEC efficiency | 96.62% | 96.84% | 97.23% | 97.27% |
| BAT charged by PV / AC max. efficiency | 98.6% / 97.8% | | | |
| Battery discharged efficiency | 97.8% | | | |
| **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) | 22.05 × 41.34 × 13.64 in (560 × 1050 × 346.5 mm) | | | |
| Weight | 195.77 lbs (88.8 kg) | | | |
| Inverter topology | Transformerless | | | |
| Self-consumption | < 35 W | | | |
| Operating temperature range | -13°F to 140°F (-25°C to 60°C) | | | |
| Relative humidity | 0 - 100% | | | |
| Ingress protection | TYPE 4X | | | |
| Cooling concept | Intelligent redundant fan-cooling | | | |
| Max. operation altitude | 9842,52 ft (3000 m) | | | |
| Compliance ② | UL1741SB, IEEE1547-2018, UL1699B, UL1998, FCCPart15 lassB, California Rule21, Hawaii Rule 14H, NEC 690.12-2020, CAN/CSA C22.2107.1-1 | | | |
| **Features** | | | | |
| PV connection | MC4 connector | | | |
| Battery connection | Spring clamp terminals | | | |
| AC connection | Screw type terminal block | | | |
| Display | 7.0" LCD display & Bluetooth + APP | | | |
| Monitoring platform | SolisCloud (modbus map and API sharing available upon request) | | | |
| Revenue grade meter | Integrated ANSI C12.20 option | | | |
| Communication interface | Standard: WIFI+LAN+Bluetooth, CAN-BMS×2, CAN-Parallel×2, RS485-Meter, RS485, DRM, DI×3, DO×3; 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.