

## S6-EH3P(8-12)K-LV-ND-H

# Solis Three Phase High Voltage Energy Storage Inverters

Applicable only to Nordic countries

### Features:

- Generator-compatible to extend backup duration during grid power outage
- Supports dual backup ports for intelligent control of critical and non-critical loads
- SG heat pump compatibility
- Supports a maximum input current of 20A, making it ideal for all high-power PV modules of any brand
- Supports AC voltage detection of grid and generator output to prevent damage to generators from reverse current from the grid
- Supports peak shaving features
- Supports Unbalanced and Half-Wave Loads on both the Grid and Backup Port

### Models:

S6-EH3P8K-LV-ND-H

S6-EH3P10K-LV-ND-H

S6-EH3P12K-LV-ND-H



# DATASHEET

## S6-EH3P(8-12)K-LV-ND-H

| Models  | 8K                           | 10K  | 12K                            |
|---|------------------------------|--|--------------------------------|
| <b>Input DC (PV side)</b>                       |                              |  |                                |
| Recommended max. PV array size                  | 16 kW                        | 20 kW  | 24 kW                          |
| Max. usable PV input power                      | 12.8 kW                      | 16 kW  | 19.2 kW                        |
| Max. input voltage                              |                              | 1000 V   |                                |
| Rated voltage                                   |                              | 600 V  |                                |
| Start-up voltage                                |                              | 160 V  |                                |
| MPPT voltage range                              |                              | 200 - 850 V  |                                |
| Max. input current                              |                              | 4 × 16 A   | 4 × 20 A                       |
| Max. short circuit current                      |                              | 4 × 24 A   | 4 × 30 A                       |
| MPPT number / Max. input strings number         |                              | 4 / 4  |                                |
| <b>Battery</b>                                  |                              |  |                                |
| Battery type                                    |                              | Li-ion   |                                |
| Battery voltage range                           |                              | 120 - 800 V  |                                |
| Max. charge / discharge power                   | 8 kW                         | 10 kW  | 12 kW                          |
| Max. charge / discharge current                 |                              | 50 A   |                                |
| Communication                                   |                              | CAN / RS485  |                                |
| <b>Output AC (Grid side)</b>                    |                              |  |                                |
| Rated output power                              | 8 kW                         | 10 kW  | 12 kW                          |
| Max. apparent output power                      | 8 kVA                        | 10 kVA   | 12 kVA                         |
| Rated grid voltage                              |                              | 3/(N)/PE, 127 V / 220 V, 133 V / 230 V               |                                |
| Rated grid frequency                            |                              | 50 Hz / 60 Hz  |                                |
| Rated grid output current                       | 20.1 A                       | 25.1 A   | 30.1 A                         |
| Max. output current                             | 20.1 A                       | 25.1 A   | 30.1 A                         |
| Power factor                                    |                              | > 0.99 (0.8 leading - 0.8 lagging)                   |                                |
| THDi  |                              | < 3%   |                                |
| <b>Input AC (Grid side)</b>                     |                              |  |                                |
| Input voltage range                             |                              | 176 - 253 V / 184 - 265 V                            |                                |
| Max. input current                              | 30.1 A                       | 37.7 A   | 45.2 A                         |
| Rated grid frequency                            |                              | 50 Hz / 60 Hz  |                                |
| Frequency range                                 |                              | 45 - 55 Hz / 55 - 65 Hz                              |                                |
| <b>Input Generator</b>                          |                              |  |                                |
| Max. input power                                | 8 kW                         | 10 kW  | 12 kW                          |
| Max. input current                              | 20.1 A                       | 25.1 A   | 30.1 A                         |
| Rated input frequency                           |                              | 50 Hz / 60 Hz  |                                |
| <b>Output AC (Back-up)</b>                      |                              |  |                                |
| Rated output power                              | 8 kW                         | 10 kW  | 12 kW                          |
| Max. apparent output power                      | 2 times of rated power, 10 s |  | 1.6 times of rated power, 10 s |
| Back-up switch time                             |                              | < 10 ms  |                                |
| Rated output voltage                            |                              | 3/(N)/PE, 127 V / 220 V, 133 V / 230 V               |                                |
| Rated frequency                                 |                              | 50 Hz / 60 Hz  |                                |
| Rated output current                            | 20.1 A                       | 25.1 A   | 30.1 A                         |
| THDv (@linear load)                             |                              | < 2%   |                                |
| <b>Efficiency</b>                               |                              |  |                                |
| Max. efficiency                                 |                              | 96.70%   |                                |
| EU efficiency                                   |                              | 96.39%   |                                |
| BAT charged by PV max. efficiency               |                              | 96.23%   |                                |
| BAT charged / discharged to AC max. efficiency  |                              | 96.43%   |                                |
| <b>Protection</b>                               |                              |  |                                |
| Anti-islanding protection                       |                              | Yes  |                                |
| Output over current protection                  |                              | Yes  |                                |
| Short circuit protection                        |                              | Yes  |                                |
| Integrated AFCI 2.0                             |                              | Optional   |                                |
| Integrated DC switch                            |                              | Yes  |                                |
| DC reverse-polarity protection                  |                              | Yes  |                                |
| PV over voltage protection                      |                              | Yes  |                                |
| Battery reverse protection                      |                              | Yes  |                                |
| <b>General Data</b>                             |                              |  |                                |
| Max. allowable phase imbalance (grid & back-up) |                              | 100%   |                                |
| Max. power per phase (grid & back-up)           | 50% rated power              |  | 40% rated power                |
| Dimensions (W × H × D)                          |                              | 563 × 546 × 235 mm                                   |                                |
| Weight  |                              | 32.6 kg  |                                |
| Topology  |                              | Transformerless                                      |                                |
| Self-consumption (night)                        |                              | < 25 W   |                                |
| Operating ambient temperature range             |                              | -25 ~ +60°C  |                                |
| Relative humidity                               |                              | 0 - 95%  |                                |
| Ingress protection                              |                              | IP66   |                                |
| Noise emission (typical)                        |                              | < 65 dB(A)   |                                |
| Cooling concept                                 |                              | Intelligent fan-cooling                              |                                |
| Max. operation altitude                         |                              | 2000 m   |                                |
| Grid connection standard                        |                              | EN 50549-1/-10, VDE4105, REN342                      |                                |
| Safety / EMC standard                           |                              | IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-2/-3/-4         |                                |
| <b>Features</b>                                 |                              |  |                                |
| PV connection                                   |                              | MC4 connector  |                                |
| Battery connection                              |                              | OT terminal  |                                |
| AC connection                                   |                              | OT terminal  |                                |
| Display   |                              | LED indicator & Bluetooth + APP                      |                                |
| Communication                                   |                              | CAN, RS485, Ethernet, Optional: Wi-Fi, Cellular, LAN |                                |