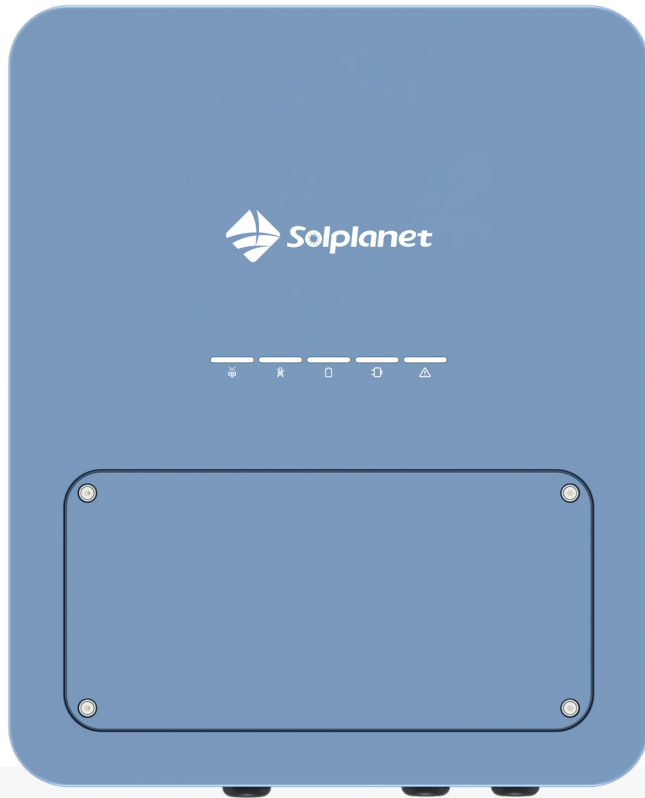


# ASW SH Series



## Models:

ASW002K-SH-EU  
ASW2.50K-SH-EU  
ASW003K-SH-EU  
ASW3.68K-SH-EU  
ASW004K-SH-EU  
ASW005K-SH-EU  
ASW006K-SH-EU



### Optimal performance

- 2 independent MPPTs for flexible and optimized large PV array design
- Max. 20 A input current per MPPT, ideal for bifacial and large area PV modules
- Up to 200% PV array oversizing for higher energy yields
- ShadeSol shadow management



### Safe & Reliable

- UPS-level seamless switch
- IP66 rated design for indoor and outdoor use
- Up to 200% for 10 seconds during power outages
- Multi-source design for black start, integrating PV, battery, and generator



### User-Friendly

- Replaceable SPD module for easier maintenance
- Dynamic tariff to unlock savings
- Modbus TCP/IP unites inverters for smart energy control
- Smart setup, commissioning and monitoring via Solplanet's App; one-click OTA update
- Expandable up to 18 kW in on-grid and off-grid mode

# Technical Datasheet

ASW002K-SH-EU ASW2.50K-SH-EU ASW003K-SH-EU ASW3.68K-SH-EU ASW004K-SH-EU ASW005K-SH-EU ASW006K-SH-EU

|                                                      |                                                           |                                                                                                          |                           |                 |                 |                 |                 |                 |
|------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| PV input                                             | Max. PV array power                                       | 4000 Wp                                                                                                  | 5000 Wp                   | 6000 Wp         | 7360 Wp         | 8000 Wp         | 10000 Wp        | 12000 Wp        |
|                                                      | Max. input power (PV1 / PV2)                              | 2000 W / 2000 W                                                                                          | 2500 W / 2500 W           | 3000 W / 3000 W | 3680 W / 3680 W | 4000 W / 4000 W | 5000 W / 5000 W | 6000 W / 6000 W |
|                                                      | Max. input voltage                                        | 550 V                                                                                                    |                           |                 |                 |                 |                 |                 |
|                                                      | MPP voltage range / rated input voltage                   | 40 V - 550 V / 380 V                                                                                     |                           |                 |                 |                 |                 |                 |
|                                                      | Min. input voltage / start voltage                        | 40 V / 50 V                                                                                              |                           |                 |                 |                 |                 |                 |
|                                                      | No. of independent MPPT trackers / strings per MPPT input | 2 / 1                                                                                                    |                           |                 |                 |                 |                 |                 |
|                                                      | Max. input current                                        | 20 A                                                                                                     |                           |                 |                 |                 |                 |                 |
|                                                      | Max. short-circuit current per MPP tracker                | 25 A                                                                                                     |                           |                 |                 |                 |                 |                 |
| Battery input                                        | Battery voltage range                                     | 40 V - 60 V                                                                                              |                           |                 |                 |                 |                 |                 |
|                                                      | Max. charge / discharge power                             | 2000 W / 2000 W                                                                                          | 2500 W / 2500 W           | 3000 W / 3000 W | 3680 W / 3680 W | 4000 W / 4000 W | 5000 W / 5000 W | 6000 W / 6000 W |
|                                                      | Max. charge / discharge current                           | 50 A / 50 A                                                                                              | 62.5 A / 62.5 A           | 75 A / 75 A     | 90 A / 90 A     | 100 A / 100 A   | 120 A / 120 A   | 135 A / 135 A   |
|                                                      | Cell type                                                 | LiFePO4 / Lead-acid                                                                                      |                           |                 |                 |                 |                 |                 |
| Grid port                                            | Max. input power from grid <sup>1</sup>                   | 4000 W                                                                                                   | 5000 W                    | 6000 W          | 7200 W          | 7200 W          | 9000 W          | 9600 W          |
|                                                      | Max. input current from grid                              | 17.3 A                                                                                                   | 21.7 A                    | 26.1 A          | 31.3 A          | 31.3 A          | 39.1 A          | 41.7 A          |
|                                                      | Rated grid voltage                                        | 220 V / 230 V / 240 V L/N                                                                                |                           |                 |                 |                 |                 |                 |
|                                                      | AC voltage range                                          | 154 V - 276 V                                                                                            |                           |                 |                 |                 |                 |                 |
|                                                      | Rated AC grid frequency                                   | 50 Hz / 60 Hz                                                                                            |                           |                 |                 |                 |                 |                 |
|                                                      | AC grid frequency range                                   | 45 Hz - 55 Hz / 55 Hz - 65 Hz                                                                            |                           |                 |                 |                 |                 |                 |
|                                                      | Rated output apparent power                               | 2000 VA                                                                                                  | 2500 VA                   | 3000 VA         | 3680 VA         | 4000 VA         | 5000 VA         | 6000 VA         |
|                                                      | Max. output apparent power                                | 2000 VA                                                                                                  | 2500 VA                   | 3000 VA         | 3680 VA         | 4000 VA         | 5000 VA         | 6000 VA         |
|                                                      | Rated grid output current (@230 V)                        | 8.7 A                                                                                                    | 10.9 A                    | 13.0 A          | 16.0 A          | 17.4 A          | 21.7 A          | 26.1 A          |
|                                                      | Max. grid output current (@230 V)                         | 9.5 A                                                                                                    | 11.9 A                    | 14.3 A          | 17.6 A          | 19.1 A          | 23.9 A          | 28.7 A          |
|                                                      | Harmonics THDi                                            | < 3 % (of nominal power)                                                                                 |                           |                 |                 |                 |                 |                 |
|                                                      | EPS port                                                  | Nominal output voltage                                                                                   | 220 V / 230 V / 240 V L/N |                 |                 |                 |                 |                 |
| Nominal output frequency                             |                                                           | 50 Hz / 60 Hz                                                                                            |                           |                 |                 |                 |                 |                 |
| Rated apparent power                                 |                                                           | 2000 VA                                                                                                  | 2500 VA                   | 3000 VA         | 3680 VA         | 4000 VA         | 5000 VA         | 6000 VA         |
| Peak output apparent power (off-grid up to 10s)      |                                                           | 200 %, 10 s                                                                                              |                           |                 |                 |                 |                 |                 |
| Rated current (@230 V)                               |                                                           | 8.7 A                                                                                                    | 10.9 A                    | 13.0 A          | 16.0 A          | 17.4 A          | 21.7 A          | 26.1 A          |
| Max. current (@230 V, continuous on-grid / off-grid) |                                                           | 9.5 A                                                                                                    | 11.9 A                    | 14.3 A          | 17.6 A          | 19.1 A          | 23.9 A          | 28.7 A          |
| Max. switch time                                     |                                                           | < 10 ms                                                                                                  |                           |                 |                 |                 |                 |                 |
| Output THDv (@ Linear load)                          |                                                           | 2 %                                                                                                      |                           |                 |                 |                 |                 |                 |
| Generator side                                       | Max. intput apparent power                                | 2200 VA                                                                                                  | 2750 VA                   | 3300 VA         | 4048 VA         | 4400 VA         | 5500 VA         | 6000 VA         |
|                                                      | Max. input current                                        | 9.5 A                                                                                                    | 11.9 A                    | 14.3 A          | 17.6 A          | 19.1 A          | 23.9 A          | 28.7 A          |
|                                                      | Rated AC voltage                                          | 220 V / 230 V / 240 V L/N                                                                                |                           |                 |                 |                 |                 |                 |
|                                                      | Rated AC frequency                                        | 50 Hz / 60 Hz                                                                                            |                           |                 |                 |                 |                 |                 |
| Effi-<br>ciency                                      | MPPT efficiency                                           | 99.9 %                                                                                                   |                           |                 |                 |                 |                 |                 |
|                                                      | European efficiency / Max. efficiency                     | 97.0 % / 97.6 %                                                                                          |                           |                 |                 |                 |                 |                 |
| Safety protection                                    | Surge protection                                          | ● / Type II                                                                                              |                           |                 |                 |                 |                 |                 |
|                                                      | Insulation resistance detection                           | ●                                                                                                        |                           |                 |                 |                 |                 |                 |
|                                                      | PV string input reverse polarity protection               | ●                                                                                                        |                           |                 |                 |                 |                 |                 |
|                                                      | Ground fault monitoring                                   | ●                                                                                                        |                           |                 |                 |                 |                 |                 |
|                                                      | Residual current monitoring unit                          | ●                                                                                                        |                           |                 |                 |                 |                 |                 |
|                                                      | AC short-circuit protection                               | ●                                                                                                        |                           |                 |                 |                 |                 |                 |
|                                                      | AC over-current protection                                | ●                                                                                                        |                           |                 |                 |                 |                 |                 |
|                                                      | Anti-islanding protection                                 | ●                                                                                                        |                           |                 |                 |                 |                 |                 |
|                                                      | Arc fault circuit interrupter (AFCI)                      | ○                                                                                                        |                           |                 |                 |                 |                 |                 |
| General data                                         | Over-voltage category                                     | DC: Type II; AC: Type III                                                                                |                           |                 |                 |                 |                 |                 |
|                                                      | Power factor at rated power / adjustable displacement     | 1 / 0.8 leading - 0.8 lagging                                                                            |                           |                 |                 |                 |                 |                 |
|                                                      | Dimensions (W / H / D)                                    | 425 / 520 / 210 mm                                                                                       |                           |                 |                 |                 |                 |                 |
|                                                      | Weight                                                    | 22.0 kg                                                                                                  |                           |                 |                 |                 |                 |                 |
|                                                      | Noise emission                                            | typical < 30 dB                                                                                          |                           |                 |                 |                 |                 | typical < 35 dB |
|                                                      | Operating temperature range                               | -25 °C ~ 60 °C                                                                                           |                           |                 |                 |                 |                 |                 |
|                                                      | Cooling concept                                           | Natural convection                                                                                       |                           |                 |                 |                 | Smart cooling   |                 |
|                                                      | Degree of protection (as per IEC 60529)                   | IP66                                                                                                     |                           |                 |                 |                 |                 |                 |
|                                                      | Max. relative humidity                                    | 100 %                                                                                                    |                           |                 |                 |                 |                 |                 |
|                                                      | Max. operating altitude                                   | 3000 m                                                                                                   |                           |                 |                 |                 |                 |                 |
| Features                                             | HMI                                                       | LED, App                                                                                                 |                           |                 |                 |                 |                 |                 |
|                                                      | BMS interface                                             | CAN                                                                                                      |                           |                 |                 |                 |                 |                 |
|                                                      | Internet communication interfaces                         | Dongle: Wi-Fi (2.4 GHz) / LAN (100 Mbps)<br>Inverter: RS485 (ModBus RTU), LAN (100Mbps, ModBus TCP only) |                           |                 |                 |                 |                 |                 |
|                                                      | Digital output (dry contact) / No. of outputs             | ● / 2                                                                                                    |                           |                 |                 |                 |                 |                 |
|                                                      | Digital input (dry contact) / No. of inputs               | ● / 6                                                                                                    |                           |                 |                 |                 |                 |                 |
|                                                      | Integrated power control / export power control           | ● / ●                                                                                                    |                           |                 |                 |                 |                 |                 |

Note:  
1.This value represents the maximum and can be reduced via the Solplanet App based on different market requirements.

