

Three phase hybrid inverters 8 to 12 kW

# ASW H-T3 Series



Models:

ASW08kH-T3

ASW10kH-T3

ASW12kH-T3



## Easy-to-install

- Quick and easy-to-install with standard tools
- Compact wall mount design
- Simple battery and smart meter interfaces for quick and secure installation



## Reliable

- Up to 150 % PV array oversizing for higher yields
- Available with or without asymmetrical power output <sup>1</sup>
- UPS level switching time < 10 ms
- IP66 rated design for indoor and outdoor use
- Arc fault circuit interrupter (AFCI) <sup>2</sup>
- ShadeSol shadow management



## User-friendly

- 3 independent MPPTs for flexible and higher kWp PV array design
- Smart setup, commissioning and monitoring via Solplanet's App
- Intelligent work modes and customisable battery management for DOD / Time of Use / Power setting
- Max. 16 A input current, ideal for bifacial and large PV modules
- Supporting parallel for on-grid and off-grid operation

| Technical Datasheet |                                                                              | ASW08kH-T3                                                                                                                                                                                                                                                                                                      |          | ASW10kH-T3      |          | ASW12kH-T3 |          |
|---------------------|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|----------|------------|----------|
| PV input            | Max. PV array power                                                          | 12000 Wp                                                                                                                                                                                                                                                                                                        |          | 15000 Wp        |          | 18000 Wp   |          |
|                     | Max. input voltage                                                           | 1100 V <sup>5</sup>                                                                                                                                                                                                                                                                                             |          |                 |          |            |          |
|                     | MPP voltage range / rated input voltage                                      | 200 V - 950 V / 630 V <sup>3</sup>                                                                                                                                                                                                                                                                              |          |                 |          |            |          |
|                     | Min. input voltage / start voltage                                           | 60 V / 180 V                                                                                                                                                                                                                                                                                                    |          |                 |          |            |          |
|                     | No. of independent MPPT trackers / strings per MPPT input                    | 3 / 1                                                                                                                                                                                                                                                                                                           |          |                 |          |            |          |
|                     | Max. input current / Max. power per MPP tracker                              | 16 A                                                                                                                                                                                                                                                                                                            | 10000 W  | 16 A            | 10000 W  | 16 A       | 10000 W  |
|                     | Max. short-circuit current per MPP tracker                                   | 24 A                                                                                                                                                                                                                                                                                                            |          |                 |          |            |          |
| Battery input       | Battery voltage range                                                        | 120 V - 600 V <sup>5</sup>                                                                                                                                                                                                                                                                                      |          |                 |          |            |          |
|                     | Max. charge / discharge power                                                | 8000 W                                                                                                                                                                                                                                                                                                          |          | 10000 W         |          | 12000 W    |          |
|                     | Max. charge / discharge current                                              | 30 A <sup>5</sup>                                                                                                                                                                                                                                                                                               |          |                 |          |            |          |
|                     | Battery type                                                                 | LiFePO4                                                                                                                                                                                                                                                                                                         |          |                 |          |            |          |
| AC input            | Rated grid voltage                                                           | 3/N/PE, 220 V / 380 V; 230 V / 400 V; 240 V / 415 V                                                                                                                                                                                                                                                             |          |                 |          |            |          |
|                     | Rated grid frequency                                                         | 50 Hz / 60 Hz                                                                                                                                                                                                                                                                                                   |          |                 |          |            |          |
|                     | Max. input power from grid                                                   | 16000 W                                                                                                                                                                                                                                                                                                         |          | 20000 W         |          | 24000 W    |          |
|                     | Max. input current from grid                                                 | 23.2 A                                                                                                                                                                                                                                                                                                          |          | 29.0 A          |          | 34.8 A     |          |
| AC output           | AC voltage range / Nominal AC voltage                                        | 270V - 480V / 3/N/PE, 220 V / 380 V; 230 V / 400 V; 240 V / 415 V                                                                                                                                                                                                                                               |          |                 |          |            |          |
|                     | Rated AC grid frequency                                                      | 50 Hz / 60 Hz                                                                                                                                                                                                                                                                                                   |          |                 |          |            |          |
|                     | AC grid frequency range                                                      | 45 Hz - 55 Hz / 55 Hz - 65 Hz                                                                                                                                                                                                                                                                                   |          |                 |          |            |          |
|                     | Rated apparent power                                                         | 8000 VA                                                                                                                                                                                                                                                                                                         |          | 10000 VA        |          | 12000 VA   |          |
|                     | Max. apparent power                                                          | 8000 VA                                                                                                                                                                                                                                                                                                         |          | 10000 VA        |          | 12000 VA   |          |
|                     | Rated grid output current (@400 V)                                           | 11.6 A                                                                                                                                                                                                                                                                                                          |          | 14.5 A          |          | 17.4 A     |          |
|                     | Max. grid output current(@400 V)                                             | 12.8 A                                                                                                                                                                                                                                                                                                          |          | 16.0 A          |          | 19.2 A     |          |
|                     | Power factor at rated power / adjustable displacement                        | 1 / 0.8 leading - 0.8 lagging                                                                                                                                                                                                                                                                                   |          |                 |          |            |          |
|                     | Harmonics THDi (@ Nominal power)                                             | < 3 % (of nominal power)                                                                                                                                                                                                                                                                                        |          |                 |          |            |          |
| EPS output          | Nominal output voltage                                                       | 3/N/PE, 220 V / 380 V; 230 V / 400 V; 240 V / 415 V                                                                                                                                                                                                                                                             |          |                 |          |            |          |
|                     | Nominal output frequency                                                     | 50 Hz / 60 Hz                                                                                                                                                                                                                                                                                                   |          |                 |          |            |          |
|                     | Rated apparent power                                                         | 8000 VA                                                                                                                                                                                                                                                                                                         |          | 10000 VA        |          | 12000 VA   |          |
|                     | Rated current (@400 V)                                                       | 11.6 A                                                                                                                                                                                                                                                                                                          |          | 14.5 A          |          | 17.4 A     |          |
|                     | Max. current (@400 V, continuous on-grid / off-grid)                         | 23.2 A                                                                                                                                                                                                                                                                                                          | 11.6 A   | 29.0 A          | 14.5 A   | 34.8 A     | 17.4 A   |
|                     | Max. power on each phase (@400 V, continuous on-grid / off-grid)             | 5333 W                                                                                                                                                                                                                                                                                                          | 2667 W   | 6667 W          | 3333 W   | 8000 W     | 4000 W   |
|                     | Peak output apparent power (@400 V, continuous on-grid / off-grid up to 10s) | 16000 VA                                                                                                                                                                                                                                                                                                        | 16000 VA | 20000 VA        | 20000 VA | 24000 VA   | 24000 VA |
|                     | Max. switch time                                                             | < 10 ms                                                                                                                                                                                                                                                                                                         |          |                 |          |            |          |
|                     | Output THDv (@ Linear load)                                                  | 2 %                                                                                                                                                                                                                                                                                                             |          |                 |          |            |          |
| Effi-<br>ciency     | MPPT efficiency                                                              | 99.9 %                                                                                                                                                                                                                                                                                                          |          |                 |          |            |          |
|                     | Euro efficiency / Max. efficiency                                            | 97.2 % / 98.0 %                                                                                                                                                                                                                                                                                                 |          | 97.9 % / 98.4 % |          |            |          |
| Safety protection   | DC surge protection( Type II, according to EN/IEC 61643-11)                  | ●                                                                                                                                                                                                                                                                                                               |          |                 |          |            |          |
|                     | Insulation resistance detection                                              | ●                                                                                                                                                                                                                                                                                                               |          |                 |          |            |          |
|                     | PV string input reverse polarity protection                                  | ●                                                                                                                                                                                                                                                                                                               |          |                 |          |            |          |
|                     | Battery input reverse polarity protection                                    | ●                                                                                                                                                                                                                                                                                                               |          |                 |          |            |          |
|                     | Ground fault monitoring                                                      | ●                                                                                                                                                                                                                                                                                                               |          |                 |          |            |          |
|                     | Residual current monitoring unit                                             | ●                                                                                                                                                                                                                                                                                                               |          |                 |          |            |          |
|                     | AC short circuit protection                                                  | ●                                                                                                                                                                                                                                                                                                               |          |                 |          |            |          |
|                     | Anti-islanding protection                                                    | ●                                                                                                                                                                                                                                                                                                               |          |                 |          |            |          |
|                     | Arc fault circuit interrupter (AFCI)                                         | ○ <sup>2</sup>                                                                                                                                                                                                                                                                                                  |          |                 |          |            |          |
|                     | Dimensions (W / H / D)                                                       | 545 / 465 / 205 mm                                                                                                                                                                                                                                                                                              |          |                 |          |            |          |
| General data        | Weight                                                                       | 26.0 kg                                                                                                                                                                                                                                                                                                         |          |                 |          |            |          |
|                     | Operating temperature range                                                  | -25 °C ~ 60 °C                                                                                                                                                                                                                                                                                                  |          |                 |          |            |          |
|                     | Cooling concept                                                              | Natural convection                                                                                                                                                                                                                                                                                              |          |                 |          |            |          |
|                     | Noise emission                                                               | < 35 dB                                                                                                                                                                                                                                                                                                         |          |                 |          |            |          |
|                     | Degree of protection (as per IEC 60529)                                      | IP66                                                                                                                                                                                                                                                                                                            |          |                 |          |            |          |
|                     | Max. relative humidity                                                       | 100 %                                                                                                                                                                                                                                                                                                           |          |                 |          |            |          |
|                     | Max. operating altitude                                                      | 4000 m                                                                                                                                                                                                                                                                                                          |          |                 |          |            |          |
|                     | User interface                                                               | LED & App                                                                                                                                                                                                                                                                                                       |          |                 |          |            |          |
|                     | BMS interface                                                                | CAN                                                                                                                                                                                                                                                                                                             |          |                 |          |            |          |
| Features            | Smart meter interface                                                        | RS485                                                                                                                                                                                                                                                                                                           |          |                 |          |            |          |
|                     | Communication interfaces                                                     | Dongle: Wi-Fi (2.4 GHz) / LAN (100 Mbps)<br>Inverter: RS485 (ModBus RTU), LAN (100 Mbps, Modbus TCP only) <sup>4</sup>                                                                                                                                                                                          |          |                 |          |            |          |
|                     | Digital output (dry contact) / No. of outputs                                | ● / 2                                                                                                                                                                                                                                                                                                           |          |                 |          |            |          |
|                     | Digital input (dry contact) / No. of inputs                                  | ● / 4                                                                                                                                                                                                                                                                                                           |          |                 |          |            |          |
|                     | Integrated power control / export power control                              | ● / ●                                                                                                                                                                                                                                                                                                           |          |                 |          |            |          |
|                     | Certificates (More available upon request)                                   | AS/NZS 4777.2, TOR Stromerzeugungsanlagen Typ A , C10/11, TR 3.3.1, FD C11-519-11, EN 50549-1, EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, VDE-AR-N 4105, IEC 60068-2-x, IEC 61683, IEC 61727, IEC 62116, IEC 63027, NTS Type A, RD 647, UNE 217001, UNE 217002, NA/EEA-NE7, G99-1, PORTARIA N° 140 |          |                 |          |            |          |
|                     |                                                                              |                                                                                                                                                                                                                                                                                                                 |          |                 |          |            |          |
|                     |                                                                              |                                                                                                                                                                                                                                                                                                                 |          |                 |          |            |          |

● standard features / ○ optional features / - not available

<sup>1</sup> Asymmetrical power output functionality was released in August 2024, please confirm version with Solplanet's sales staff before purchase.

<sup>2</sup> AFCI functionality was released in April 2025, please confirm version with Solplanet's sales staff before purchase.

<sup>3</sup> The latest optimised platform design supports MPP voltage range at 150V-950V, pending subsequent certificate updates.

<sup>4</sup> Modbus TCP functionality was released in April 2025, please confirm version with Solplanet's sales staff before purchase.

<sup>5</sup> When connecting to Solplanet's Ai-HB G2 Series batteries (with only 5 kWh, i.e. two modules), limitations as below apply:

- The maximum open circuit voltage of PV shall not exceed 750 V;
- The battery nominal voltage range is reduced to 102.4 V for the particular operation;
- The maximum charging and discharging current depends on the operating point and is within the range greater than 25 A, less than 30 A.

