Solplanet ASW Series Inverters Installation Guide

Contents

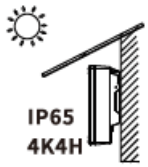
Solplanet ASW Series Inverters

Safety Instruction

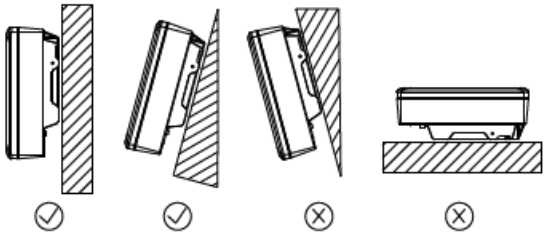
1. The contents of this document will be updated irregularly for product version upgrades or other reasons. Unless otherwise specified, this document only works as a guide. All statements, information, and suggestions in this document do not constitute any guarantee.
2. This product can only be installed, commissioned, operated, and maintained by technicians who have carefully read and fully understood the user manual.
3. This product must only be connected with PV modules of protection class I(in accordance with EC 61730, application class A). PV modules with a high capacitance to the ground must only be used IT their capacity does not exceed luk. Do not connect any sources of energy other than P modules to the product.
4. When exposed to sunlight, the PV modules generate dangerous high DC voltage which is present in the DC cable conductors and live components. Touching live DC cable conductors and live components can result in lethal injuries due to electric shock.
5. All components must remain within their permitted operating ranges at all times.
6. The product complies with Electromagnetic compatibility 2014/30/EU, Low Voltage Directive 2014/35/EU, and Radio Equipment Directive 2014/53/EU.

Mounting environment

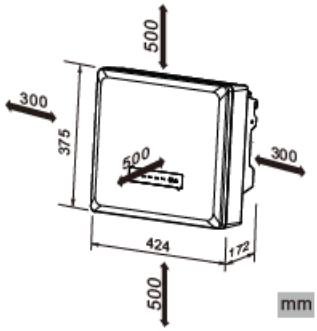
1. . Ensure that the inverter is installed out of the reach of children.
2. To ensure the best operating status and prolonged service life, the mounting8 ambient temperature of the inverter should be s40C.
3. To avoid direct sunlight, rain, snow, and ponding on the inverter, it is suggested to mount the inverter in places with a top protective roof.
4. Do not completely cover the top of the inverter.



5. The mounting condition must be suitable for the weight and size of the inverter. The inverter is suitable to be mounted on a solid wall that is vertical or tilted backward (Max. 15°).

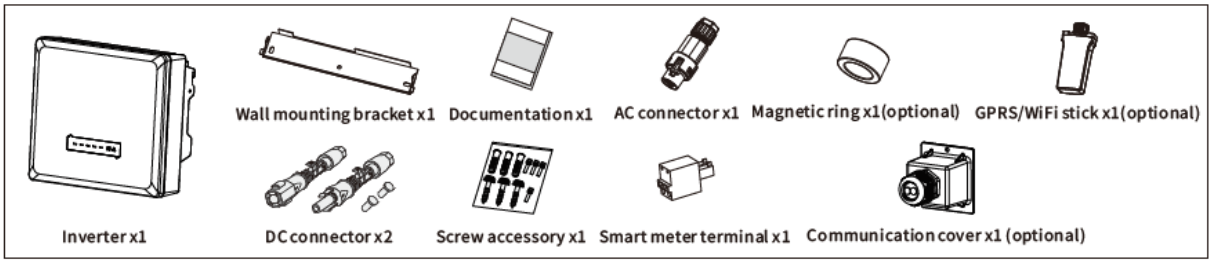


6. It is not recommended to install the inverter on a wall made of plasterboards or similar materials.
7. the inverter may make a noise when working.



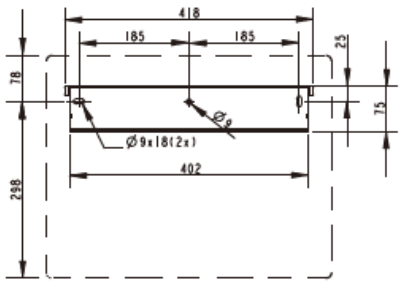
8. To ensure adequate heat dissipation, the clearances between the inverter and other objects are recommended as follows.

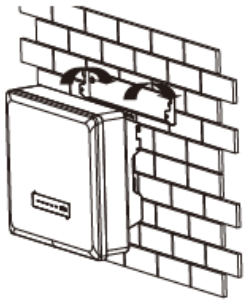
Scope of delivery



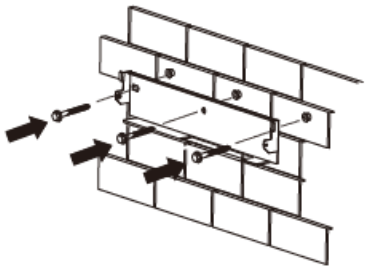
Inverter s mounting

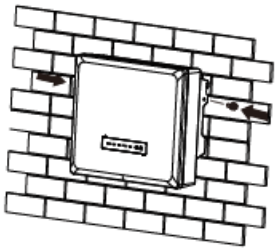
1. Use a 010mm bit to drill 3 holes at a depth of about 70mm according to the location of the wall mounting bracket.
2. Hang the inverter to the wall mounting bracket.



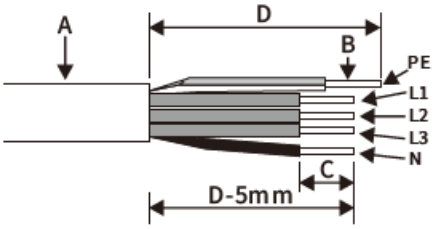


3. Insert wall plugs into the wall and fix the wall mounting bracket to the wall by screwing three self-tapping screws(SW10).



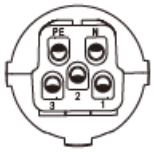


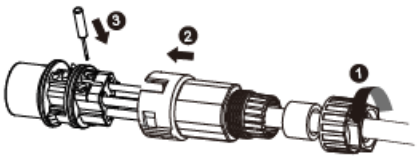
4. Secure the inverter to the wall mounting bracket on both sides using M4 screws. Screwdriver type: PH2, torque: 1.6Nm.
5. Insert the adapter into the socket element, stuff the seal ring into the adapter, and tighten the swivel nut.



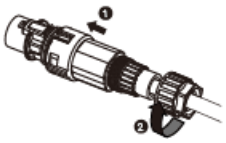
Object	Description	Value
A	External diameter	10-16mm
B	Copper conductor cross-section	2.5-6mm²
C	Stripping length of the insulated conductors	13mm
D	Stripping length of the cable outer sheath	53mm
The PE conductor must be 5 mm longer than the L and N conductors.		

6. Plug the AC connector into the socket for the AC connection.





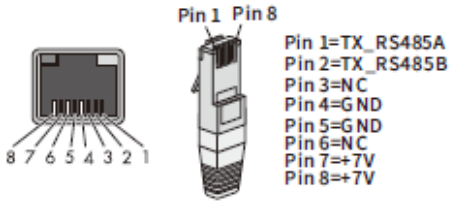
7. If required, you can connect a second protective conductor as equipotential bonding.



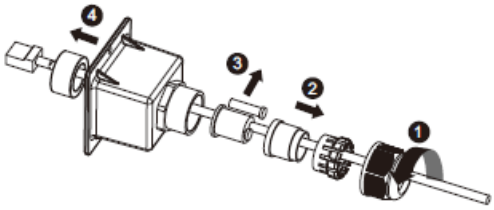
Object	Explanation
M4×10 screw	Screwdriver type: PH2, torque: 1.6Nm
OT terminal lug	Customer provided type: M4
Grounding cable	Copper conductor cross-section: 2.5-6mm2

AC connection

- All electrical installations must be done in accordance with all local and national rules.
- Make sure that all DC switches and Ac circuit breakers have been disconnected before establishing an electrical connection. Otherwise, the high voltage within the inverter may lead to electrical shock.
- In accordance with safety regulations, the inverter needs to be grounded firmly. When a poor ground connection(PE) occurs, the inverter will report a PE ground error. Please check and ensure that the inverter is grounded firmly. contact AisWElserice
    1. AC cable requirements are as follows. Insert the conductor into a suitable ferrule acc. to DIN 46228-4 and crimp the contact.



2. Loosen the swivel nutotAC connector. Insert the crimped conductors into corresponding terminals and tighten the screws with the screwdriver. Screwdriver type: PH1, torque: 0.8Nm.



DC connection

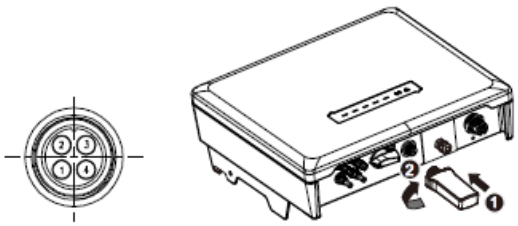
- Make sure PV modules have good insulation against the ground.
- modules must not exceed the Max. input voltage of the inverter.
- Chechen the coldest day based on statistical records, the Max. the open-circuit voltage of the
- Pk the polarity of DC cables.
- Ensure that the DC switch has been disconnected.
- Do not disconnect DC connectors under load.
    1. Please refer to the “DC Connector Installation Guide”.
    2. Before the DC connection, insert the DC plug connectors with sealing plugs into the DC input connectors of the inverter to ensure a protection degree.

Communication setup
Separate communication cables from power cables and serious interference sources. The communication cables must be CAT-5E or higher-level shield cables. Pin GER assignment complies with EIA/TIA 568B standard. For outdoor use, the communication cables must be UV-resistant. The total length of the communication cable cannot exceed 1000m.

- If only one communication cable is connected, insert a sealing plug into the unused hole of the sealing ring of the cable gland.
- Before connecting communication cables, ensure the protective film or communication plate attached to the communication opening on the inverter is sealed tightly.

Smart meter

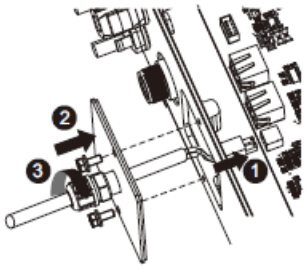
1. Remove the communication plate from the inverter



2. Loosen the swivel nut of the cable gland on the communication plate, remove the sealing plug and lead the

stripped cable through the cable gland and communica plate, press the latch of the smart meter terminal and insert the stripped cable accordingly. Make sure the cable is connected firmly.

3. Insert the smart meter terminal into the socket, attach the communication plate to the inverter with M4 screws, and tighten the swivel nut. Screwdriver type: PH2, torque: 1.6Nm.



4. If a communication cover is used, remove only one sealing plug of the cable gland to thread the cable. The detailed installation process follows the above steps.

Commissioning

- Check that the inverter is grounded reliably.
- Check that the ventilation condition surrounding the inverter is good.
- Notice Check that the grid voltage at the point of connection of the inverter is within the permitted range.
- that the sealing plugs in the DC connectors and the communication cable gland are sealed tightly.
- Check that grid connection regulations and other parameter settings meet safety requirements.
- Switch on the AC circuit breaker between the inverter and the grid.
- Switch on the DC switch.
- When there is sufficient DC power applied and the grid conditions are met, the inverter will start to operate automatically.

EU Declaration of Conformity

Within the scope of the EU directives

- Electromagnetic compatibility 2014/30/EU (L 96/79-106, March 29, 2014) (EMC)
- Low voltage directive 2014/35/EU (L 96/357-374, March 29, 2014) (LVD))
- Radio equipment directive 2014/53/EU (L 153/62-106, May 22, 2014) (RED)
- AISI Technology (Shanghai) Co., Ltd. confirms herewith that the inverters mentioned in this document are in compliance with the fundamental requirements and other relevant provisions of the above-mentioned directives.
- The entire EU Declaration of Conformity can be found at **www.aiswei-tech.com**.

Technical Data

Technical Data DC Input	ASW3000-T	ASW4000-T	ASW5000-T	ASW6000-T	ASW8000-T	ASW10000-T
Max. PV modules power(STC)	4500W	6000W	7500W	9000W	12000W	15000W
Max. DC input voltage	1000V					
MPP voltage range	125-950V					
Max. DC input current	2×12A					
Max. DC input short current	2×18A					
Max. DC input current, per MPPT	12A					
Number of MPPT/strings per MPPT AC Output	2/1					
Rated active power	3000W	4000W	5000W	6000W	8000W	10000W
Max. apparent power	3000VA	4000VA	5000VA	6000VA	8000VA	10000VA
Rated grid voltage	3/N/PE, 220/380V, 230V/400V					
Rated grid frequency	50/60Hz					
	5.0A	6.7A	8.4A		13.3A	15.2A
Max. AC output current				9.1A		
Adjustable displacement power factor	0.8 ind 0.8 cap					
Harmonic distortion (THD) at Pac.r General Data	< 3%					
Dimensions (W x H x D)	424×375×172mm		15.0kg			
Weight	14.0kg					
DC connection	Plug-in DC connector					
AC connection	Plug-in AC connector					
Communication	GPRS/WiFi , RS485(Optional)					
Display	LED					
Mounting	Wall mounting		Fan cooling			
Cooling	Convection					
Operating temperature range	-25…+60℃					

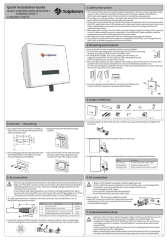
Relative humidity (non-condensing)	0…100% 3000m
Max. operating altitude	
Degree of protection	IP65
Climate Category	4K4H
Topology	Transformerless

Contact

If you have any technical problems with our products, please contact our service. We require the following information in order to provide you with the necessary assistance:

- Inverter device type
- Inverter serial number
- Type and number of connected PV modules
- Error code
- Mounting location
- Warranty card
- EMAIL Service email: **service.EMEA@solplanet.net**
- APAC Service email: **service.APAC@solplanet.net**
- LATAM Service email: **service.LATAM@solplanet.net**
- Answer Greater China
- Service email: **service.china@aiswei-tech.com**
- Hotline: +86 400 801 9996
- Taiwan Service email: **service.taiwan@aiswei-tech.com**
- Hotline: +886 8090892 12 **https://solplanet.net/contact-us/**

Documents / Resources

	Solplanet ASW Series Inverters [pdf] Installation Guide ASW3000, ASW4000, ASW5000, ASW6000-T, ASW8000, ASW10000-T, ASW Series Inverters , ASW Series, Inverters

References

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- User Manual

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