Quick Installation Guide

Model: ASW3000/3680/4000/5000-S



Language: English

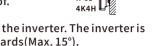


I.Safety Instruction

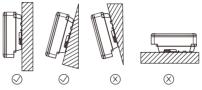
- 1. The contents of this document will be updated irregularly for product version upgrade or other reasons. Unless otherwise specified, this document only works as guide. All statements, information and suggestions in this document do not constitute any guarantee.
- 2. This product can only be installed, 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 II(in accordance with IEC 61730, application class A). PV modules with a high capacitance to ground must only be used if their capacity does not exceed $1\mu F$. Do not connect any sources of energy other than PV 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.

II. Mounting environment

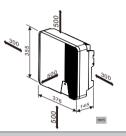
- 1. Ensure that the inverter is installed out of the reach of children.
- 2. To ensure best operating status and prolonged service life, the mounting ambient temperature of the inverter should be ≤40°C.
- 3. To avoid direct sunlight, rain, snow, ponding on the inverter, it is suggested to mount the inverter in places with a top protective roof. Do not completely cover the top of the inverter.



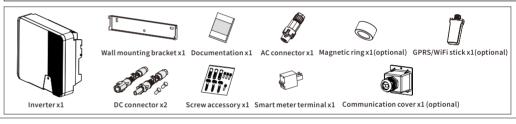
4. The mounting condition must be suitable for the weight and size of the inverter. The inverter is suitable to be mounted on solid wall that is vertical or tilted backwards (Max. 15°). It is not recommended to install the inverter on wall made of plasterboards or similar materials. The inverter may make noise when working.



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

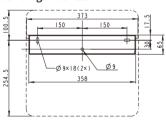


III. Scope of delivery

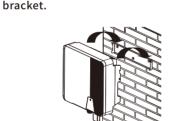


IV.Inverter's mounting

1. Use a Φ 10mm bit to drill 3 holes at a depth of about 70mm according to the location of the wall mounting bracket.

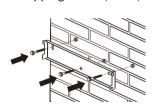


2. Insert wall plugs into the wall and fix the wall 4. Secure the inverter to the wall mounting mounting bracket to the wall by screwing three self-tapping screws(SW10).



3. Hang the inverter to the wall mounting

bracket on both sides using M4 screws. Screwdriver type: PH2, torque: 1.6Nm.

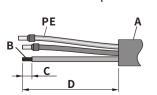




V.AC connection

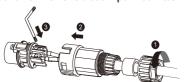


- All electrical installations must be done in accordance with all local and national rules. Make sure that all DC switches and AC circuit breakers have been disconnected before establishing electrical connection. Otherwise, the high voltage within the inverter may lead to electrical shock.
- In accordance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



Object	Description	Value			
Α	External diameter	10-16mm			
В	Copper conductor cross-section	4-6mm ²			
С	Stripping length of the insulated conductors	13mm			
D	Stripping length of the cable outer sheath	53mm			
The PE conductor must be 2 mm longer than the L and N conductors.					

2. Loosen the swivel nut of AC connector. Insert the crimped conductors into corresponding terminals and tighten screws with the accompanied Allen key. Torque: 2.0Nm



3. Insert the adapter to the socket element, stuff the seal ring into the adapter and tighten the swivel nut.



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



5. 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: 4-6mm ²			

VI.DC connection



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



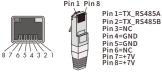
VII. Communication setup



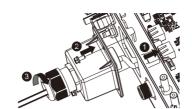
- Separate communication cables from power cables and serious interference sources. ■ The communication cables must be CAT-5E or higher-level shield cables. Pin
- assignment complies with EIA/TIA 568B standard. For outdoor use, the communication cables must be UV-resistant. The total length of communication cable cannot
- If only one communication cable is connected, insert a sealing plug into the unused hole of 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.

1. COM1: RS485(optional)

1) RS485 cable pin assignment as below.



2) Loosen the swivel nut of the cable gland on the communication cover, remove sealing plugs and lead the cable through the swivel nut, sealing ring, communication cover and magnetic ring.



3) Insert the cable into the socket, attach the communication cover to inverter with M4

screws, and tighten the swivel nut.

Screwdriver type: PH2, torque: 1.6Nm

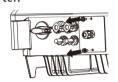
2. COM2: GPRS/WiFi(optional)



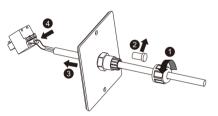
• The connection refers to "GPRS/WiFi-stick User Manual".



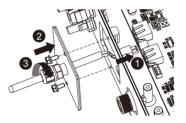
1) Remove the communication plate from the inverter



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 communication 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 to the socket, attach communication plate to the inverter with M4 screws, and tighten the swivel nut. Screwdriver type: PH2, torque: 1.6Nm.



4) If communication cover used, remove only one sealing plug of the cable gland to thread the cable. Detailed installation process follows above steps.

VIII.Commissioning

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

IX.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)



The entire EU Declaration of Conformity can be found at www.aiswei-tech.com.

X.Technical Data

DC Input Max. PV modules power(STC) 4500W 5520W 6000W 7500W Max. DC input voltage 580V MPP voltage range 80-550V 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 2/1 AC Output 3000W 3680W 4000W 5000W Rated active power 3000WA 3680WA 4000WA 5000WA Rated grid voltage 220/2/30V 5000WA Rated grid frequency 50/60Hz 4000WA 22.7A Max. AC output current 15A 16A 20A 22.7A Adjustable displacement power factor 0.8 ind0.8 cap Harmonic distortion (THD) at Pac.r <3% General Data 11kg Dimensions (W x H x D) 376×355×145mm Weight 11kg Noise emission (typical) <25d8(A)@1m DC connection Plug-in DC connector Connection GPRS/WiFi, R\$485(Optional) Display LED Mounting Wall mounting Cooling Convection Operating temperature range -25+60°C <	Technical Data	ASW3000-S	ASW3680-S	ASW4000-S	ASW5000-S	
Max. DC input voltage	DC Input					
MPP voltage range 80-550V Max. DC input current 2×12A Max. DC input short current 12A Max. DC input current, per MPPT 12A Number of MPPT/strings per MPPT 2/1 AC Output Rated active power 3000W 3680W 4000W 5000W Max. apparent power 3000VA 3680VA 4000VA 5000VA Rated grid voltage 220/230V Rated grid frequency 50/60Hz Max. AC output current 15A 16A 20A 22.7A Adjustable displacement power factor 0.8 ind0.8 cap Harmonic distortion (THD) at Pac.r <3% General Data Dimensions (W x H x D) 376×355×145mm Weight 11kg Noise emission (typical) <25dB(A)@1m DC connection Plug-in DC connector AC connection Plug-in AC connector Communication GPRS/WiFi, RS485(Optional) Display LED Mounting Wall mounting Cooling Convection Operating temperature range -25+60°C Relative humidity (non-condensing) Max. operating altitude 4000m(Derating above 3000m) Degree of protection IP65 Climate Category 4K4H	Max. PV modules power(STC)	4500W	5520W	6000W	7500W	
Max. DC input current Max. DC input short current Max. DC input short current Max. DC input current, per MPPT 12A Number of MPPT/strings per MPPT AC Output Rated active power 3000W Max. apparent power 3000VA 3680W 4000W 5000VA Max. apparent power 3000VA 3680VA 4000VA 5000VA Rated grid voltage 220/230V Rated grid frequency 50/60Hz Max. AC output current 15A 16A 20A 22.7A Adjustable displacement power factor Harmonic distortion (THD) at Pac.r General Data Dimensions (Wx Hx D) 376×355×145mm Weight 11kg Noise emission (typical) Connection Plug-in DC connector AC connection Plug-in DC connector AC connection GPRS/WiFi, RS485(Optional) Display LED Mounting Wall mounting Cooling Convection Operating temperature range Relative humidity (non-condensing) Max. operating altitude 4000m(Derating above 3000m) Degree of protection IP65 Climate Category 4K4H	Max. DC input voltage	580V				
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Rated grid frequency Max. AC output current 15A 16A 20A 22.7A Adjustable displacement power factor Harmonic distortion (THD) at Pac.r General Data Dimensions (W x H x D) Weight 11kg Noise emission (typical) Connection AC connection Plug-in DC connector Communication Display LED Mounting Cooling Convection Operating temperature range Relative humidity (non-condensing) Max. operating altitude Degree of protection Plas 16A 20A 22.7A 22.7A 24.7A 25.7A 25.7A 25.7A 26.7A 27.7A 28.7A 29.7A 20.7A 2	Max. apparent power	3000VA	3680VA	4000VA	5000VA	
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Climate Category 4K4H	Max. operating altitude	4000m(Derating above 3000m)				
	Degree of protection	IP65				
Topology Transformerless	Climate Category	4K4H				
	Topology	Transformerless				

XI.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

EMEA

Service email: service.EMEA@solplanet.net

Service email: service.APAC@solplanet.net

Service email: service.LATAM@solplanet.net

Aiswei Greater China

Service email: service.china@aiswei-tech.com

Hotline: +86 400 801 9996

Taiwan

Service email: service.taiwan@aiswei-tech.com

Hotline: +886 809089212

https://solplanet.net/contact-us/

Scan QR code:



Monitoring APP

P/N: 540-30130-01

Date: 2022.07.21

6