



Solplanet ASW LT-G2 Series Three Phase String Inverters Installation Guide

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Quick Installation Guide

ASW30K-L T-G2/ASW33K-L T-G2/ASW36K-L T-G2/
ASW40K-LT-G2/ASW45K-LT-G2/ASW50K-LT-G2



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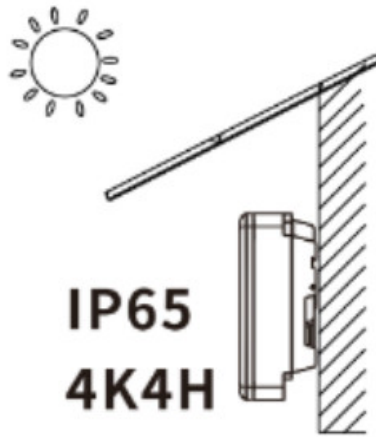
Safety Instruction

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 μ 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.

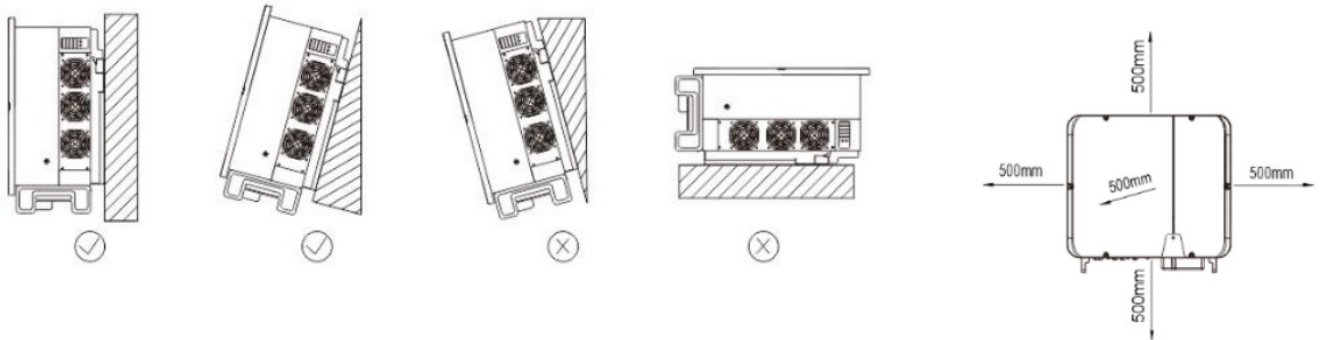
Mounting environment

1. Ensure that the inverter is installed out of the reach of children.
2. To ensure best operating status and prolonged service life, the ambient temperature of the location should be $\leq 40^{\circ}\text{C}$.
3. To avoid direct sunlight, rain, snow, pooling of water on the inverter, it is suggested to mount the inverter in places which are shaded during the majority of the day or to install an external cover that provides shade for the inverter.

Do not place a cover directly on top of the inverter.

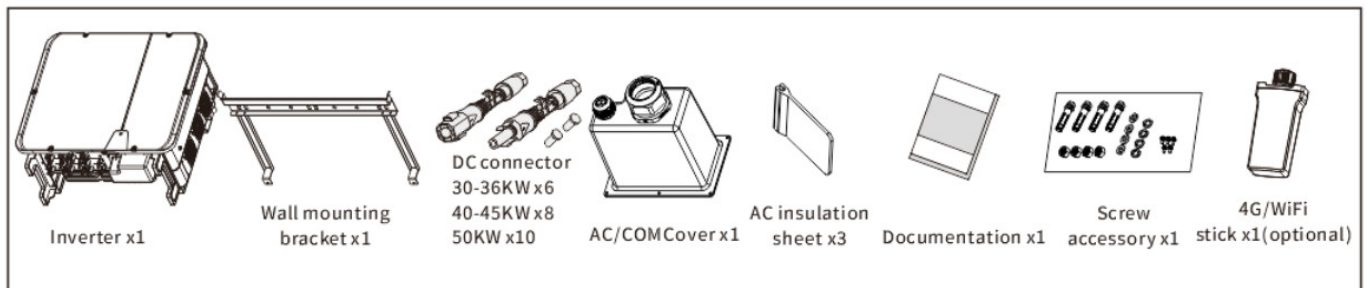


4. The mounting condition must be suitable for the weight and size of the inverter. The inverter is suitable to be mounted on a solid wall that is vertical or tilted backwards (Max. 15°). It is not recommended to install the inverter on walls made of plasterboards or similar materials. The inverter may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



5. To ensure adequate heat dissipation, the recommended clearances between the inverter and other objects is shown in the image to the right:

Scope of delivery



Inverter's mounting

1. Use a $\Phi 12\text{mm}$ bit to drill 3 holes at a depth of about 70mm according to the location of the wall mounting bracket. (Figure A)
2. Insert three wall plugs into the wall and fix the wall mounting bracket to the wall by inserting three M8 Screws (SW13). (Figure B)
3. Hang the inverter to the wall mounting bracket. (Figure C)
4. Secure the inverter to the wall mounting bracket on both sides using two M4 screws.
Screwdriver type: PH2, torque: 1.6Nm. (Figure D)

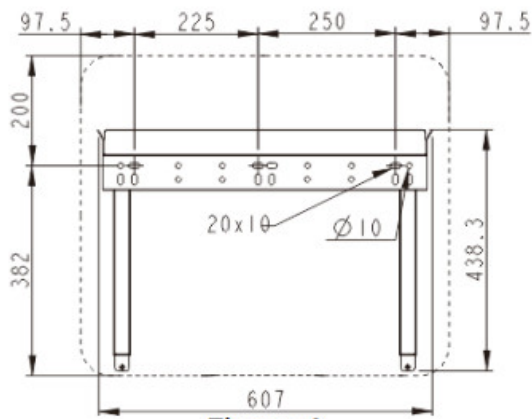


Figure A

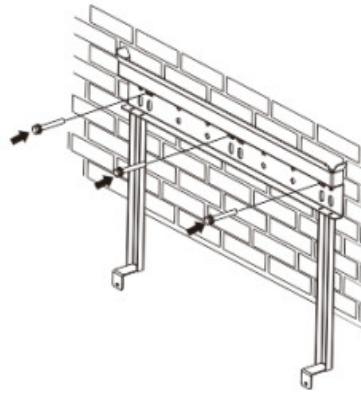


Figure B

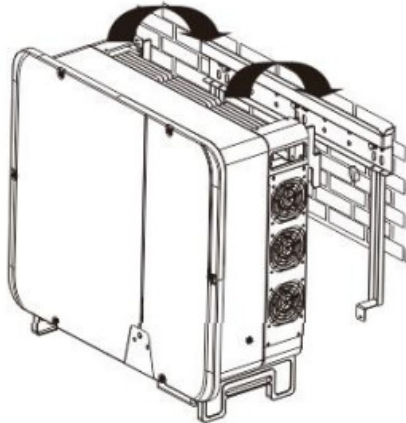
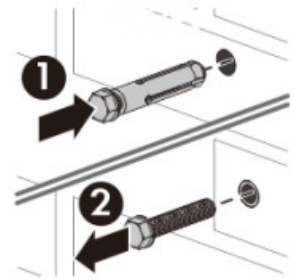


Figure C

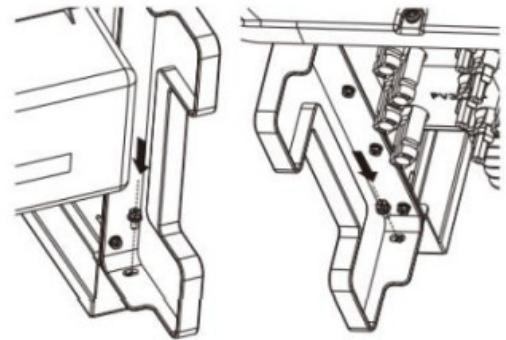


Figure D

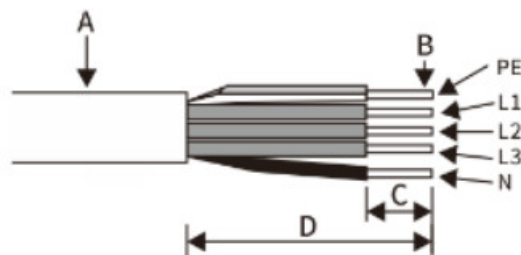
AC connection



DANGER

- 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 Sol planet service.

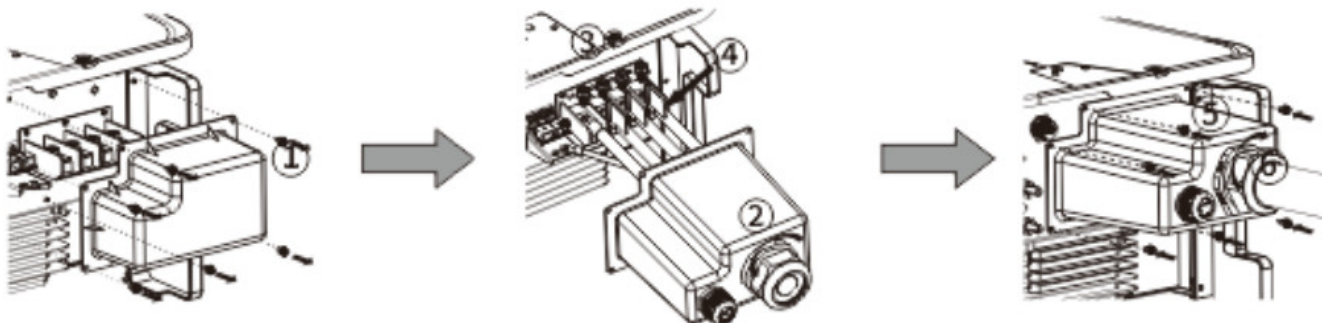
AC cable requirements are as follows. Strip the cable as shown in the figure, and crimp the copper wire to the appropriate OT terminal (provided by the customer).



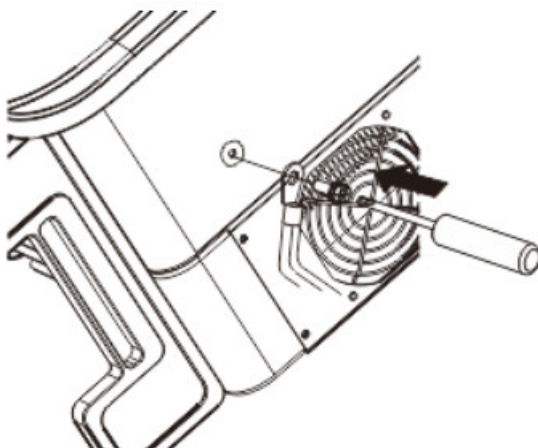
Object	Description	Value
A	External diameter	20-42mm
B	Copper conductor cross-section	16-50mm ²
C	Stripping length of the insulated conductors	Matching terminal
D	Stripping length of the cable outer sheath	130mm

The external diameter of the OT terminal shall be less than 22mm. The PE conductor must be 5 mm longer than the L and N conductors.
Please use a copper – aluminum terminal when aluminum cable is selected.

Remove the plastic AC/COM cover from the inverter, pass the cable through the waterproof connector on the AC/COM cover in the wall-mounting accessories package, and retain the appropriate sealing ring according to the wire diameter, lock the cable terminals onto the inverter-side wiring terminals respectively (L1/L2/L3/N/PE,M8/M5), install the AC insulation sheets onto the wiring terminals (as shown in Step 4 of the figure below), then lock the AC/COM cover with screws (M4x10), and finally tighten the waterproof connector. (Torque M4:1.6Nm; M5:5Nm; M8:12Nm; M63:SW65,10Nm)



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



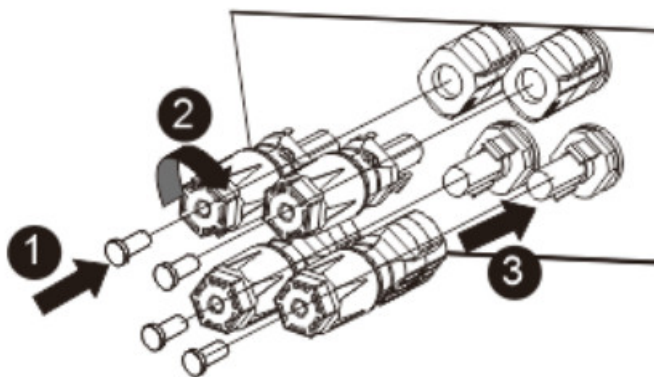
Object	Description
M5x12 screw	Screwdriver type: PH2, torque: 2.5Nm
OT terminal lug	Customer provided, type: M5
Grounding cable	Copper conductor cross-section: 16-25mm ²

DC connection



DANGER

- 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.



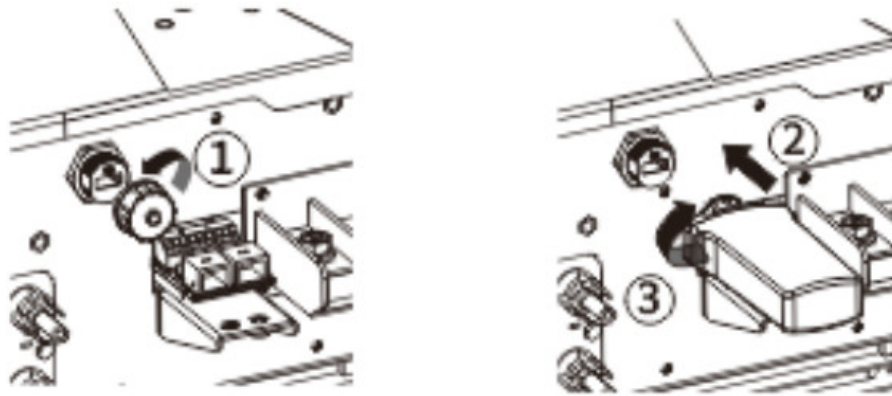
Communication setup



DANGER

- 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 exceed 1000m.
- 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

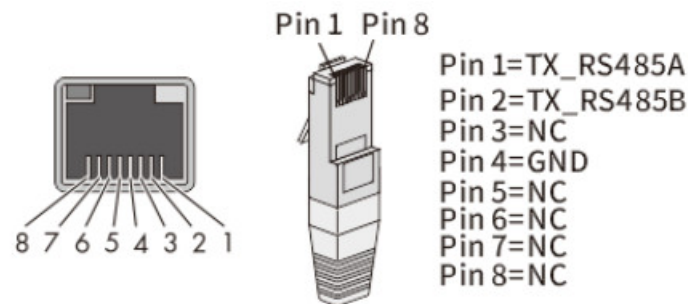
COM1: WiFi/4G (optional)



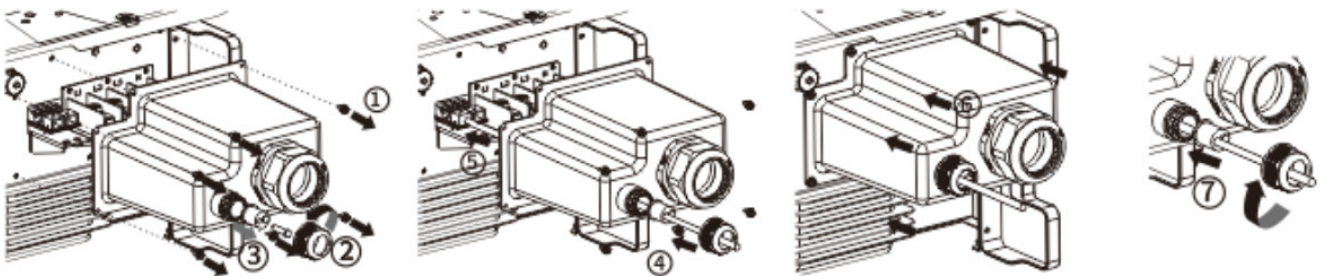
- Only applicable to the company's products, can't be connected to other USB devices.
- The connection refers to "GPRS/ WiFi-stick User Manual".

COM2: RS485 (Type 1)

1. RS485 cable pin assignment as below.

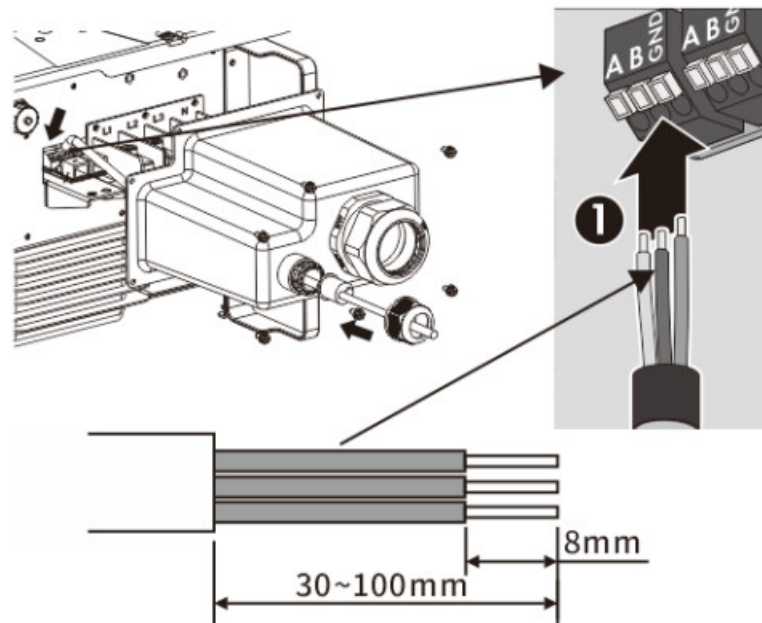


2. Disassemble the AC/COM cover and unscrew the waterproof connector, and then guide the cable through the connector and insert it into the corresponding terminal. Assemble the AC/COM cover with M4 screws and screw the waterproof connector. (Screw torque: M4:1.6Nm; M25:SW33,7.5 Nm)



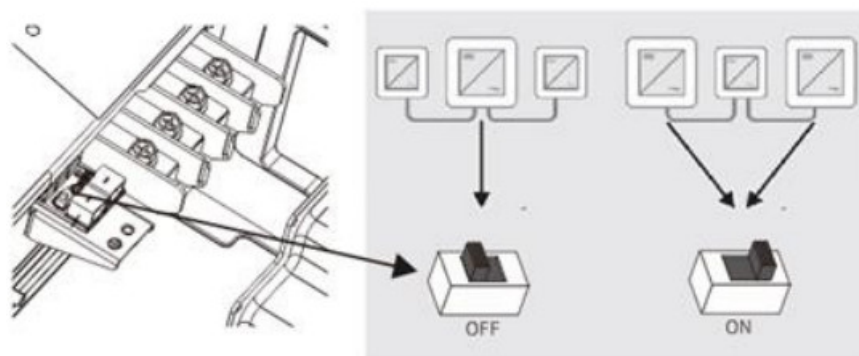
COM2: RS485 (Type 2)

1. The cable pin assignment as below, others refer to the above type 1.



COM2: RS485 (Multi-machine communication)

1. Refer to the following Settings



Commissioning



Notice

- 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 requirements.
 1. Switch on AC circuit breaker between the inverter and the grid.
 2. Switch on DC switch.
 3. Please refer to the AiProfessional/Aiswei App manual for commissioning of the inverter via Wifi.
 4. When there is sufficient DC power and the grid conditions are met, the inverter will start to operate automatically.

EU Declaration of Conformity

CE 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)

AISWEI Technology 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.

Contact

If you have any technical problems with our products, please contact our service. Provide the following information to assist in providing 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

APAC

Service email: service.APAC@solplanet.net

LATAM

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:

Android



<https://play.google.com/store/apps/details?id=com.aiswei.international>

Scan QR code:


iOS



<https://apps.apple.com/us/app/ai-energy/id1607454432>

AISWEI Technology CO., Ltd

Documents / Resources

	<p>Solplanet ASW LT-G2 Series Three Phase String Inverters [pdf] Installation Guide ASW LT-G2 Series Three Phase String Inverters, ASW LT-G2 Series, Three Phase String Inverters, String Inverters, Inverters</p>
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References

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