

1-Phase PV Grid-Connected Inverter

Quick Installation Guide

SG2.0RS-S / SG2.5RS-S / SG3.0RS-S

SG3.0RS / SG3.6RS / SG4.0RS

SG5.0RS / SG6.0RS



1. Contents may be periodically updated or revised due to product development. The information in this guide is subject to change without notice. In no case shall this guide substitute for the user manual or related notes on the device.
2. Make sure to read over, fully understand and strictly follow the detailed instructions of the user manual and other related regulations before installing the equipment. The user manual can be downloaded by visiting the website at <http://support.sungrowpower.com/>; or it can be obtained by scanning the QR code on the side of the equipment or the back cover of this guide.
3. All installations must be performed by qualified personnel who should have training for installation and commissioning of electrical system, as well as dealing with hazards, have knowledge of the manual and of the local regulations and directives.
4. Before installation, check that the package contents are intact and complete compared to the packing list. Contact SUNGROW or the distributor in case of any damaged or missing components.
5. The cable used must be intact and well insulated. Operation personnel must wear proper personal protective equipment (PPE) all the time.
6. Any violation could result in personal death or injury or device damage, and will void the warranty.

Safety

The inverter has been designed and tested strictly according to international safety regulations. Read all safety instructions carefully prior to any work and observe them at all times when working on or with the inverter. Incorrect operation or work may cause:

- injury or death to the operator or a third party; or
- damage to the inverter and other properties.

Please follow the safety instructions related to the PV strings and the utility grid.

DANGER

Lethal voltage!

- PV strings will produce electrical power when exposed to sunlight and can cause a lethal voltage and an electric shock.
- Only qualified personnel can perform the wiring of the PV panels.






NOTICE







Danger to life from electric shock due to lethal voltage!

- All electrical connections must be in accordance with local and national standards.
- Only with the permission of the utility grid, the inverter can be connected to the utility grid.

Inverter

The icons on the inverter body are as follows.

 <p>Disconnect the inverter from all the external power sources before maintenance!</p>	 <p>Burn danger due to hot surface that may exceed 60 °C.</p>
 <p>Danger to life due to high voltages! Do not touch live parts for 10 minutes after disconnection from the power sources. Only qualified personnel can open and service the inverter.</p>	 <p>Read the user manual before maintenance!</p> <hr/>  <p>RCM mark of conformity.</p>

	TÜV mark of conformity.		CE mark of conformity. EU/EEA Importer.
	Do not dispose of the inverter together with household waste.		The inverter does not have a transformer.
	Additional grounding point.		UKCA mark of conformity.

DANGER

Danger to life from electric shocks due to live voltage

- Do not open the enclosure at any time. Unauthorized opening will void warranty and warranty claims and in most cases terminate the operating license.
- When the enclosure lid is removed, live components can be touched which can result in death or serious injury due to electric shock.

Lethal danger from electric shock due to possibly damaged inverter

- Only operate the inverter when it is technically faultless and in a safe state.
- Operating a damaged inverter can lead to hazardous situations that can result in death or serious injuries due to electric shock.

WARNING

Risk of inverter damage or personal injury

- Do not connect or disconnect the PV and AC connectors when the inverter is running.
- Wait at least 10 minutes for the internal capacitors to discharge after all electric devices are removed and the inverter is powered off.
- Ensure that there is no voltage or current before connecting or disconnecting the PV and AC connectors.

WARNING

All the warning labels and nameplate on the inverter body:

- must be clearly visible; and
- must not be removed, covered or pasted.

CAUTION

Risk of burns due to hot components!

- Do not touch any hot parts (such as the heat sinks) during operation. Only the DC switch and the LCD panel can safely be touched at any time.

NOTICE

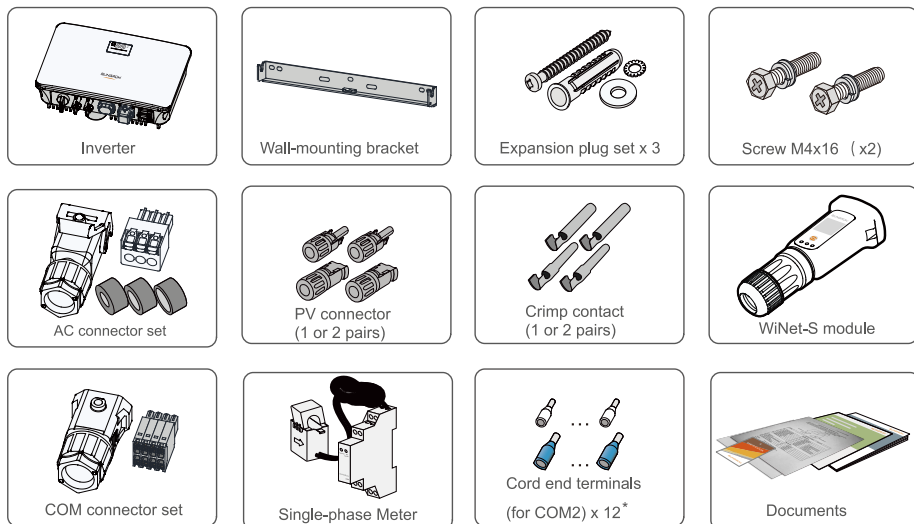
Only qualified personnel can perform the country setting. Unauthorized alteration may cause a breach of the type-certificate marking.

Risk of inverter damage due to electrostatic discharge (ESD)!

By touching the electronic components, you may damage the inverter. For inverter handling, be sure to:

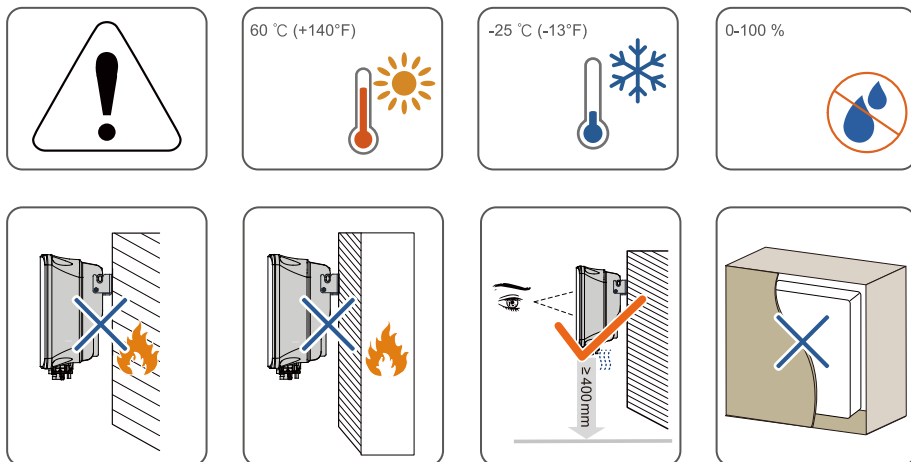
- avoid any unnecessary touching; and
- wear a grounding wristband before touching any connectors.

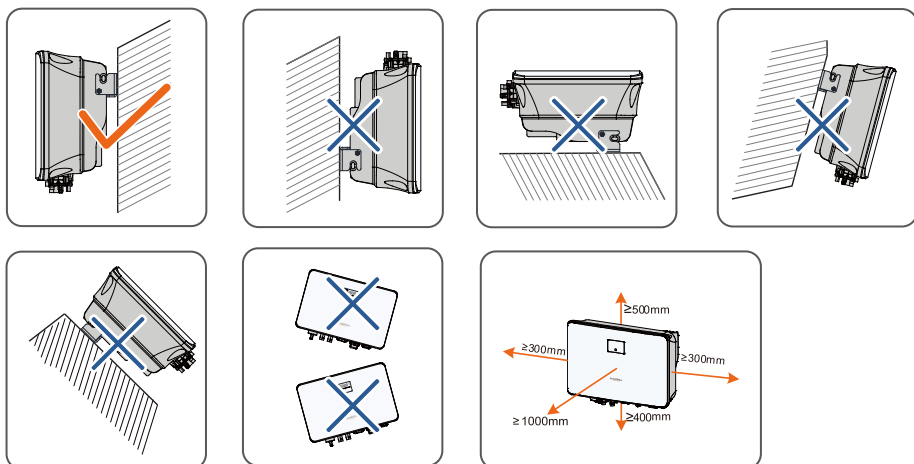
Scope of Delivery / Lieferumfang / Contenuto della fornitura / Contenu de la livraison /
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 entrega / Contenido suministrado



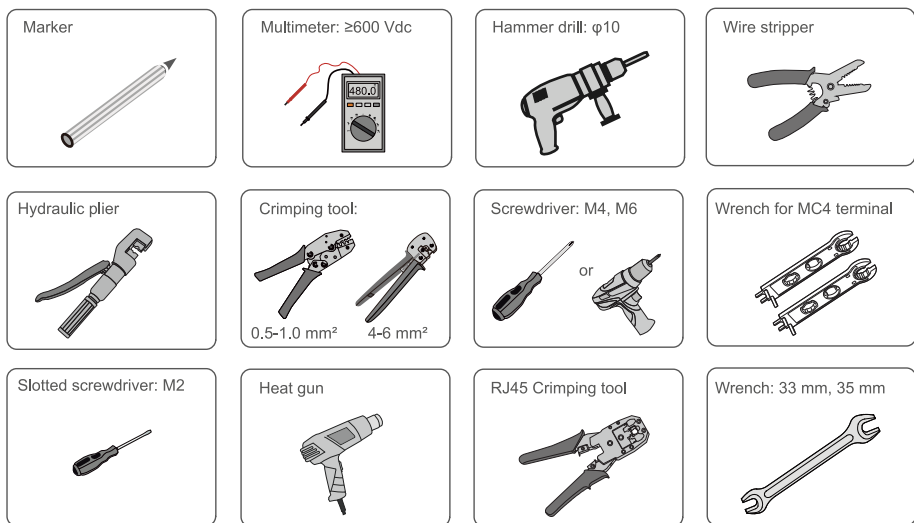
* The images shown here are for reference. The actual quantity is based on delivery.

Mounting location / Montageort / Luogo di montaggio / Lieu de montage / Montagelocatie /
 Miejsce montaży / Localização na parede / Ubicación de montaje / Local de montagem /
 Ubicación de montaje

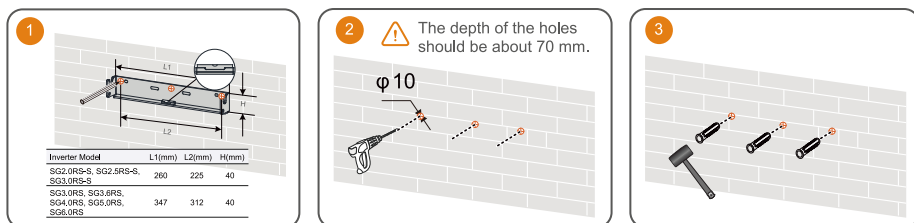


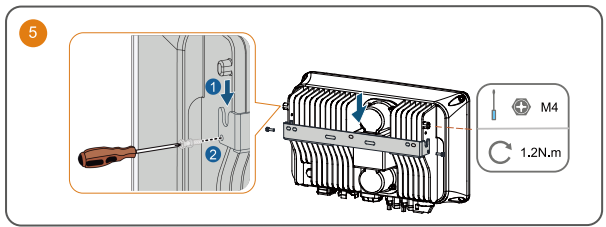
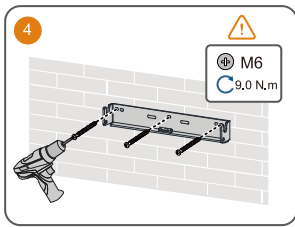


Installation tools / Werkzeug zur Installation / Strumenti di installazione/ Outils d'installation / Montagegereedschap / Narzędzia montażowe / Ferramentas de instalação /Herramientas de instalación / Ferramentas de instalação / Herramientas para la instalación



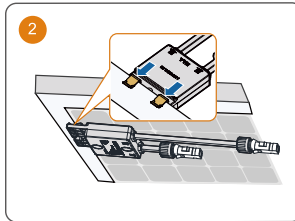
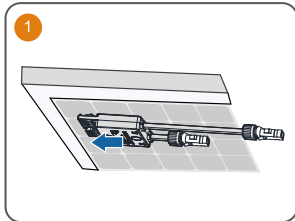
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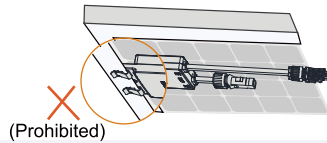
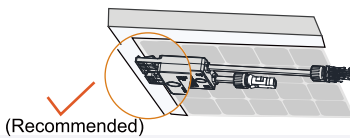


- Use appropriate mounting hardware for wall type.
- The image shown here is for reference only. The actual product received may differ.

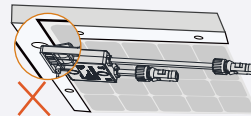
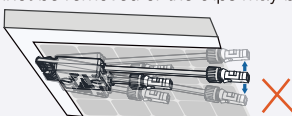
Optimizer:



- Please ensure that the optimizer is installed facing the back of the module. Otherwise, the clip may be damaged.

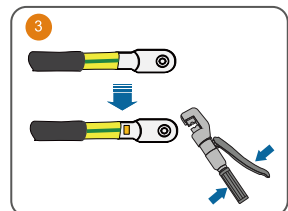
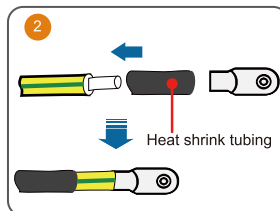
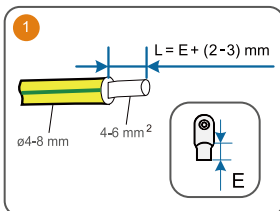


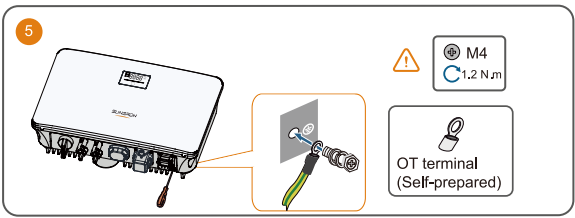
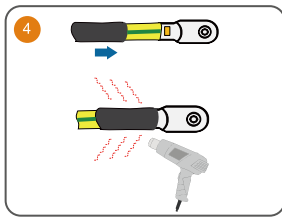
- Do not forcibly bend the clips when installing the optimizer by clips. Otherwise, the clip may be damaged.
- Do not clamp the optimizer into holes in the module frame during installation. Otherwise, the optimizer cannot be removed or the clips may be damaged.



- It is recommended to install optimizers on the same side of modules.
- Do not clamp and remove the optimizer multiple times. Otherwise, the clip may become loose, affecting normal use.

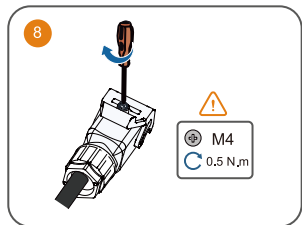
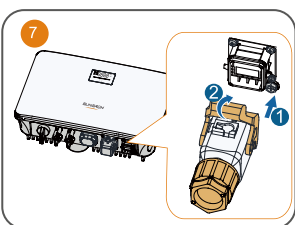
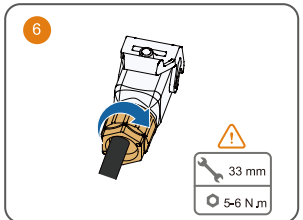
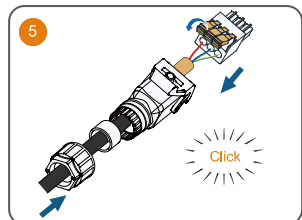
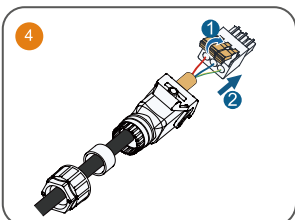
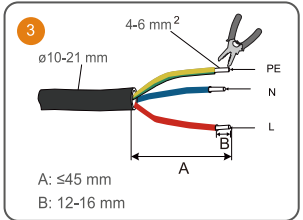
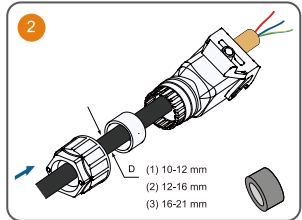
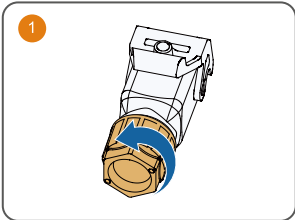
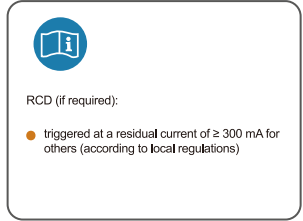
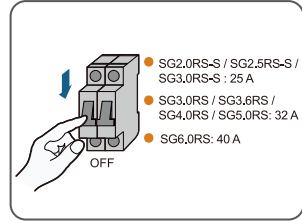
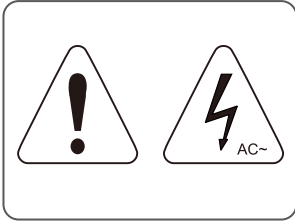
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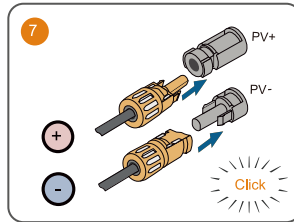
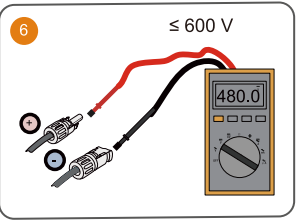
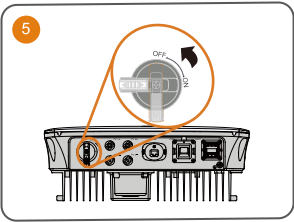
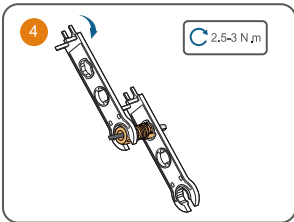
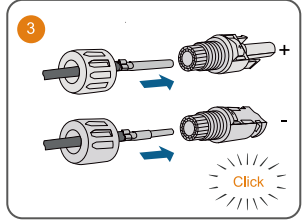
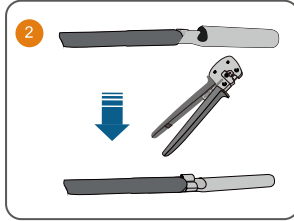
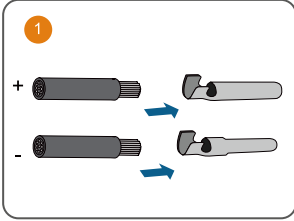
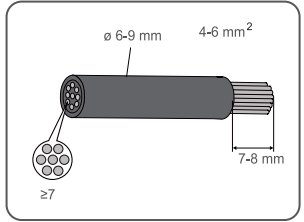
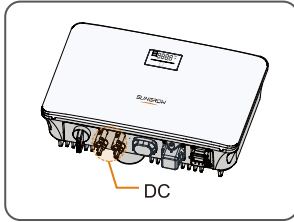
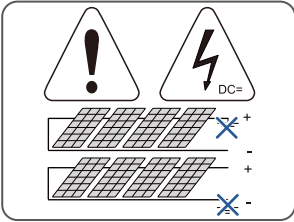
AC

It is recommended to use heavy duty conduits when run cables through Cavity walls, or lay out cables with corresponding conduits. A RCD is not required if either of these two installation methods is adopted according to the local standard AS3000-2018. (For "AU" and "NZ")

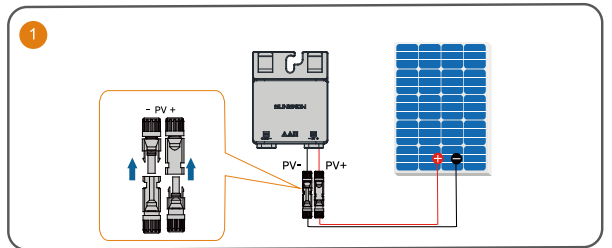
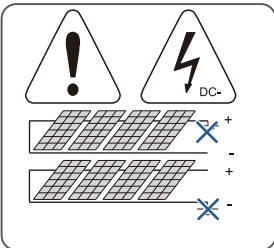


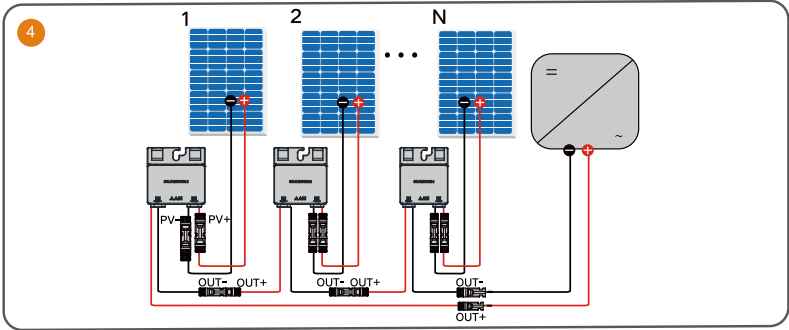
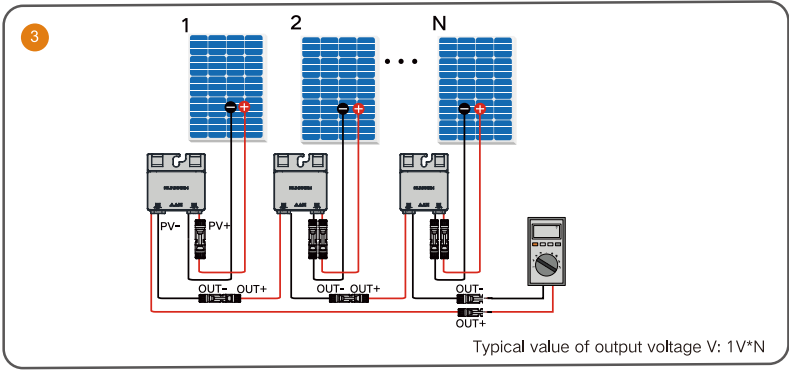
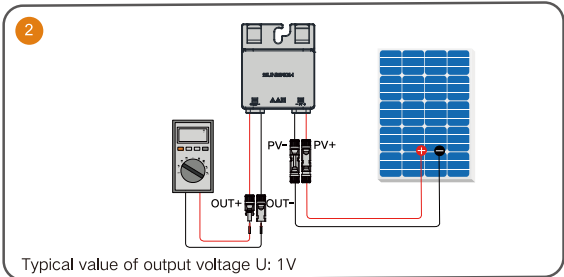
DC

It is recommended to use heavy duty conduits when run cables through Cavity walls, or lay out cables with corresponding conduits.
 A RCD is not required if either of these two installation methods is adopted according to the local standard AS3000-2018.
 (For "AU" and "NZ")

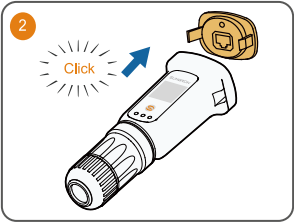
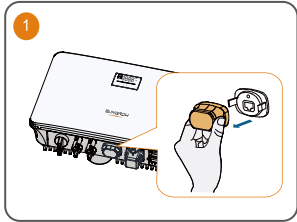


Optimizer:

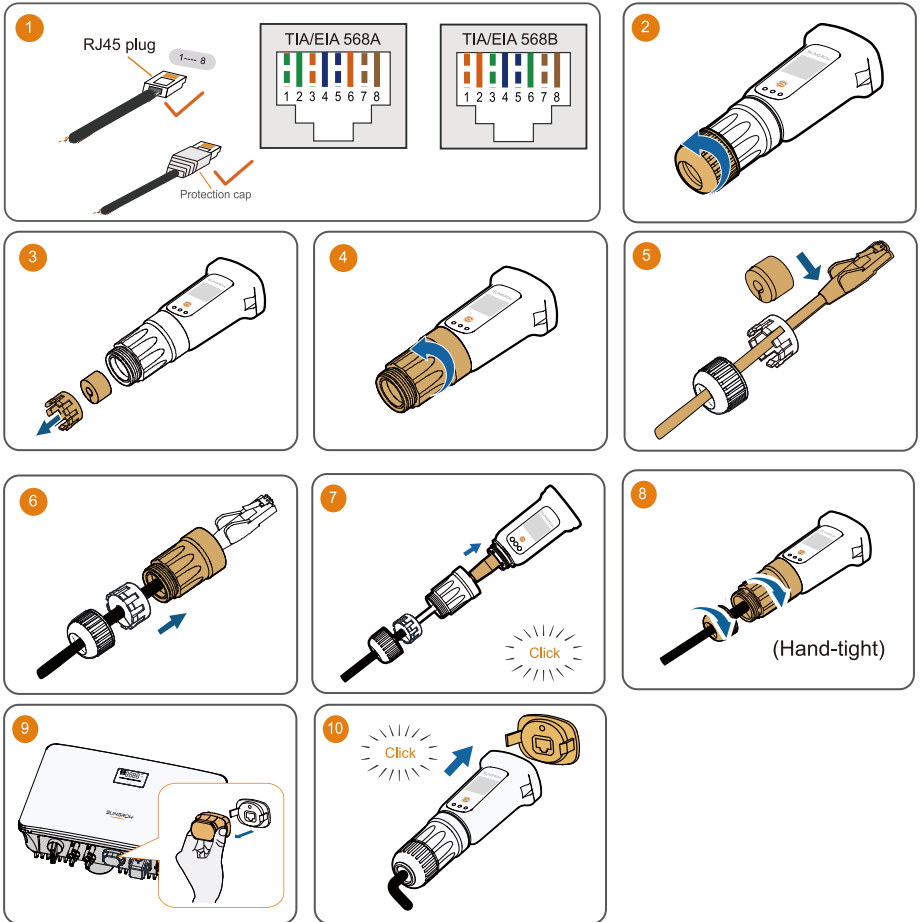




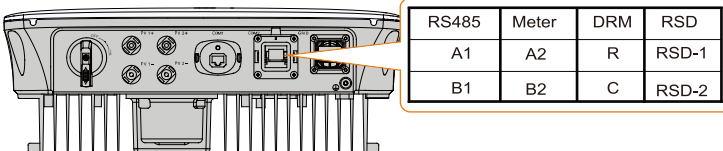
WLAN



Ethernet

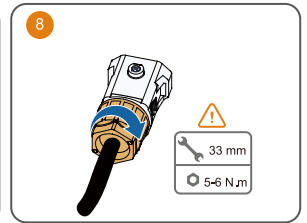
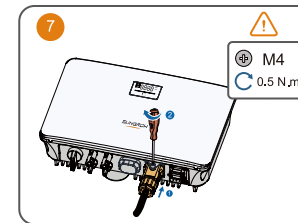
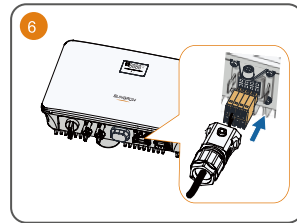
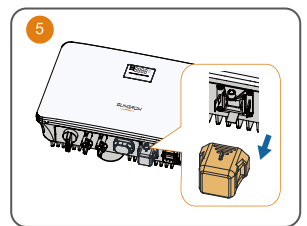
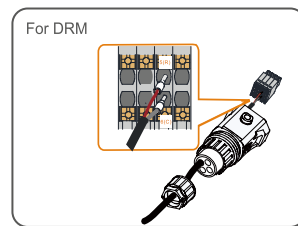
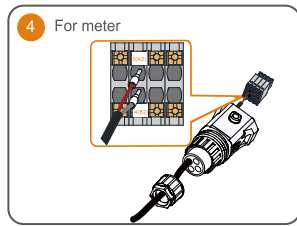
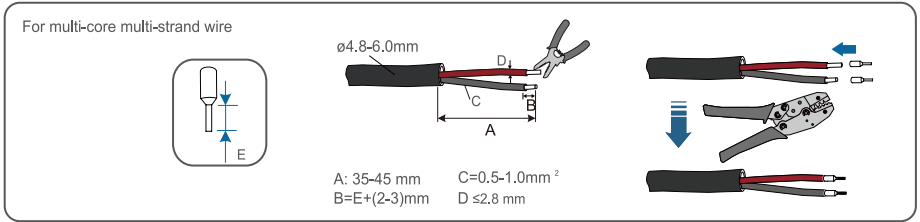
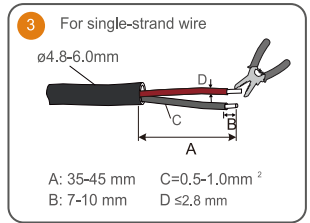
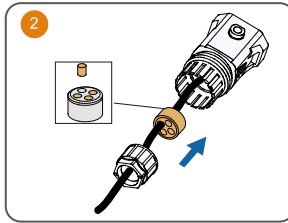
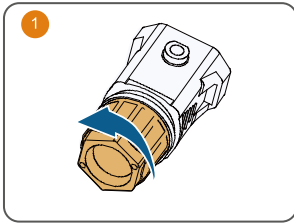


COM2

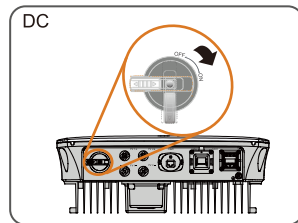
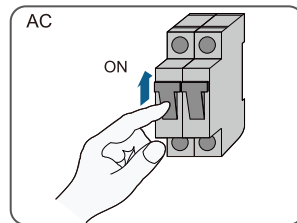


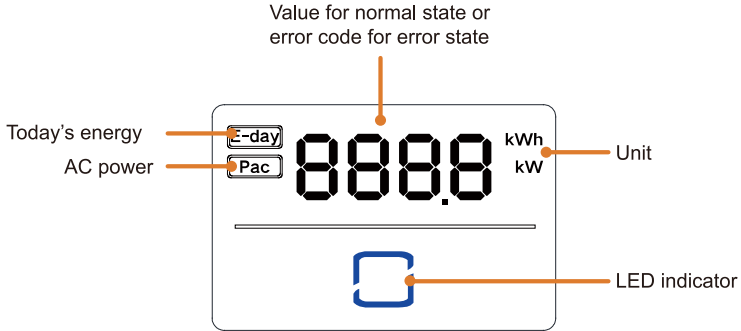
Label	Description
RS485 (A1, B1)	Reserved
Meter (B2, A2)	Smart energy meter interface
DRM (R, C)	For external Demand Response Enabling Device ("AU"/"NZ")
RSD (RSD-1, RSD-2)	Reserved

- The connection procedure for meter and DRM are the same. Take meter connection as an example.






Power on / Ein / Accensione / Allumer / Schakel in / Włacznik / Ligação / Encendido / Ligar / Encendido





- In normal state, the E-day and Pac information will be displayed alternately. Also you can touch the LED indicator to switch the information.
- In error state, touch the LED indicator to view multiple error codes.
- If there is no operation for 5 minutes, the display screen will be off. Touch the LED indicator to activate it.

LED indicator	LED state	Definition
	ON	The inverter is normally running.
	Flashing	The inverter is at standby or startup state (not feeding power into the grid).
	ON	A system fault has occurred.
	OFF	Both the AC and DC sides are powered down.