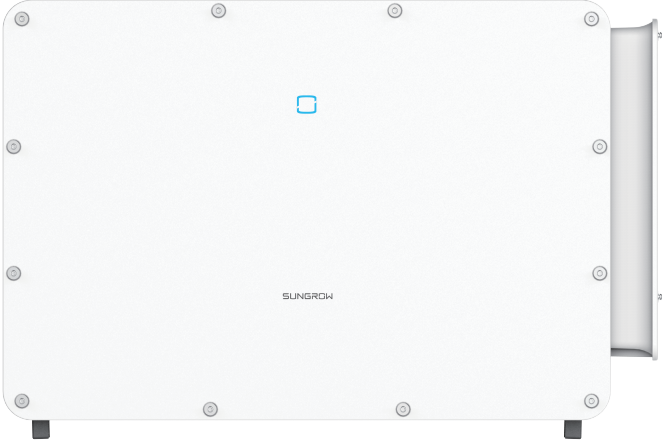
SUNGROW
Clean power for all

Quick Installation Guide

PV Grid-Connected Inverter

SG510HX



SG510HX-QIEN-Ver11-202609

EN

- 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.
- Make sure to read over, fully understand and strictly follow the detailed instructions of the user manual and other related regulations. Visit http://www.sungrowpower.com/, choose "PV Inverters" and search for the device model on the"Products" tab page to view or obtain the user manual.
- All operations can be performed only by qualified personnel, that must be trained in the installation and commissioning of the electrical system, as well as the dealing with hazards, have knowledge of the manual and of the local regulations and directives.
- Before installation, check that the package contents are intact and complete against the packing list. Contact SUNGROW or the distributor in case of any damaged or missing components.
- The cable must be intact and well insulated. Operation personnel must wear proper personal protective equipment (PPE) all the time.
- Any violation could result in personal death or injury or device damage, and will void the warranty.

Safety

Please follow the safety instructions related to the PV strings and the utility grid. Otherwise, SUNGROW shall not be held liable for any damage caused.

⚠ 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.
- 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.
- Do not open the enclosure at any time. Unauthorized opening will void guarantee 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.

⚠ WARNING

All the warning labels and nameplate on the inverter body must be clearly visible and not be removed, covered or pasted.

⚠ CAUTION

Risk of burns due to hot components!

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

⚠ NOTICE

Only qualified personnel can perform the country setting.

Unauthorized alteration of the country setting may cause a breach of the type-certificate marking.

Disconnect the inverter from all the external power sources before service!	There is a danger from a hot surface that may exceed 60°C.
Danger to life due to high voltages! Do not touch live parts for 35 minutes after disconnection from the power sources. Only qualified personnel can open and maintain the inverter.	Do not dispose of the inverter together with household waste.
	UKCA mark of conformity.
CE mark of conformity. EU/EEA Importer	TUV mark of conformity.
Additional grounding point.	Read the user manual before maintenance!
RoHS labeling The product complies with the requirements of the applicable EU directives.	RCM mark of conformity.

EU Declaration of Conformity

within the scope of the EU directives

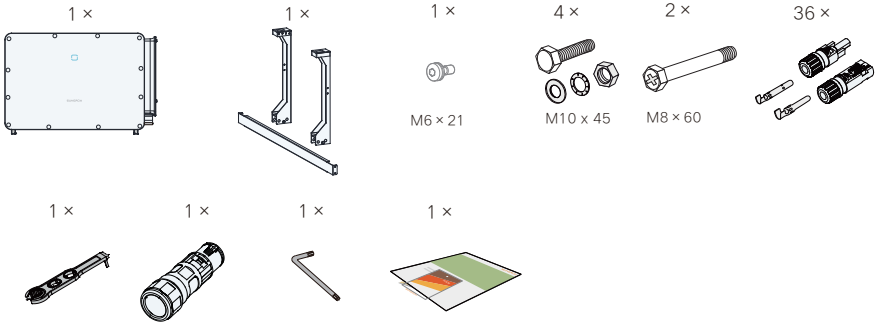
- Low Voltage Directive 2014/35/EU (LVD)
- Electromagnetic compatibility 2014/30/EU（EMC）
- Restriction of the use of certain hazardous substances 2011/65/EU and 2015/863/EU (RoHS)

SUNGROW confirms herewith that the products described in this document are in compliance with the fundamental requirements and other relevant provisions of the abovementioned directives. The entire EU Declaration of Conformity can be found at support.sungrowpower.com.

Security Declaration

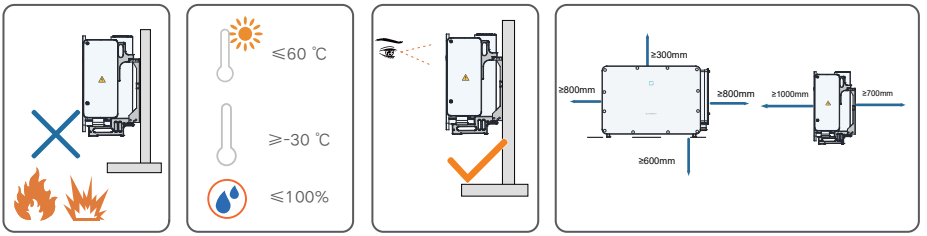
For details on the product's network security vulnerability response process and vulnerability disclosure, please scan the QR code on the right or visit the following website:
https://en.sungrowpower.com/security-vulnerability-management

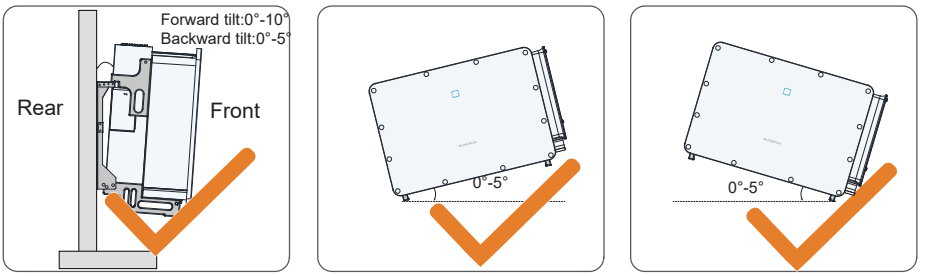
Scope of Delivery

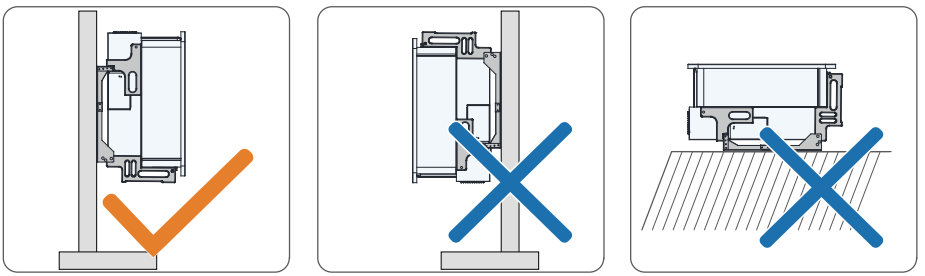


* The images shown here are for reference. The actual product and quantity are based on delivery.

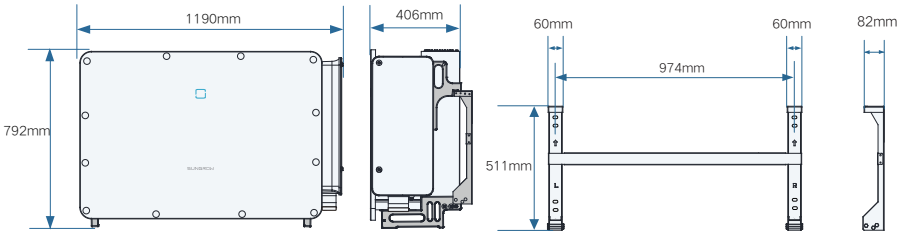
Mounting location



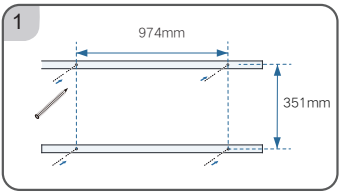


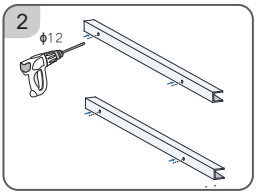


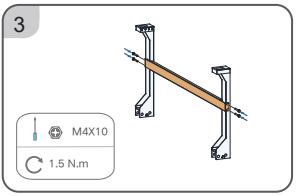
Dimension

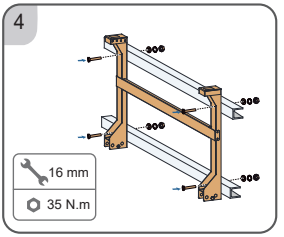


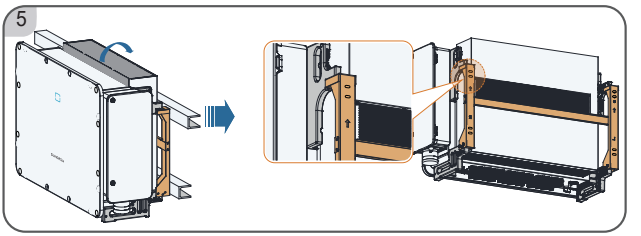
Mounting

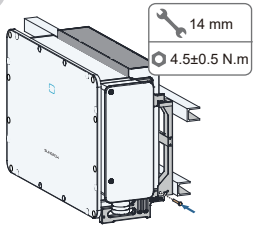




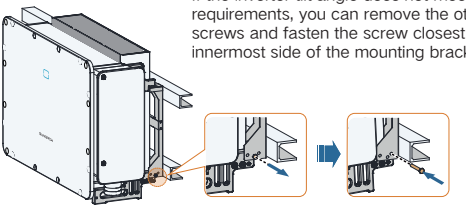








Fasten the bottom screw on the inverter mounting bracket.

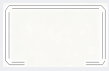


If the inverter tilt angle does not meet the requirements, you can remove the other screws and fasten the screw closest to the innermost side of the mounting bracket.

The inverter allows for a 5 ° forward adjustment but does not support left or right adjustments.

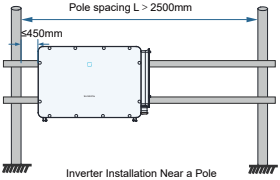
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The recommended crossbeam dimensions are as follows:

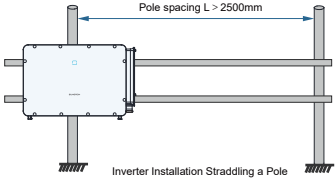
Cross-Section Shape	Recommended Dimensions	Remarks
	Cross-sectional dimensions > 100 × 40 × 15 mm; material thickness ≥ 2.5 mm. Installation with the open side facing rearward is recommended. Avoid installation with the open side facing downward.	1. Verify that, under a 250 kg load (twice the inverter weight), the crossbeam deflection is < 15 mm and the stress in the crossbeam is below the yield strength of its material. 2. When the pole spacing is 2.5–4.0 m, it is recommended that the inverter be installed near a pole or that it straddle a pole. 3. When the pole spacing is > 4.0 m, it is recommended that the inverter straddle a pole.
	Use 6.3# channel steel or larger. Installation with the open side facing rearward is recommended. If the crossbeam length is > 2000 mm, avoid installation with the open side facing downward.	
	Cross-sectional dimensions > 50 × 50 mm; material thickness ≥ 2.5 mm.	
	Cross-sectional dimensions > 100 × 80 mm; material thickness ≥ 2.5 mm. Installation with the open side facing rearward is recommended. If the crossbeam length is > 2000 mm, avoid installation with the open side facing downward.	

When the pole spacing L > 2500 mm, channel steel or square steel tubing is recommended.

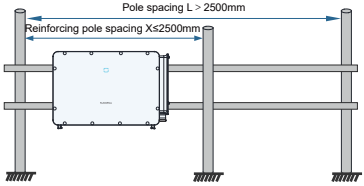
The inverter may be installed near a pole, may straddle a pole, or may be installed with an additional pole.



Inverter Installation Near a Pole

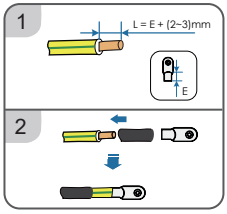


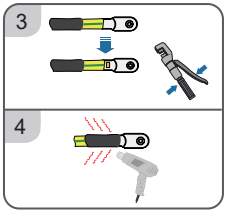
Inverter Installation Straddling a Pole

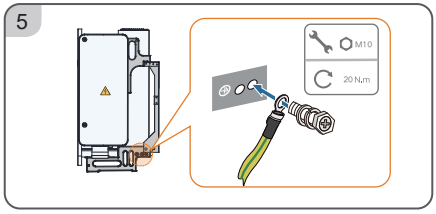


Inverter Installation with an Additional Pole

PE Connection

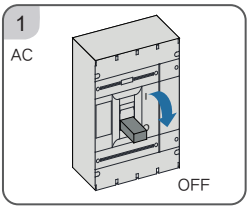


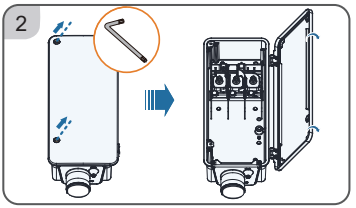


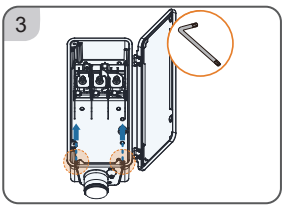


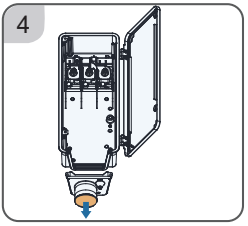
One-wire-per-phase Wiring (with Multi-core Cable)

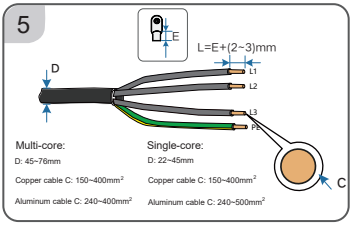
The description is given by using four-core cable as an example.

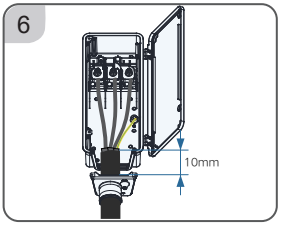


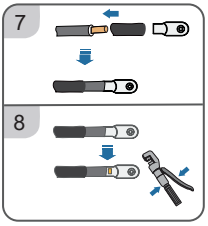


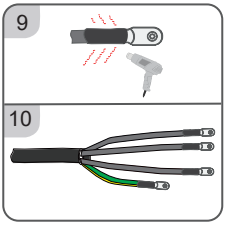


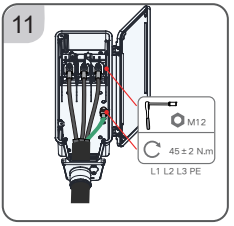


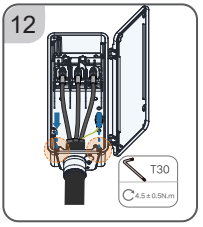


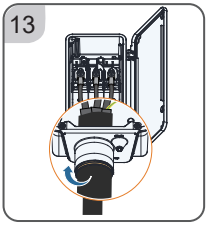


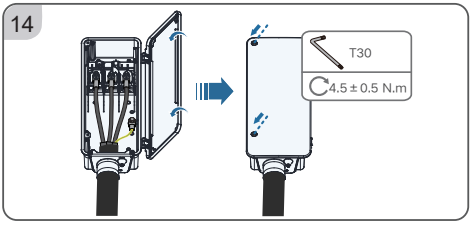






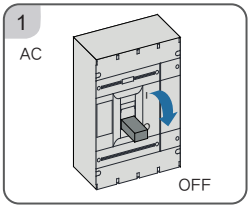


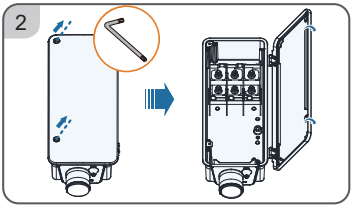


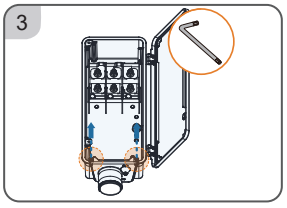


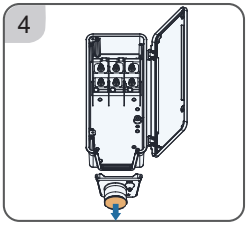
One-wires-per-phase Wiring, Duplex Junction Box (with Multi-core Cable)

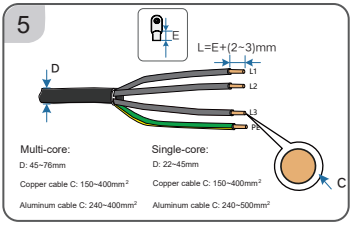
The description is given by using four-core cable as an example.

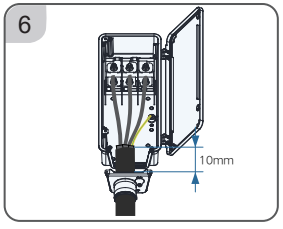


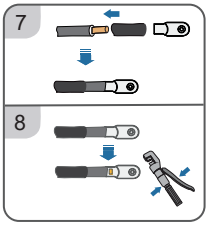


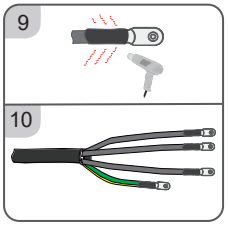


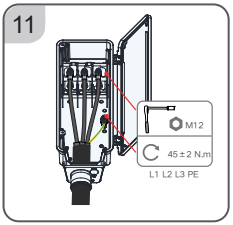


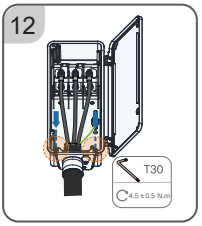


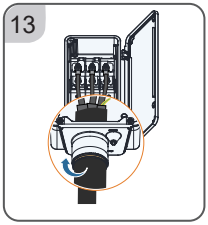


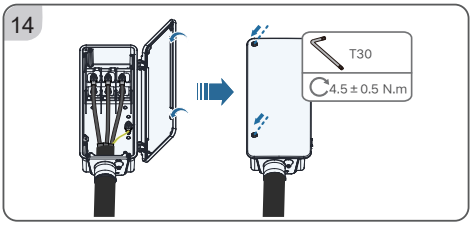






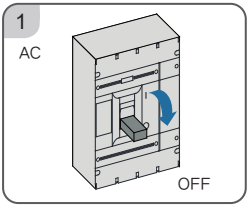


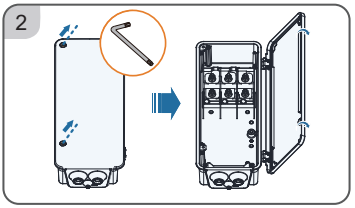


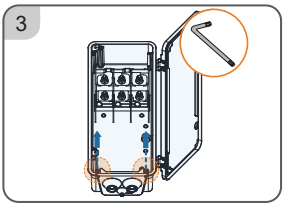


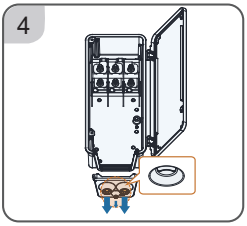
Two-wires-per-phase Wiring, Duplex Junction Box (with Multi-core Cable)

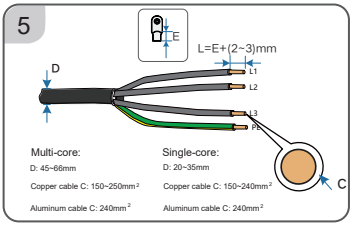
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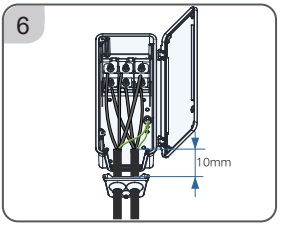


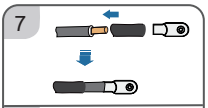


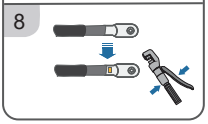


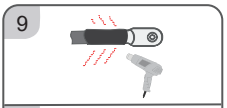


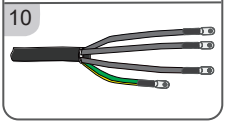


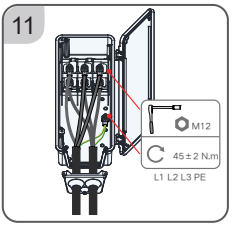


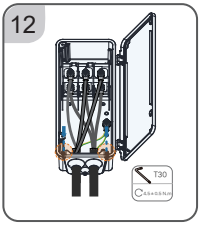


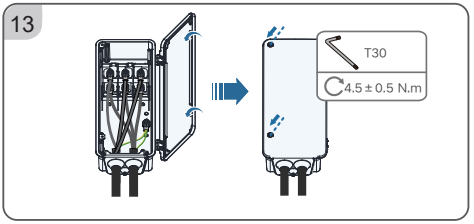




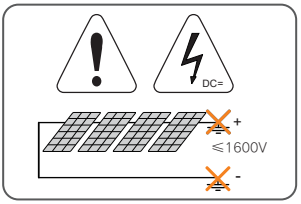


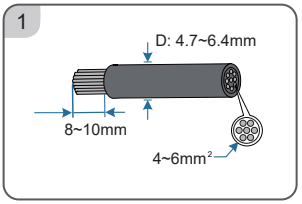


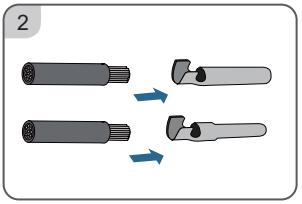


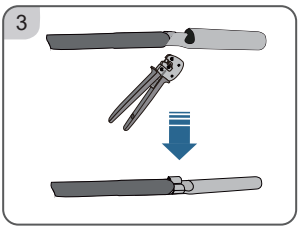


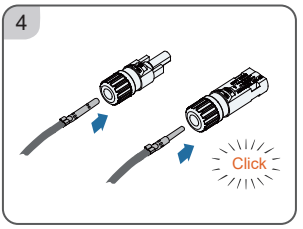
DC Connection

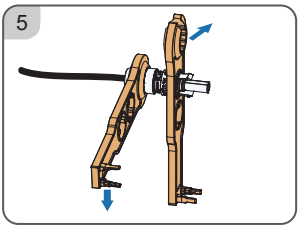


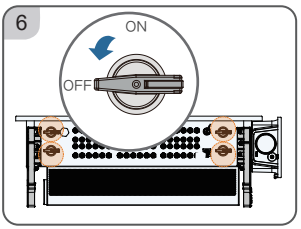


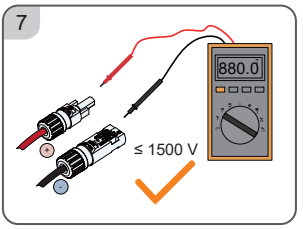


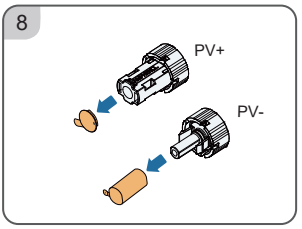


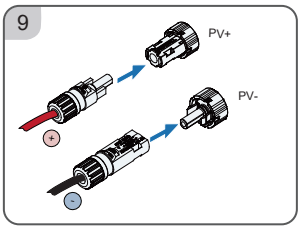




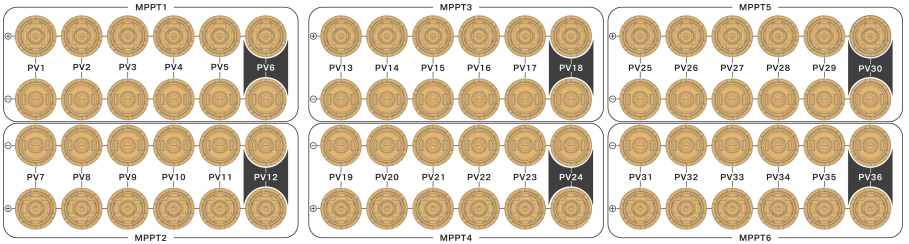




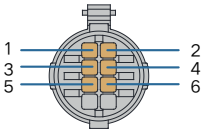




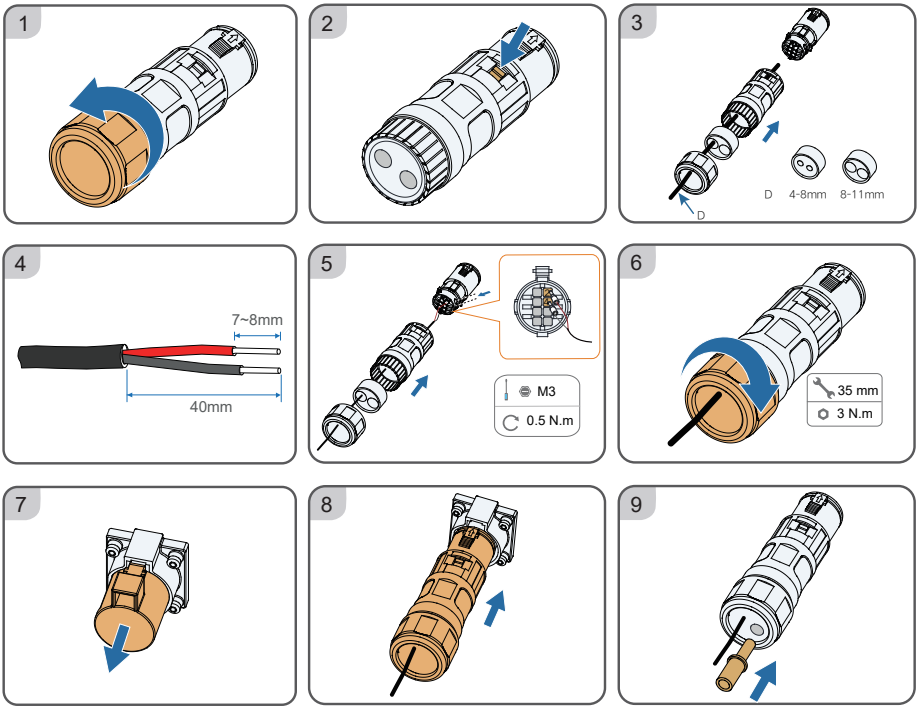
- Close off the unused PV terminals with the waterproof stopper plugs.
- The PV1 terminal must be used for connection.
- Always make sure the PV terminals connected are relatively evenly distributed across the MPPTs.
- Always connect terminals in the white area first. Connect the black area terminals only when the white area terminals are fully occupied.



RS485 Communication Connection

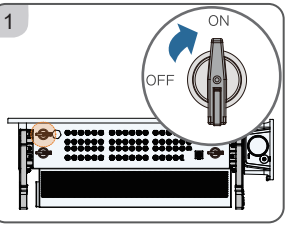


Port	PIN	Definition	Description
RS485_1	1	RS485A IN, RS485 differential signal+	Used for cascading inverters or connecting to devices such as the Data Logger.
	2	RS485A IN, RS485 differential signal+	
	3	RS485B OUT, RS485 differential signal-	
	4	RS485B OUT, RS485 differential signal-	
PE	5	PE, shielding ground	—
	6	PE, shielding ground	

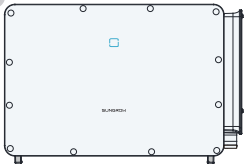


Power on

1

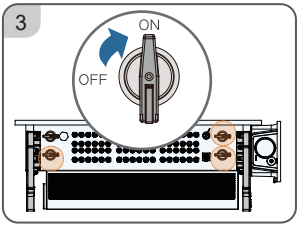


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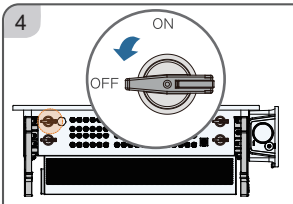


LED Indicator: Blue Slow blink

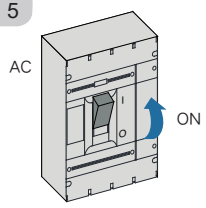
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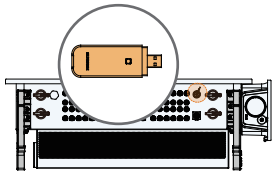
4



5



6



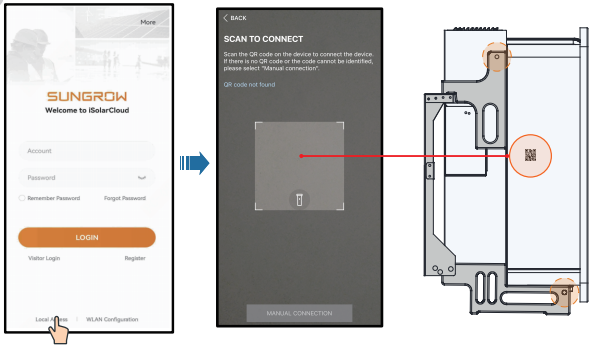
Insert the B-Link Bluetooth adapter into the USB port.

7



App

8

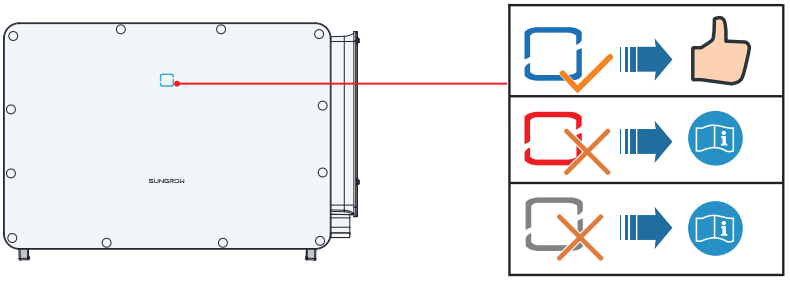


9



*Scan the QR code to access the App User Manual and complete software commissioning by referring to the Device Commissioning section.

LED Indicator



More information in the QR code or
at http://support.sungrowpower.com/

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