




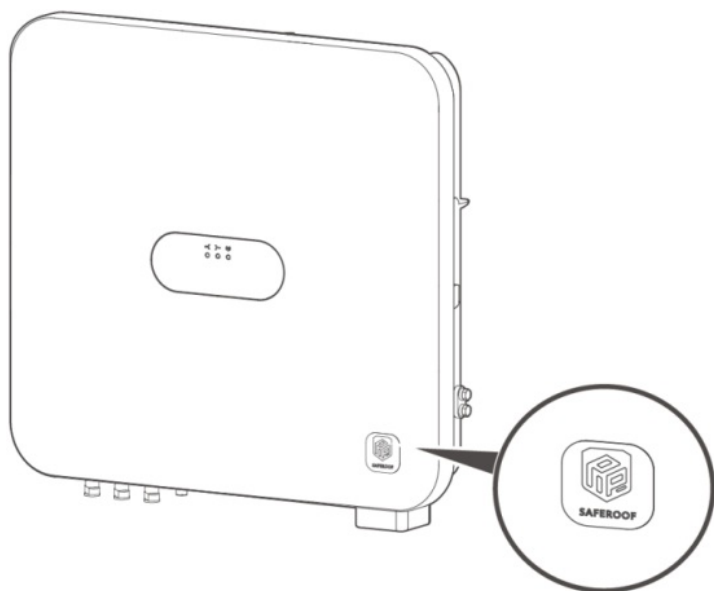
HUAWEI SUN5000 Smart String Inverter User Guide

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HUAWEI SUN5000 Smart String Inverter User Guide



Optimizers must be configured for all PV modules connected to the SUN5000 inverter. Otherwise, the inverter cannot be started.

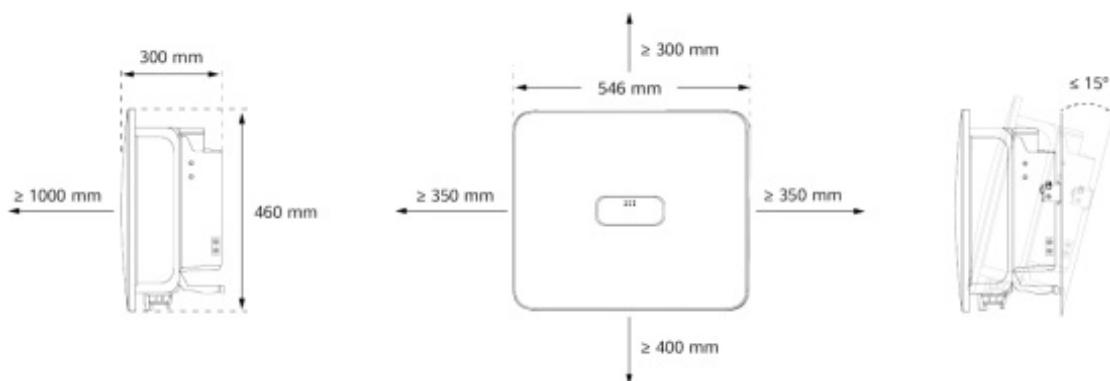


Before installing the equipment, read the user manual carefully to get familiar with product information and safety precautions. The product warranty does not cover equipment damage caused by failure to follow the storage, transportation, installation, and usage guidelines specified in this document and the user manual. Scan the QR code on the equipment to view the user manual and safety precautions. The information in this document is subject to change without notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.

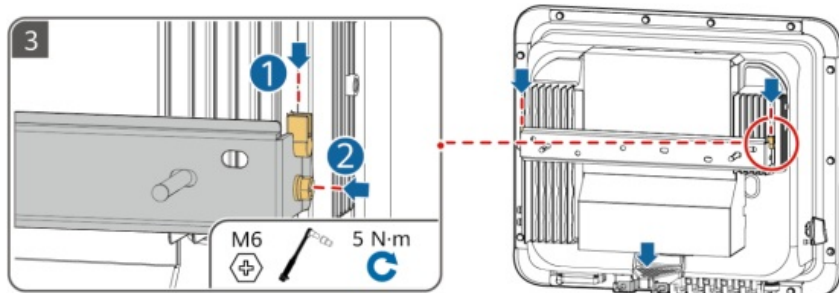
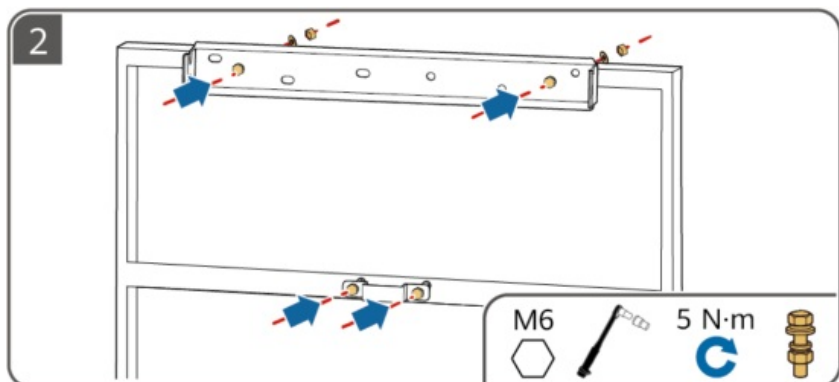
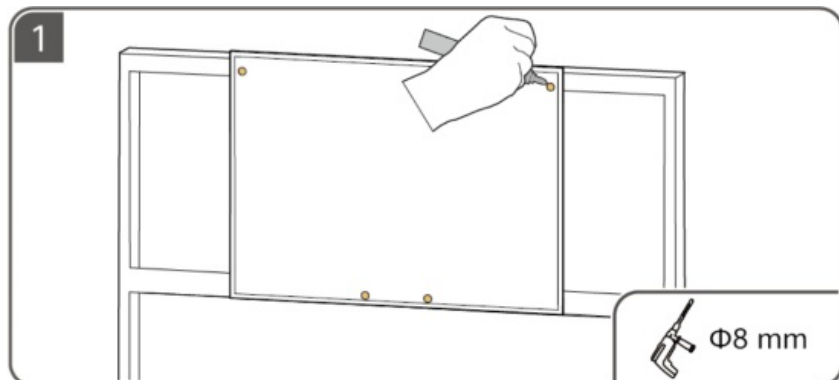
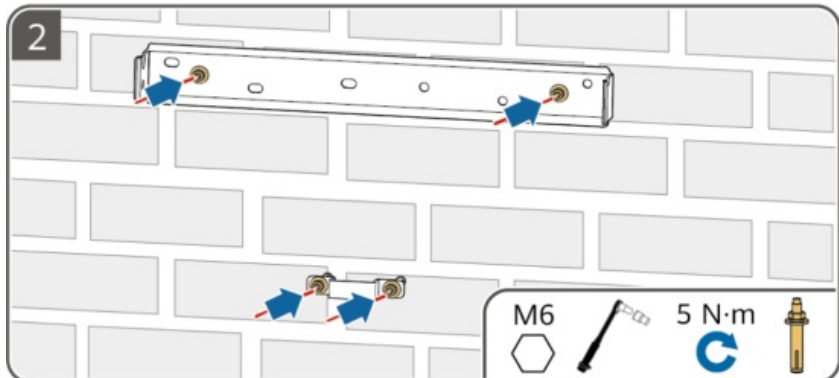
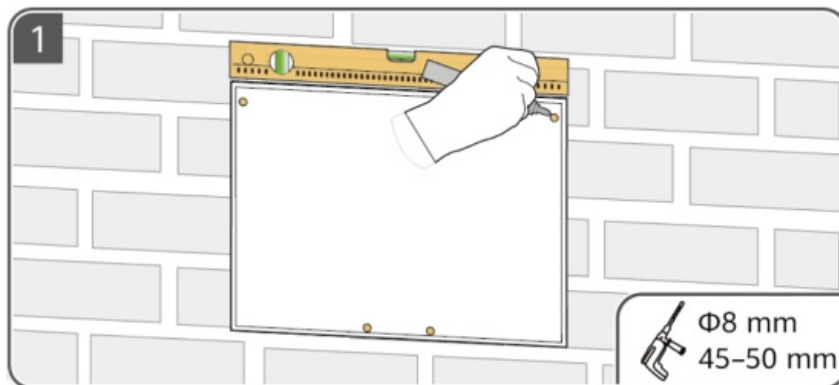
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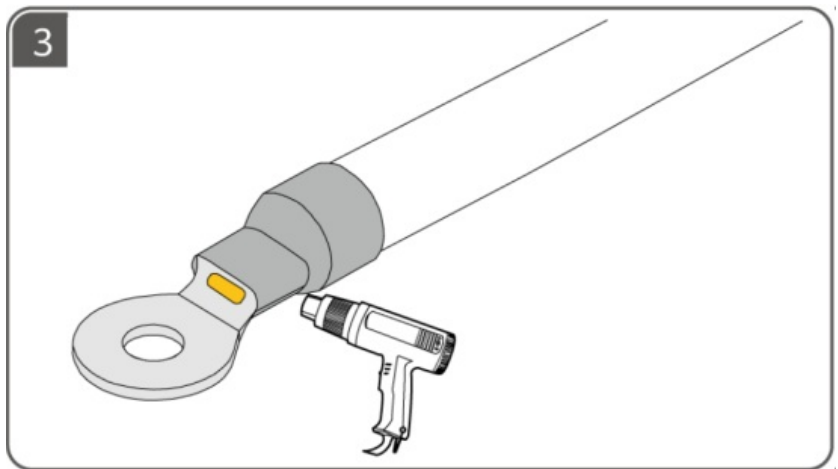
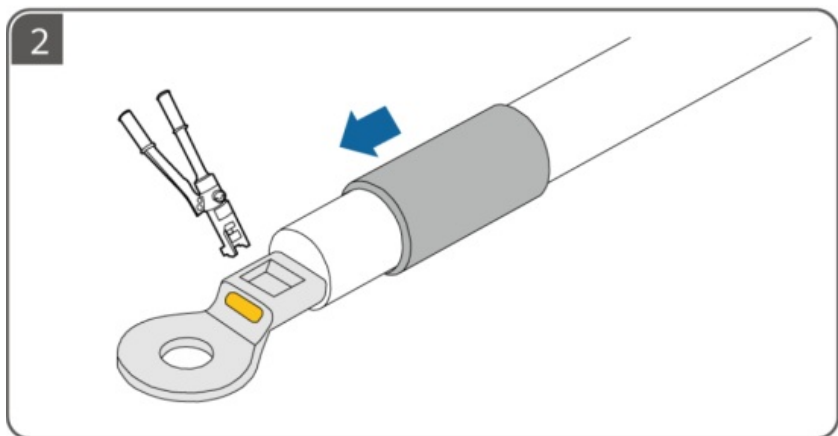
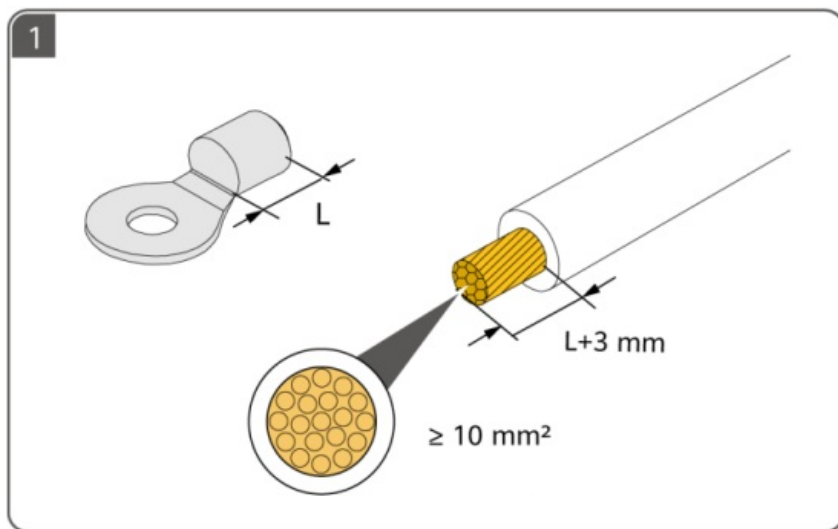
Installation Requirements



Installing the Device

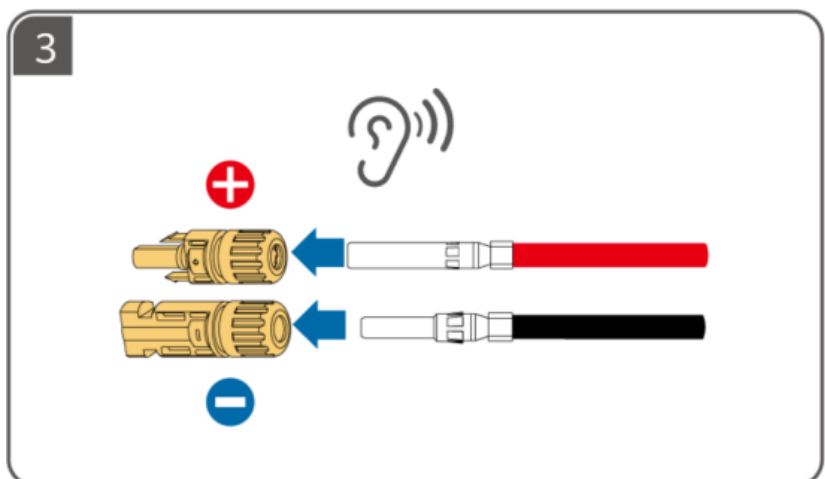
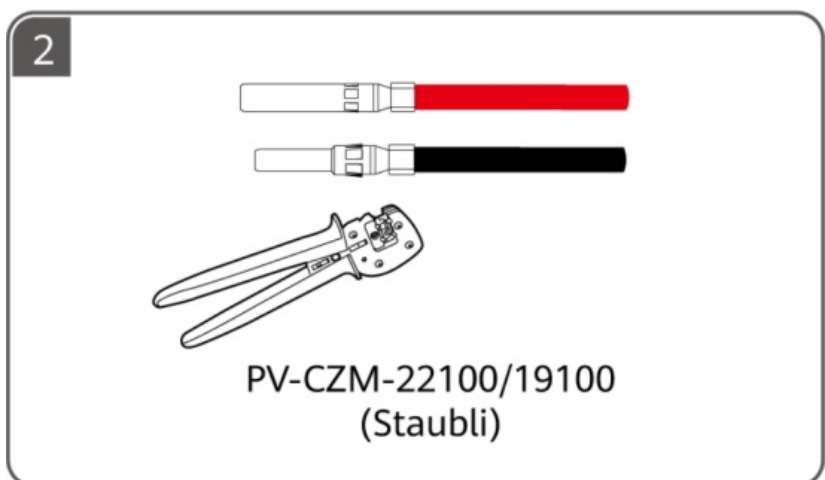
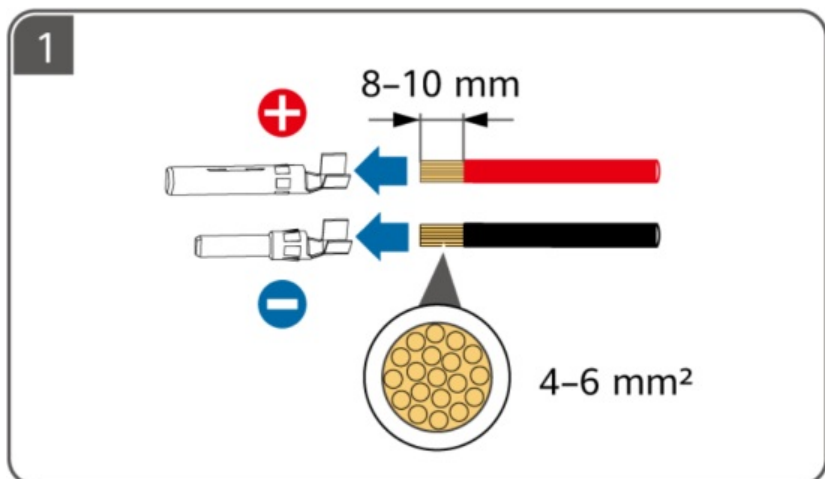
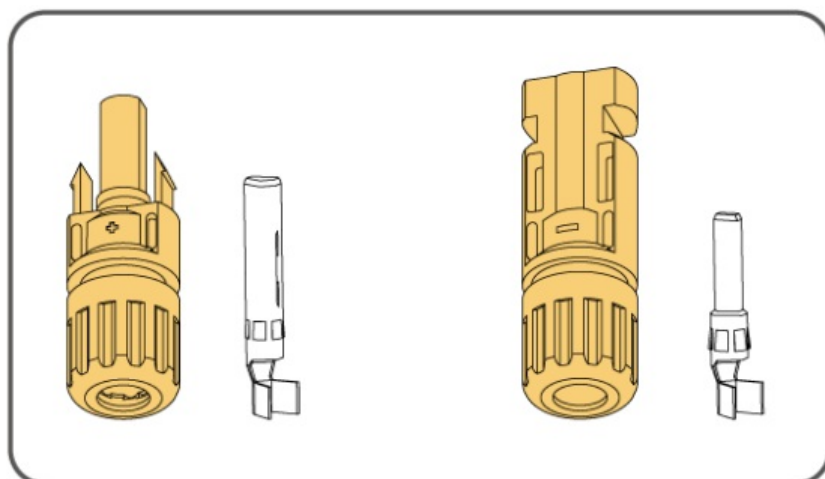


Preparing a PE Cable

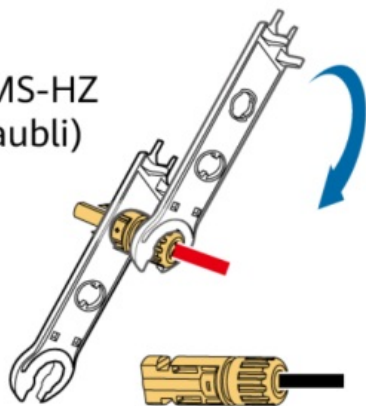


Preparing DC Cables

Use the Staubli MC4 positive and negative metal terminals and DC connectors supplied with the inverter.

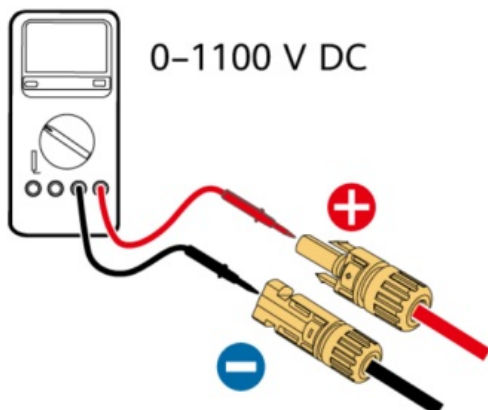


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PV-MS-HZ
(Staubli)

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0–1100 V DC

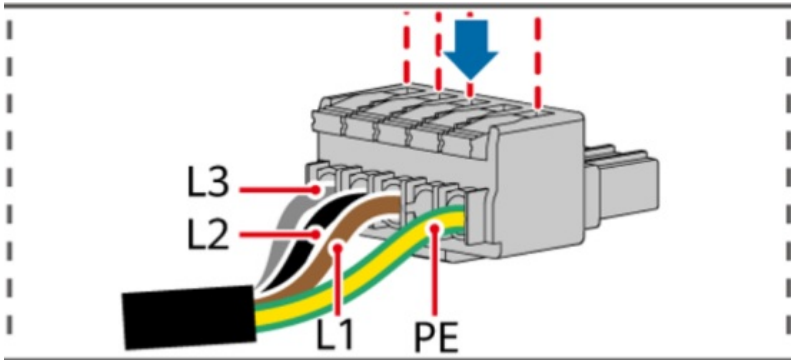
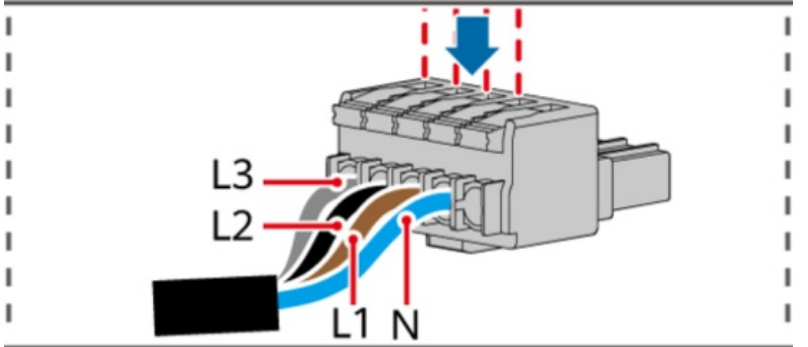
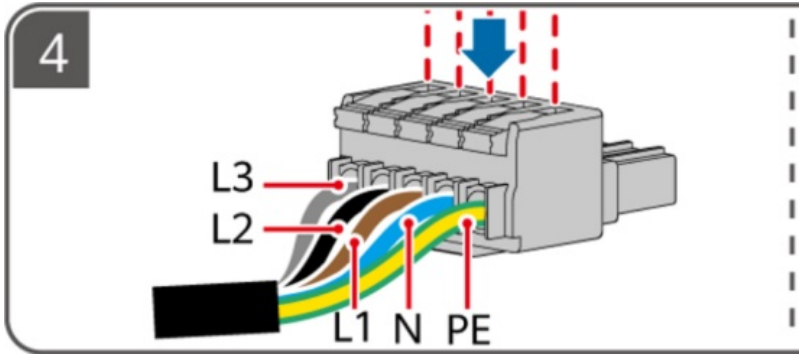
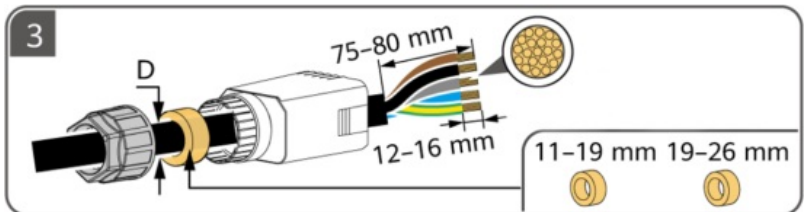
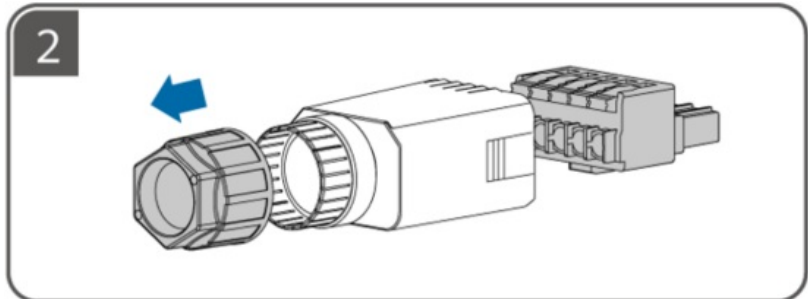
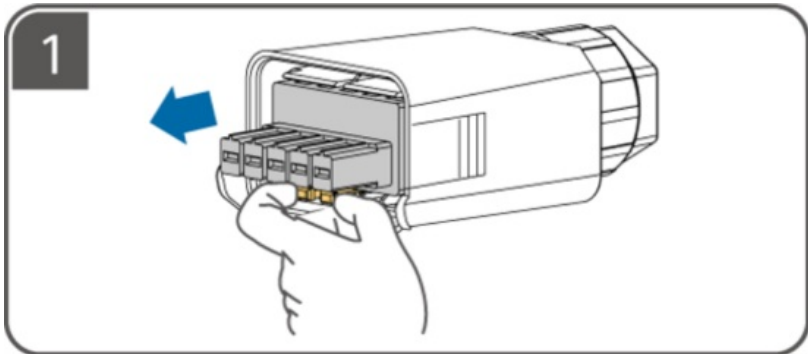


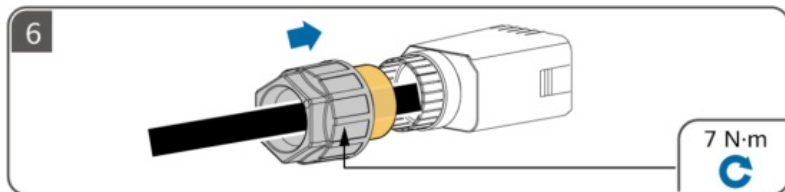
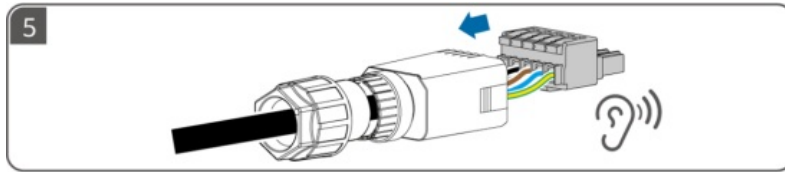
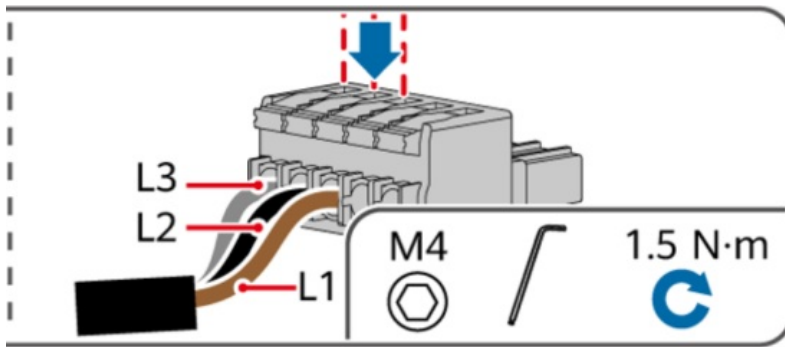
Preparing an AC Cable

- ⚠ ⚠ Do not connect loads between the inverter and the AC switch that directly connects to the inverter. Otherwise, the switch may trip by mistake.
- If an AC switch is used with specifications beyond local standards, regulations, or Huawei's recommendations, the switch may fail to turn off in a timely manner in case of exceptions, causing serious faults.
- Each inverter must be equipped with an AC output switch. Multiple inverters cannot connect to the same AC output switch.
- To ensure that the inverter can be safely disconnected from the power grid when an exception occurs, connect an AC switch to the AC side of the inverter. Select an appropriate AC switch in accordance with local industry standards and regulations.

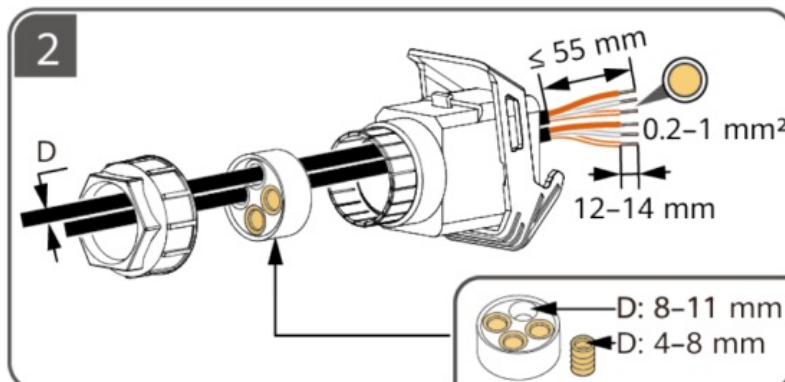
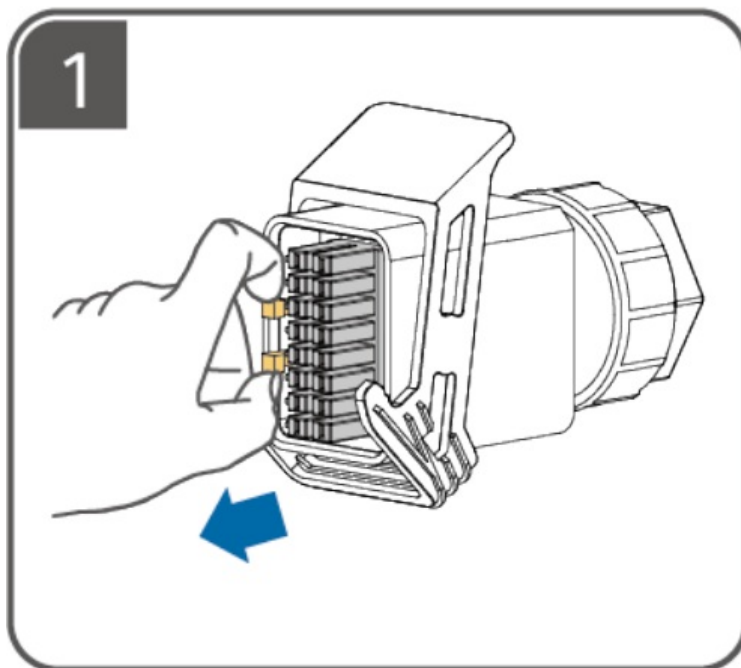
Component	Description	Rated Voltage	Rated Current	
AC switch	Recommended: three-phase AC circuit breaker	≥ 415 V AC	On-grid 17K: 40 A 25K: 50 A or 63 A	On/Off-grid 17K–25K: 50 A or 63 A

trip the insulation layers of the AC output power cable by the recommended length (12–16 mm) to ensure that the cable conductors are completely inside the conductor insertion points and no insulation layer is pressed into the conductor insertion points. Tighten the cable conductors to a torque of 1.5 N·m. Otherwise, the device may fail to run properly or be damaged during operation.

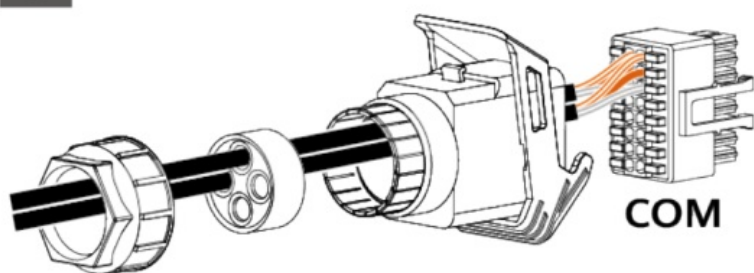




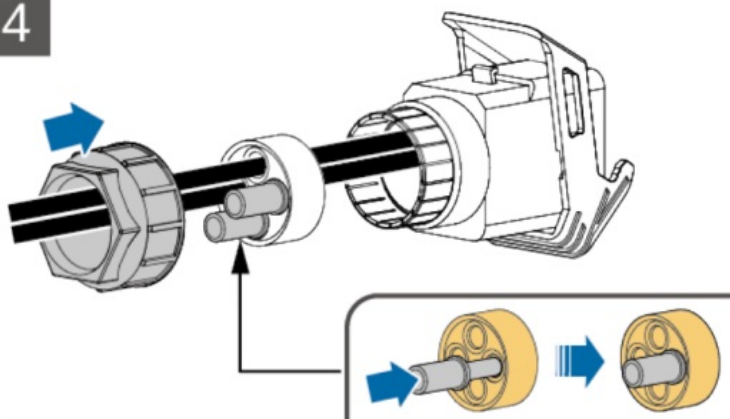
Preparing Signal Cables



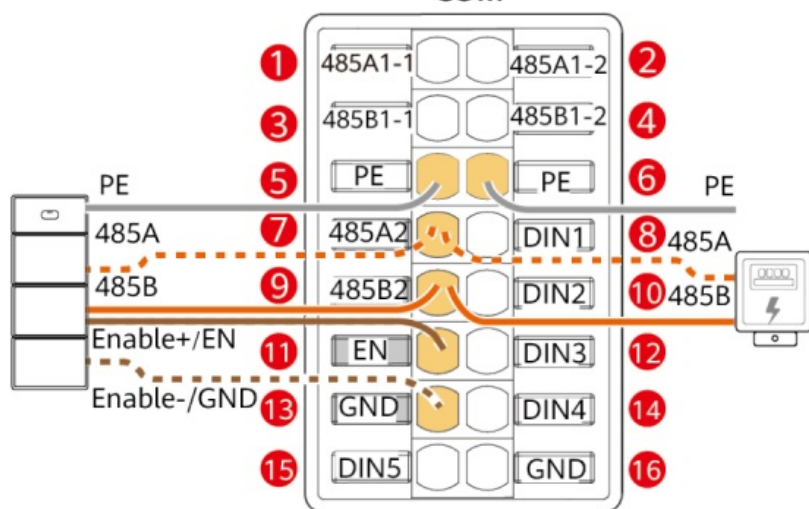
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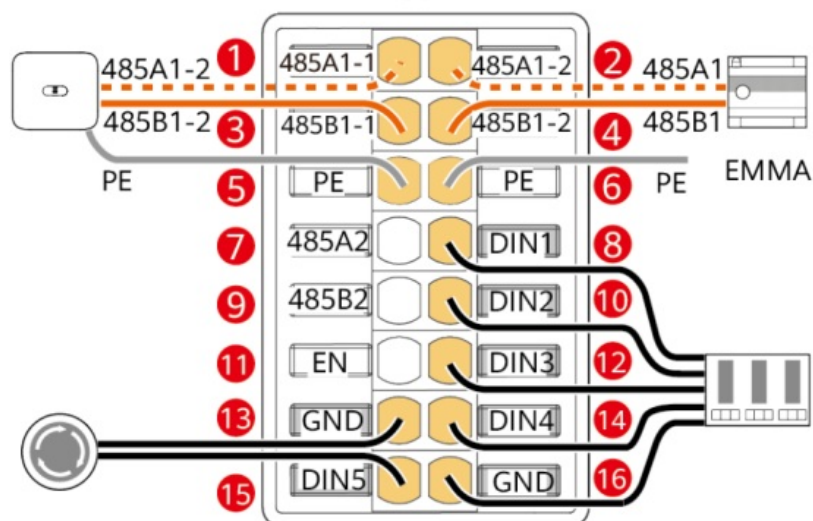
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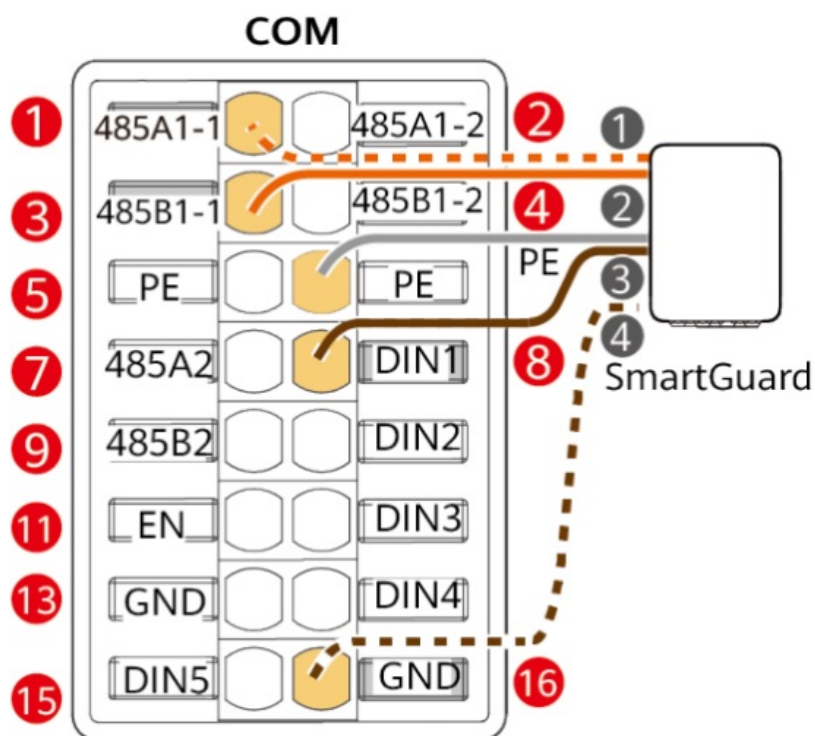


COM



COM



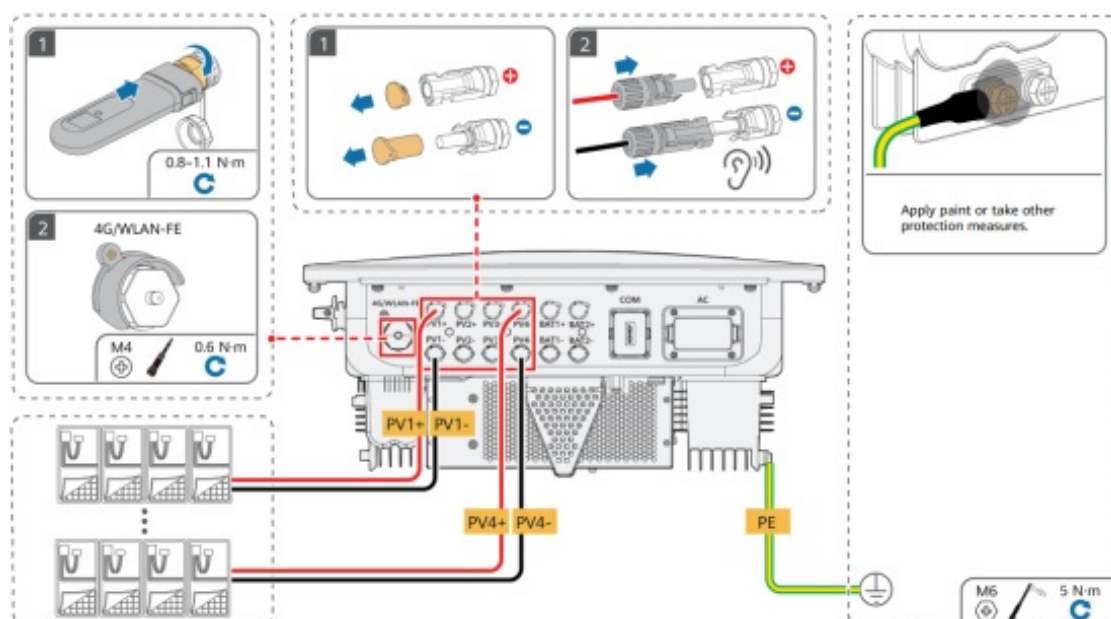


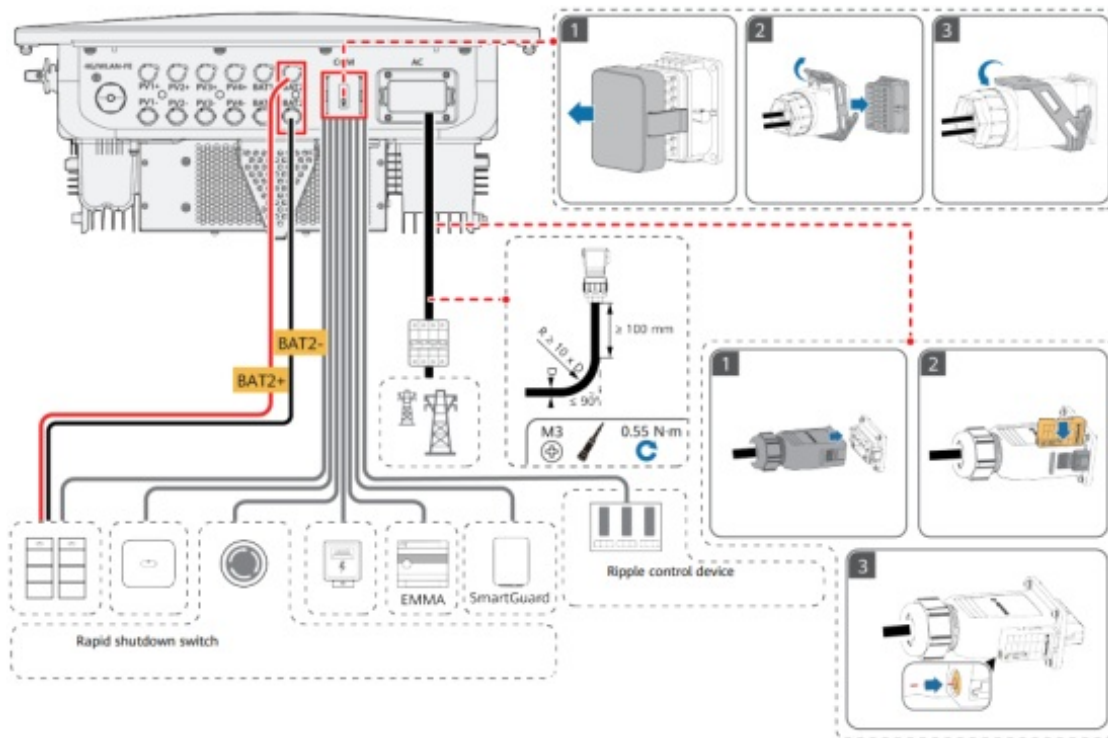
Shield layer grounding



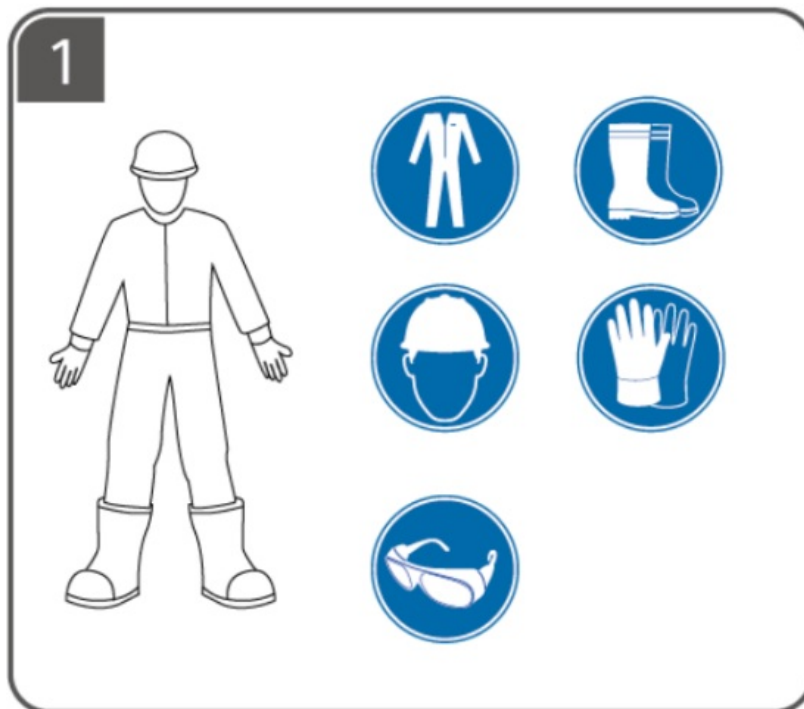
1. COM-1 RS485A1_INV
2. COM-2 RS485B1_INV
3. COM-3 DO_INV
4. COM-4 DO_INV_CGND

Electrical Connections

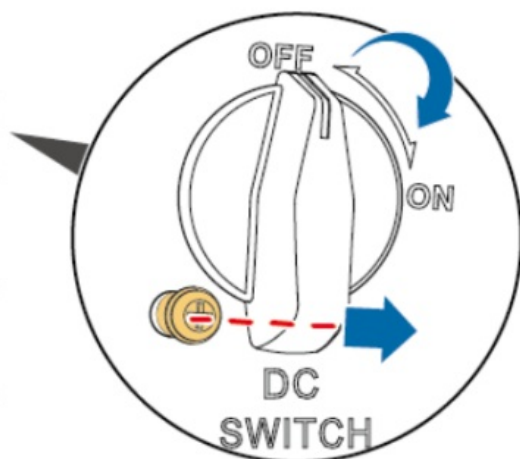




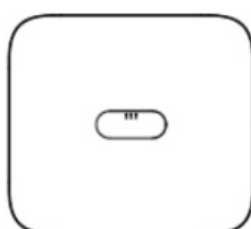
Power-On and Commissioning



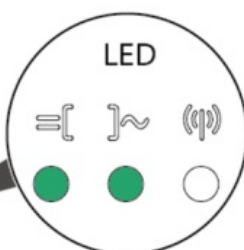
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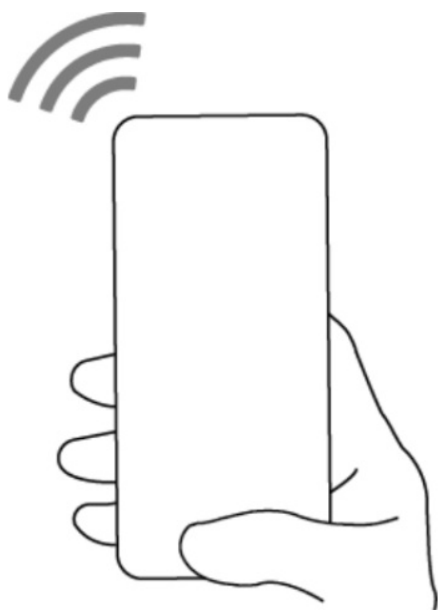


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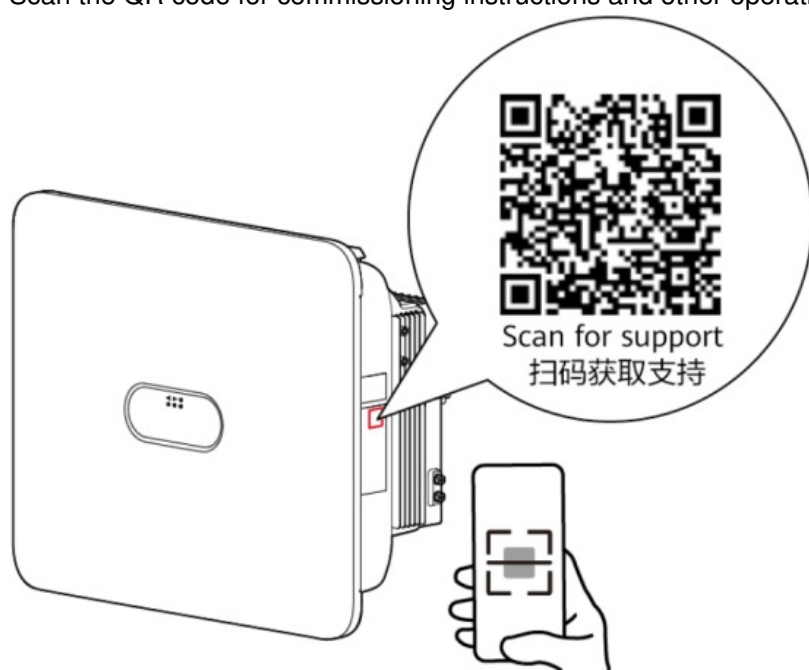
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FusionSolar App


Scan the QR code for commissioning instructions and other operations.



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References

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- [User Manual](#)

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