



# HUAWEI SUN5000 Smart Energy Controller User Guide

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**HUAWEI SUN5000 Smart Energy Controller**



## Product Information

### Specifications

- Rated voltage: 415 V AC
- Rated current: 8K – 25 A, 12K – 32 A

## Product Usage Instructions

### Installation Requirements

Optimizers must be configured for all PV modules connected to the SUN5000 inverter before starting the inverter.

### Preparing Cables

#### PE Cable

Apply paint or other protection measures to the PE Cable.

#### DC Cables

Use the positive and negative metal terminals and DC connectors delivered with the inverter.

#### AC Cable

Use a three-phase AC circuit breaker with the following specifications:

- Rated voltage: 415 V AC
- 8K Inverter: 25 A, 12K Inverter: 32 A

#### Signal Cables

Connect the inverter, power meter, and other devices as per the manual instructions.

### Electrical Connections

Properly connect battery cables, smart dongle, ripple control device, SmartGuard rapid shutdown switch, signal cables, DC input power cables, shield layer grounding, and AC output power cable.

### Power-On and Commissioning:

Ensure all cables are connected correctly and follow the commissioning process as outlined in the manual.

## FAQ

- **Q: What should I do if the inverter cannot be started?**

A: Ensure that optimizers are configured for all PV modules connected to the SUN5000 inverter before attempting to start it.

- **Q: What protection measures should be taken for the PE Cable?**

A: Apply paint or other protective measures to the PE Cable to ensure safety and longevity.

## SUN5000

8K/12K-MAP0

Quick Guide

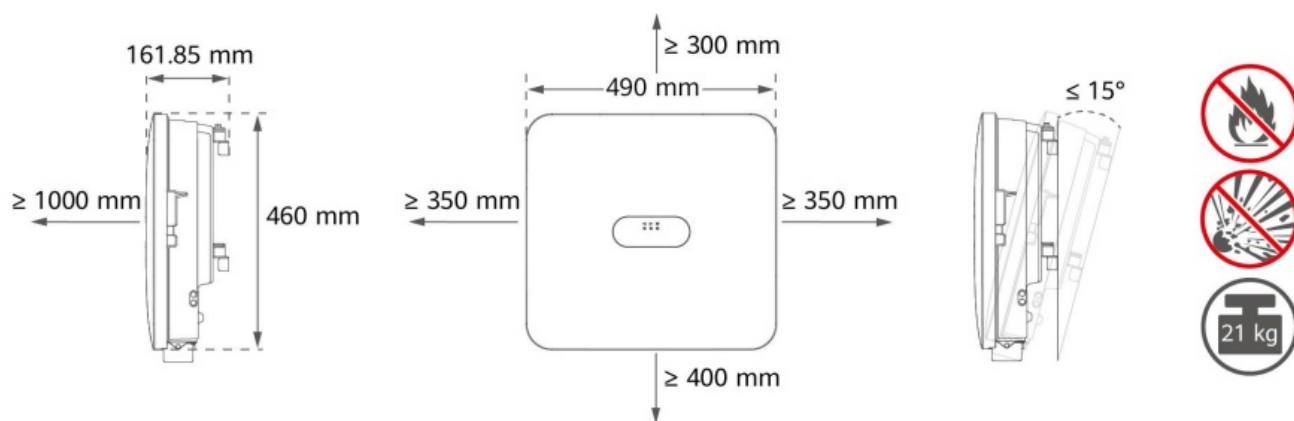
## Scan for Support



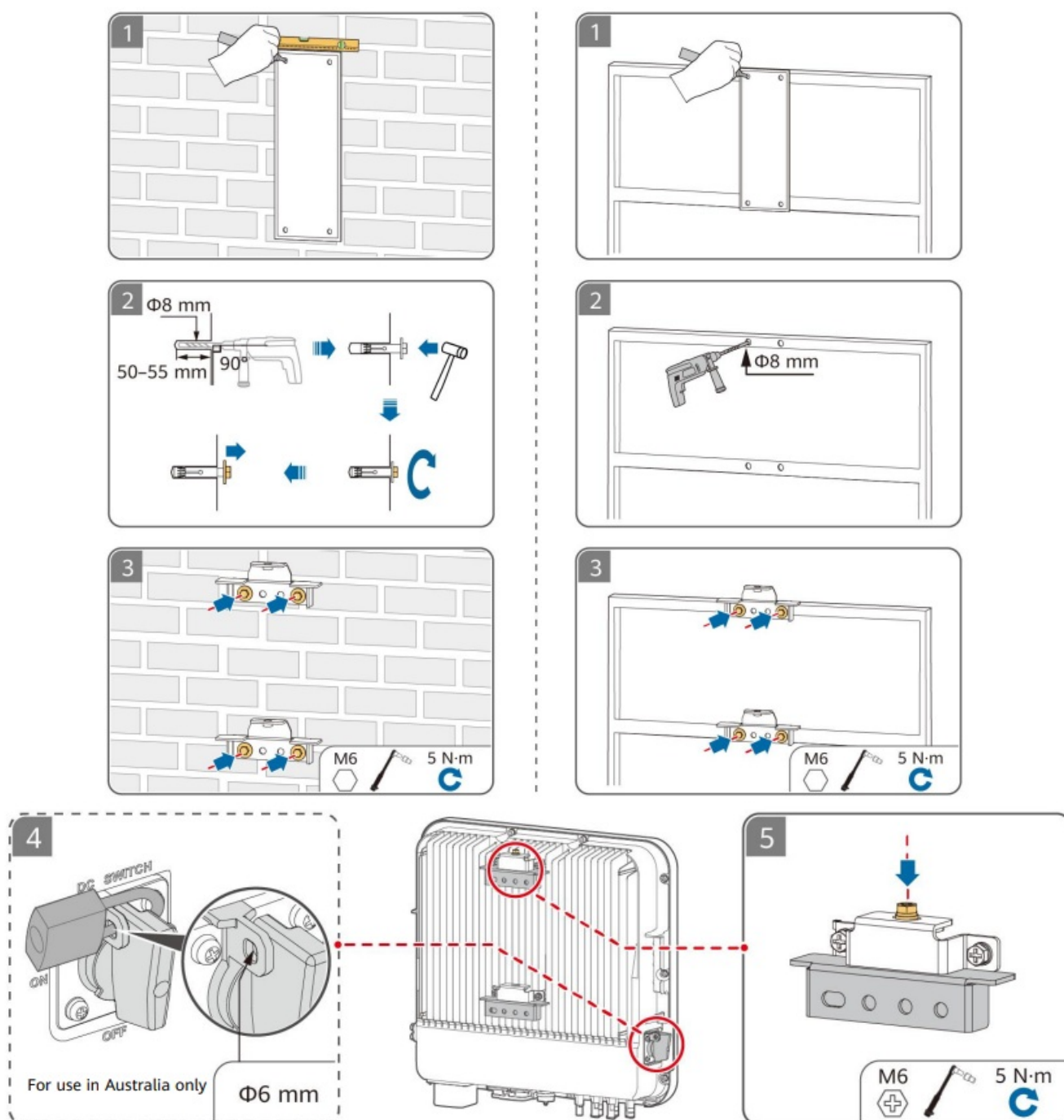
Optimizers must be configured for all PV modules connected to the SUN5000 inverter. Otherwise, the inverter cannot be started.

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 device 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.

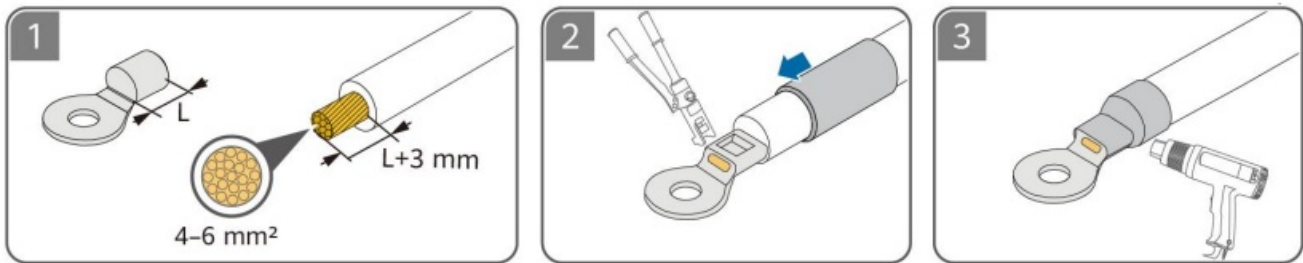
## Installation Requirements



## Installing the Device

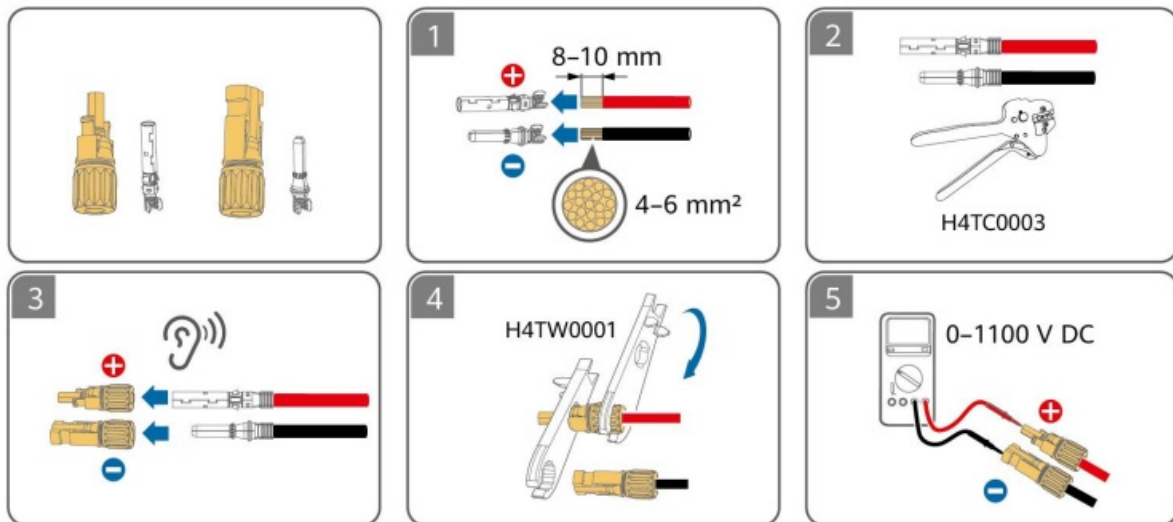


## Preparing a PE Cable



### Preparing DC Cables

Use the positive and negative metal terminals and DC connectors delivered with the inverter.



### Preparing an AC Cable

- Strip the insulation layers of the AC output power cable by the recommended length (17–19 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 2.8–3.2 N·m. Otherwise, the device may fail to run properly or be damaged during operation.
- 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 shall be equipped with an AC output switch. Multiple inverters cannot connect to the same AC 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

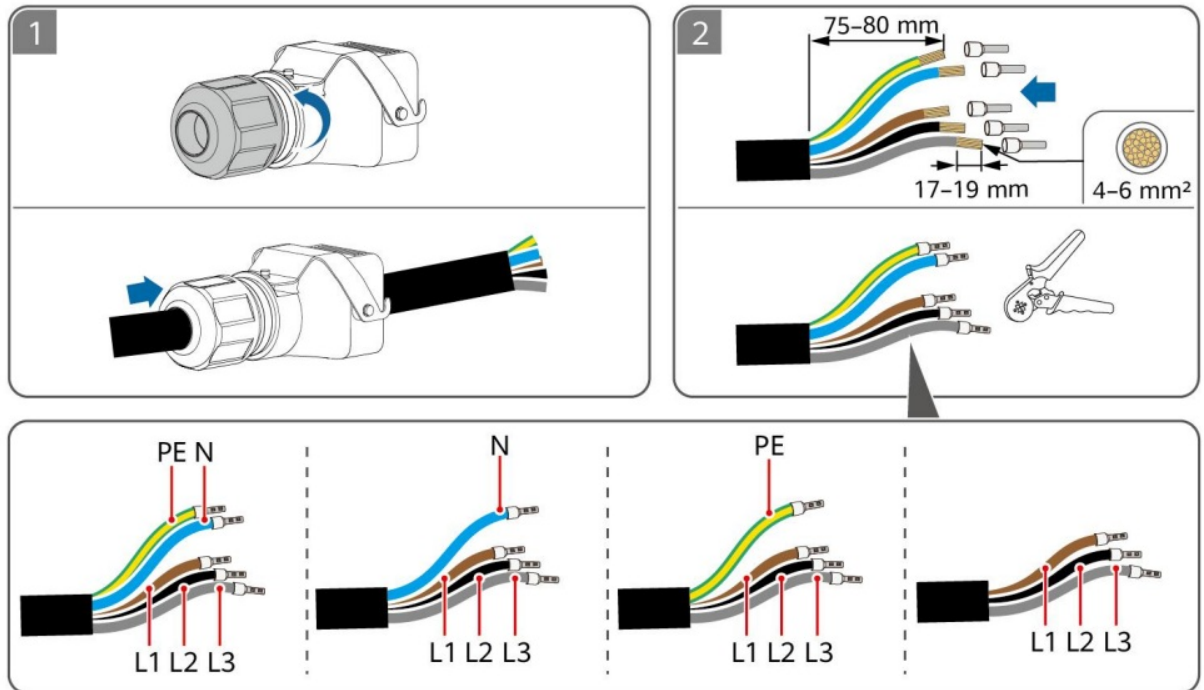
AC switch

### Description

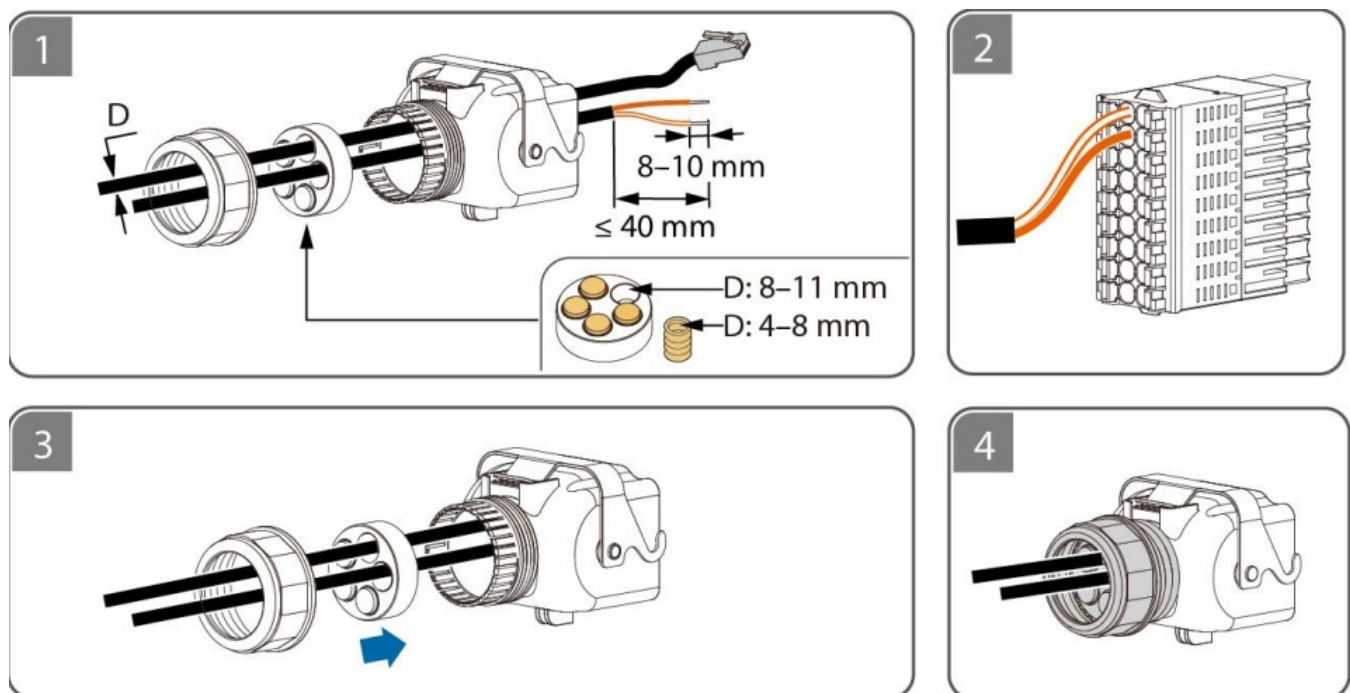
Recommended: three-phase AC circuit breaker

### Specifications

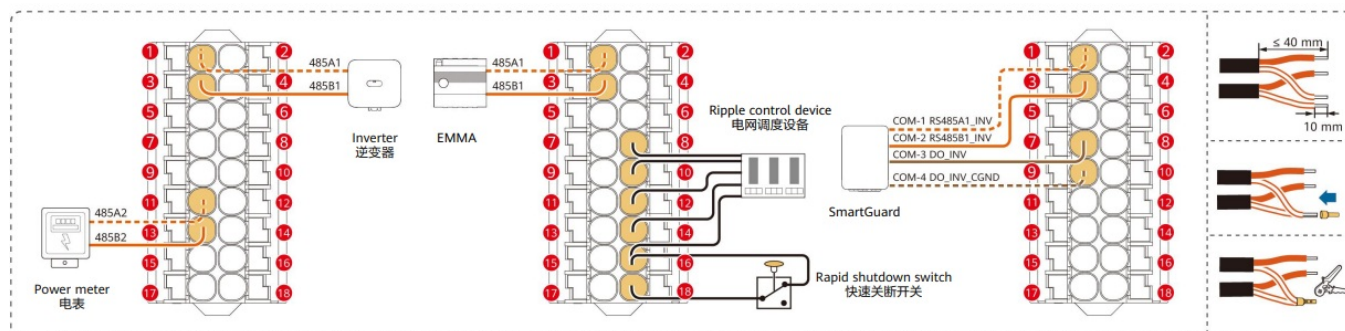
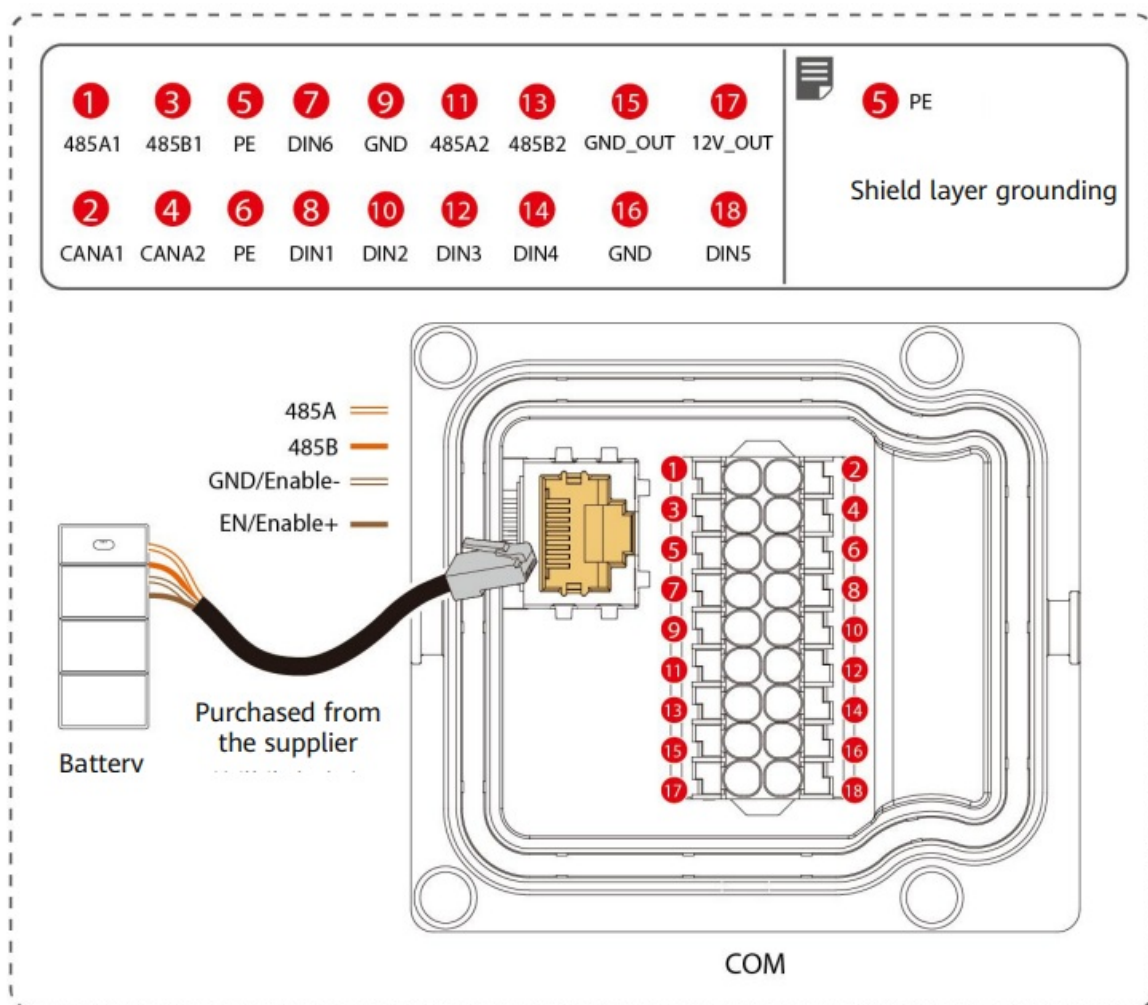
- Rated voltage  $\geq 415$  V AC
- Rated current:
  - 8K: 25 A
  - 12K: 32 A



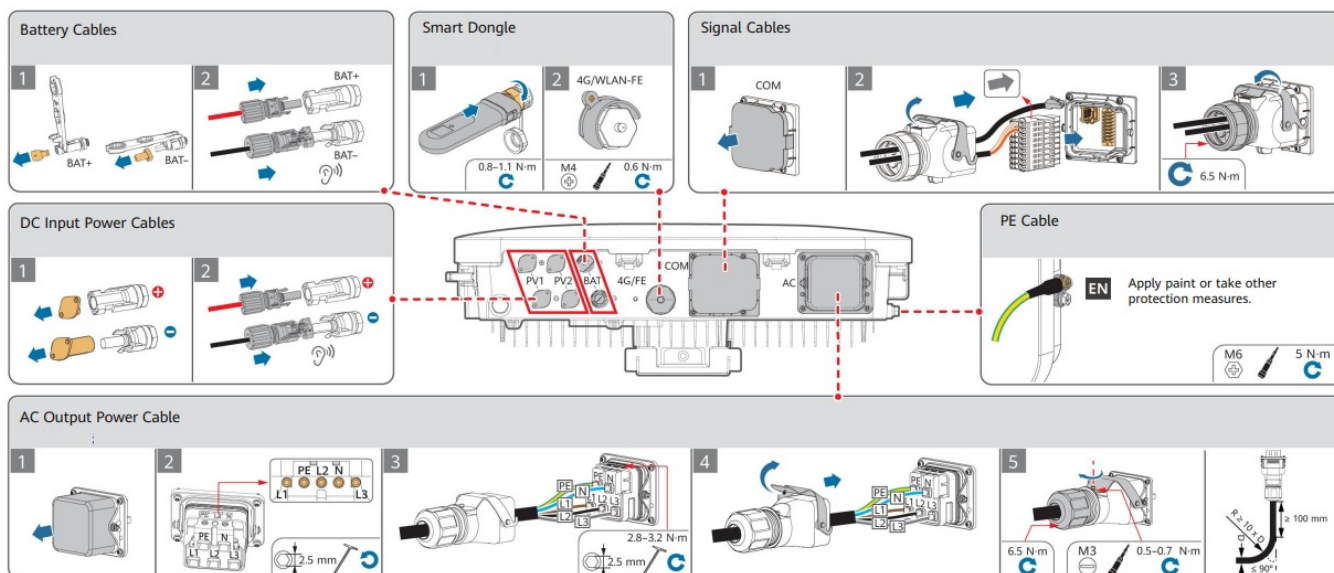
### Preparing Signal Cables



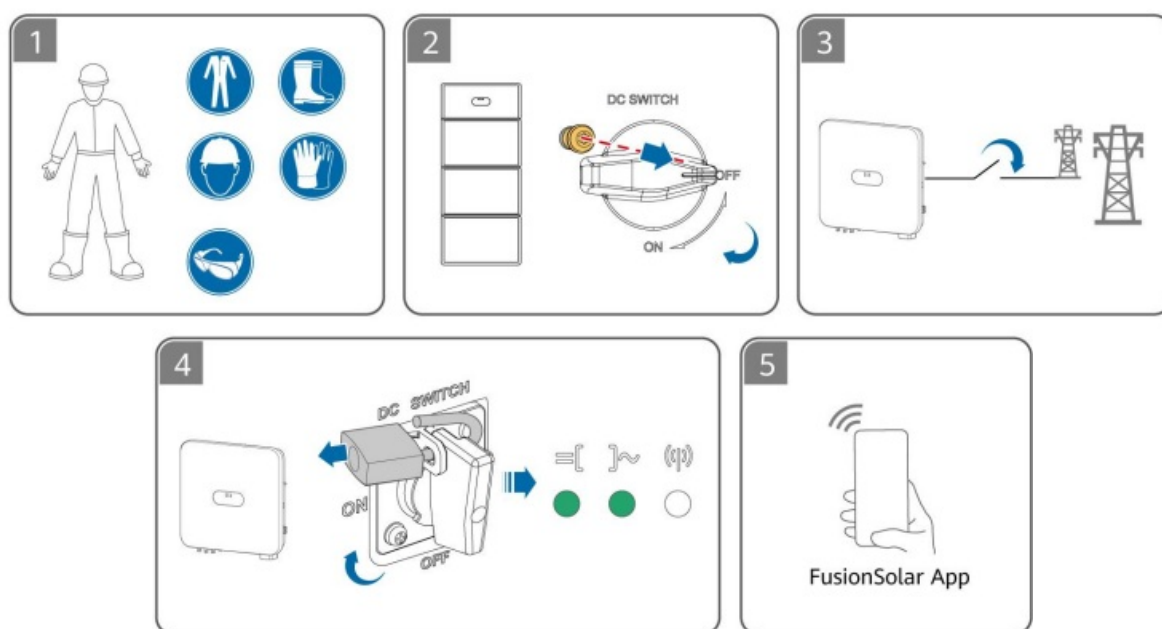




## Electrical Connections



## Power-On and Commissioning



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Scan for Support



## Documents / Resources



[HUAWEI SUN5000 Smart Energy Controller](#) [pdf] User Guide  
8K-MAP0, 12K-MAP0, SUN5000 Smart Energy Controller, SUN5000, Smart Energy Controller, Energy Controller, Controller

## References

-  [Huawei Enterprise | Accelerate Industrial Intelligence](#)
- [User Manual](#)

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