

# Sigen Gateway HomeMax SP Installation Guide

Version: 01  
Release date: 2023-10-27

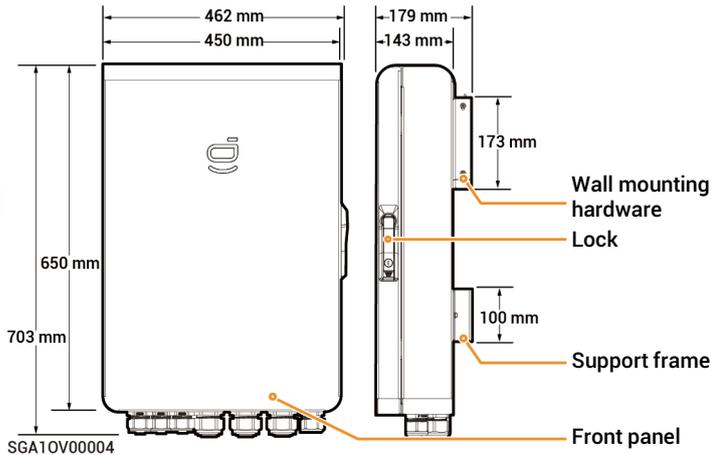


## ⚠ Caution

- Trained or experienced electrical personnel are required to operate the equipment.
- Operators should be familiar with national/regional laws, regulations and standards, the structure and working principle of relevant systems.
- Please read carefully the operating requirements and precautions in this document and Important Notice before operating. Failure to do so may result in damage to the equipment that is not covered by the warranty.

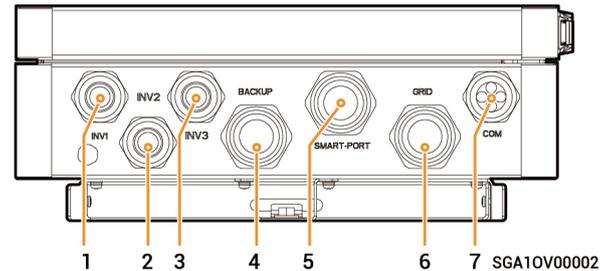
## 1 Product Description

### 1.1 Appearance and Dimensions



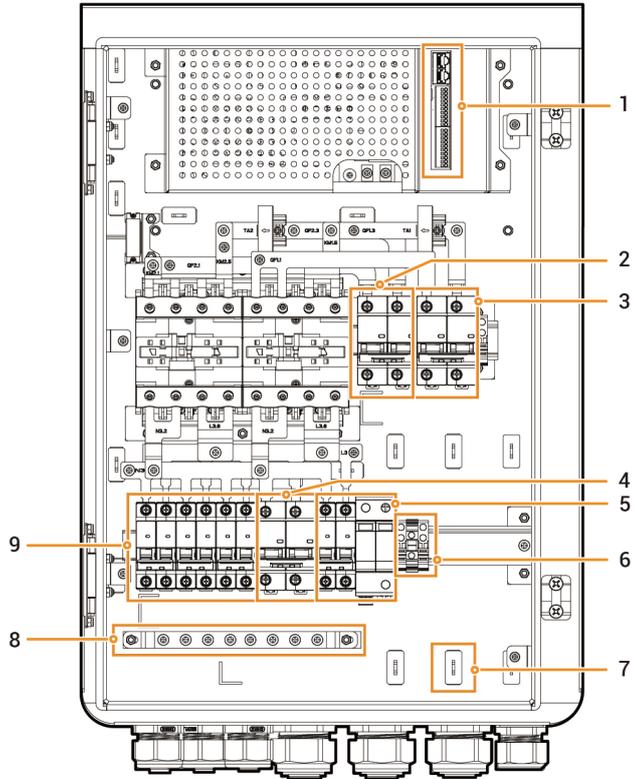
### 1.2 Port Description

#### Bottom view



| S/N | Name   | Marking    |
|-----|--|------------|
| 1   | Wire-in port of inverter 1                           | INV1       |
| 2   | Wire-in port of inverter 2                           | INV2       |
| 3   | Wire-in port of inverter 3                           | INV3       |
| 4   | Wire-in port of distribution panel                   | BACKUP     |
| 5   | Wire-in port for diesel generator/electric equipment | SMART-PORT |
| 6   | Wire-in port of power grid                           | GRID       |
| 7   | Wire-in port of communication                        | COM        |

## Interior view



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| S/N | Name   |
|-----|--|
| 1   | RJ45, RS485, DI, and DO interfaces                               |
| 2   | Miniature circuit breaker (Diesel generator/Electric equipment ) |
| 3   | Miniature circuit breaker (Power grid)                           |
| 4   | Miniature circuit breaker (Distribution panel)                   |
| 5   | Miniature circuit breaker + Surge protection device              |
| 6   | GND  |
| 7   | Cable clamp  |
| 8   | Ground copper bar  |
| 9   | Miniature circuit breaker (Inverters 1, 2 and 3)                 |

## 2 Pre-installation Check

- According to the packing list, check whether the components are complete and in good appearance. If any abnormality occurs, contact your sales agent in time.
- Check personal protective equipment and installation tools to ensure that they are complete; If not, please make them up.
- Check the customer-provided cable to ensure that the quantity and specifications are correct; if not, prepare again.

### Protective equipment



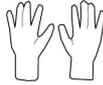
Safety hat



Safety glasses



Dust mask



Protective gloves



Insulating gloves



Insulating shoes

### Installation tool



Power drill



Vacuum cleaner



Wire cutter



Crimp tool



Crimping pliers



Wire stripper



Scissors



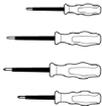
Cable tie



Heat shrinkable sleeve



Heat gun



Insulation screwdriver set



Insulation sleeve set



Torque socket wrench



Marker



Level



Tape measure

## Installer-provided cable

| S/N | Cable name                    |  | Recommended specifications   |
|-----|-------------------------------|--|--|
| 1   | Functional ground cable       |  | Outdoor single-conductor copper cable<br>Cross-sectional area of core conductor: 6–10 mm <sup>2</sup> ; Outer diameter: 5–8 mm   |
| 2   | AC cable                      | Connected to inverter  | Outdoor three-core copper cable (L, N, PE)<br>Cross-sectional area of core conductor: 4–6 mm <sup>2</sup> ; Outer diameter: 13–21 mm   |
| 3   |                               | Connected to distribution panel                              | Outdoor three-core copper cable (L, N, PE)<br>Cross-sectional area of core conductor: 35–50 mm <sup>2</sup> ; Outer diameter: 28–32 mm   |
| 4   |                               | Connected to power grid                                      |  |
| 5   |                               | Connected to electric equipment /diesel generator (optional) | Outdoor three-core copper cable (L, N, PE)<br>Cross-sectional area of core conductor: 16–35 mm <sup>2</sup> ; Outer diameter: 26–32 mm   |
| 6   | RS485 signal cable (Optional) |  | Outdoor shielded twisted pair<br>Cross-sectional area of core conductor: 0.5–0.75 mm <sup>2</sup> (multi-core flexible conductor, Tubular terminal needed); 0.5–1 mm <sup>2</sup> (single-strand hard conductor, no tubular terminal needed)<br>Outer diameter: 4.5–6.5 mm |
| 7   | RJ45 network cable            |  | Outdoor eight-conductor shielded twin-twisted pair cable<br>Cross-sectional area of core conductor: 0.13–0.2 mm <sup>2</sup> ; Outer diameter: 4–7.5 mm  |
| 8   | DI/DO signal cable (Optional) |  | Outdoor two-conductor shielded cable<br>Cross-sectional area of core conductor: 0.2–1.5 mm <sup>2</sup> ; Outer diameter: 2–4 mm   |

## 3 Equipment Installation

### Installation environment

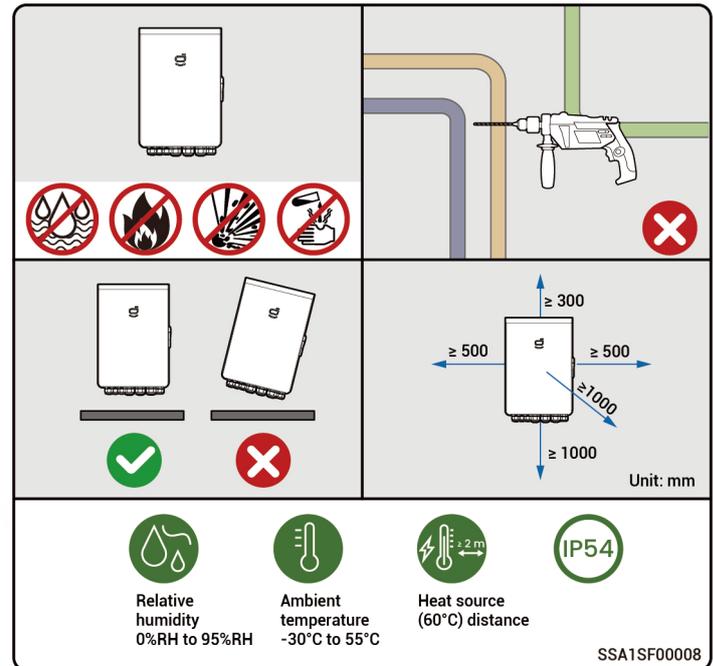
- Do not install the equipment in smoky, flammable, explosive, or corrosive environments.
- Do not install the equipment outdoors in areas prone to salt damage area, which are located less than 500 meters from the coastline or affected by sea wind.
- Do not install the equipment in environments exposed to direct sunlight, rain, standing water, snow accumulation, sand, and dust. It is recommended to install in a sheltered location. If the area is susceptible to natural disasters such as floods, landslides, earthquakes, or typhoons, take preventive measures during equipment installation.
- Do not install the equipment in an environment with strong electromagnetic interference.
- Ensure that the temperature and humidity of the installation environment comply with the equipment's requirements.

### Installation position

- Do not tilt or overturn the equipment to ensure that it is installed horizontally.
- Do not install the equipment in a place easily touched by children.
- Do not install the equipment in places with fire or damp (including but not limited to kitchen, tea room, toilet, shower room, laundry room, etc.).
- Please keep away from the daily work and living places (including but not limited to living room, bedroom, studio, lounge, study, etc.).
- Do not install the equipment in areas with difficult access (including but not limited to attic, basement, etc.).
- Do not install the equipment in mobile scenarios such as RVS, cruise ships, and trains.
- You are advised to install the equipment in a position that is easy to operate, maintain, and view indicator status.
- When installing the equipment in the garage, do not install the equipment in the position where the vehicle passes through to avoid collision.

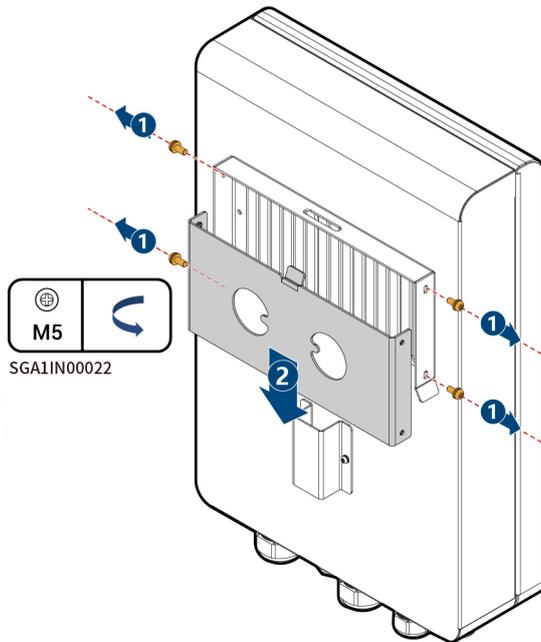
### Mounting surface

- Do not install the equipment on a flammable carrier.
- The installation carrier must meet load-bearing requirements. Solid brick-concrete structure, concrete walls, and ground are recommended.
- The surface of the installation carrier must be smooth and the installation area must meet the installation space requirements.
- No water or electricity is routed inside the carrier to prevent drilling hazards during equipment installation.

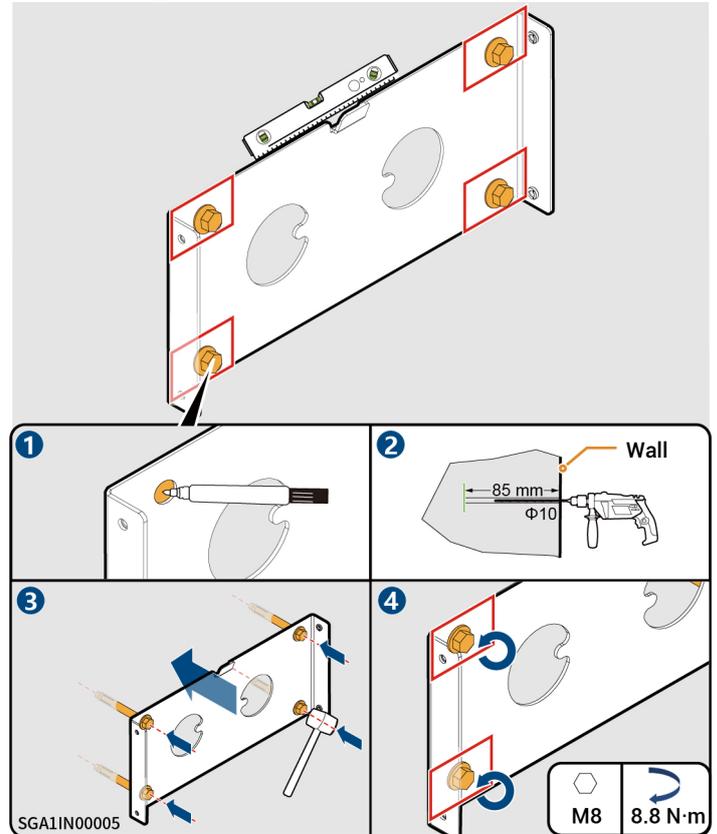


## 4 Gateway Installation

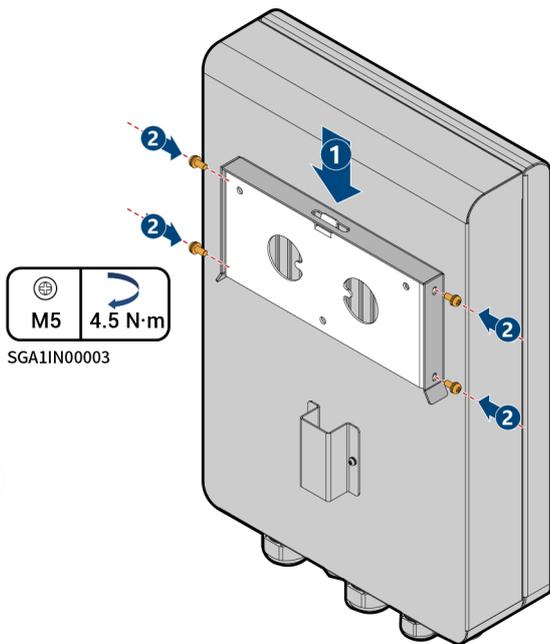
1



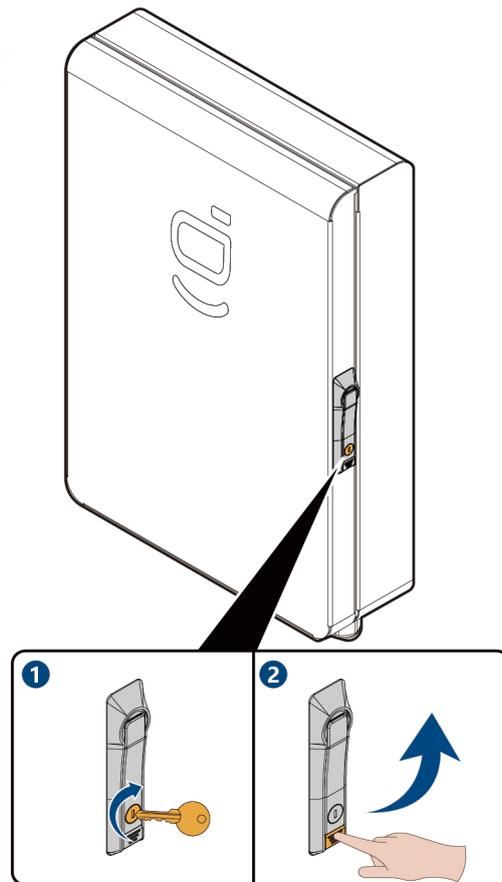
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3



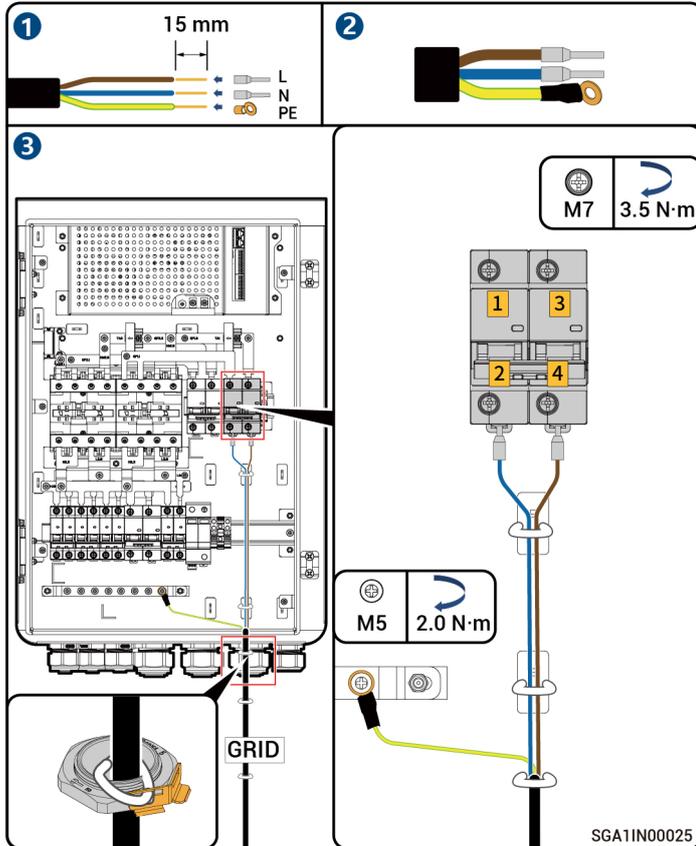
4



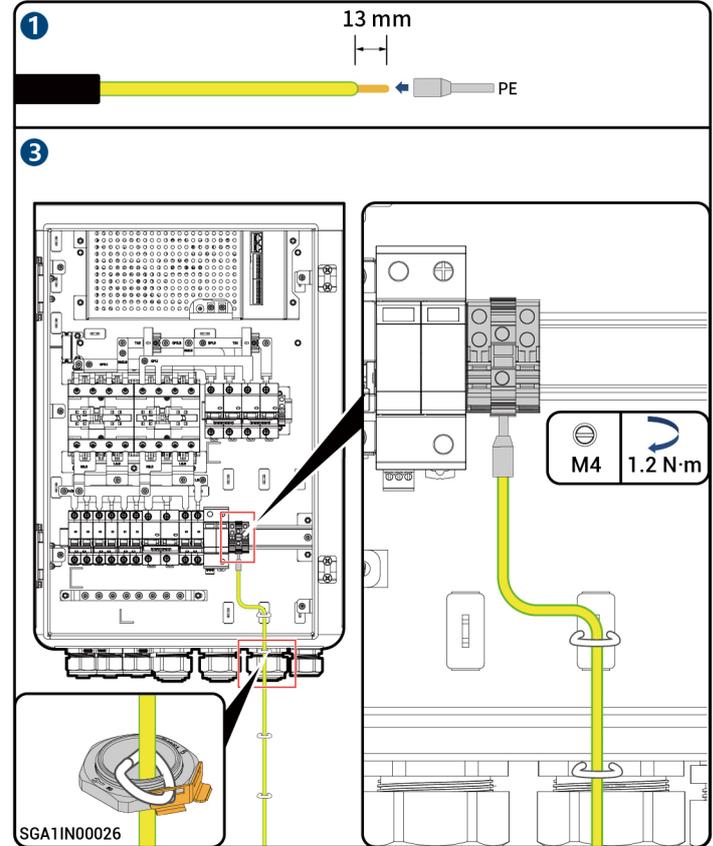
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## 5 Cable Connection

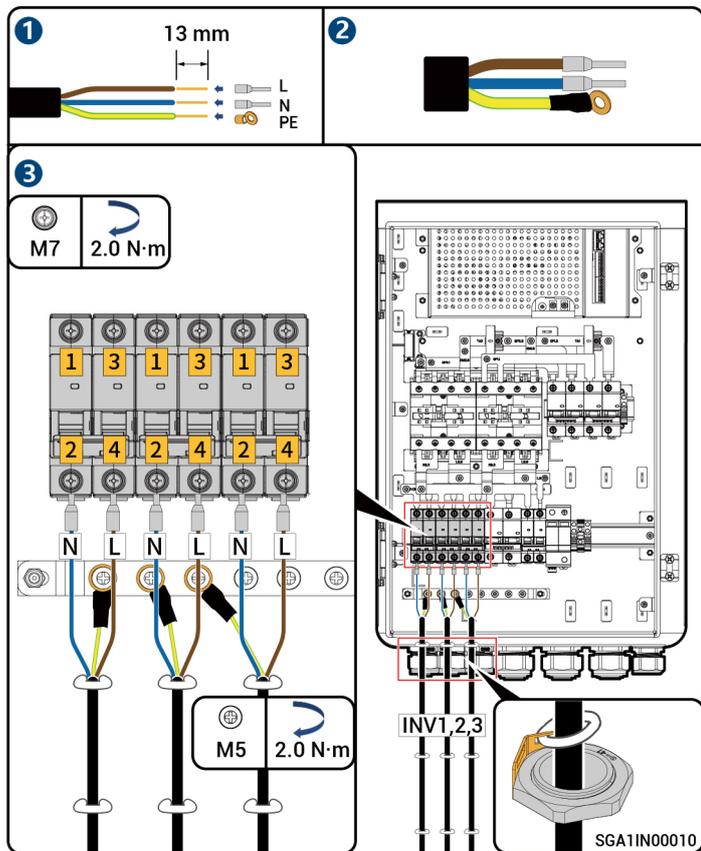
### 5.1 Connected to power grid



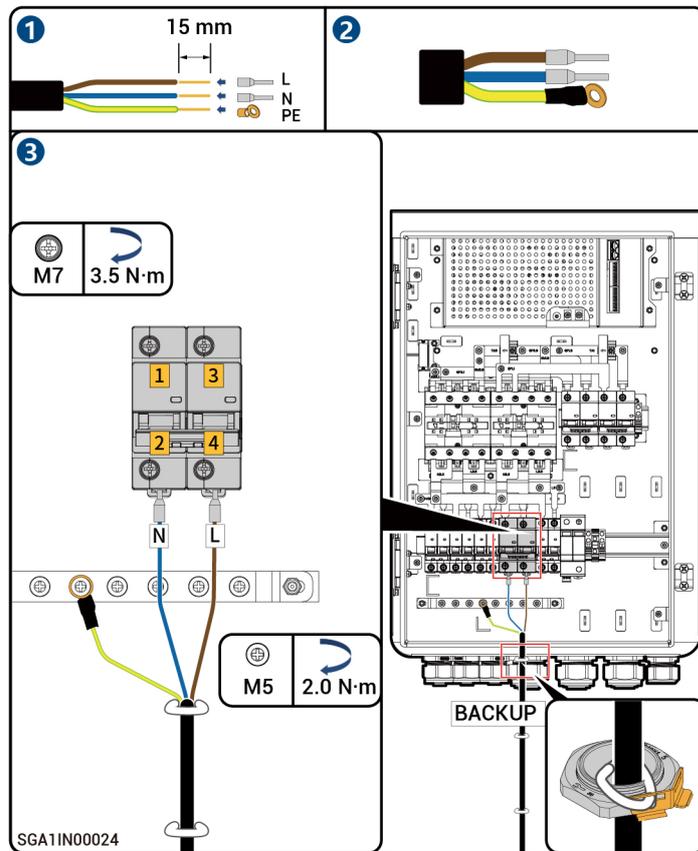
### 5.2 Functional ground cable



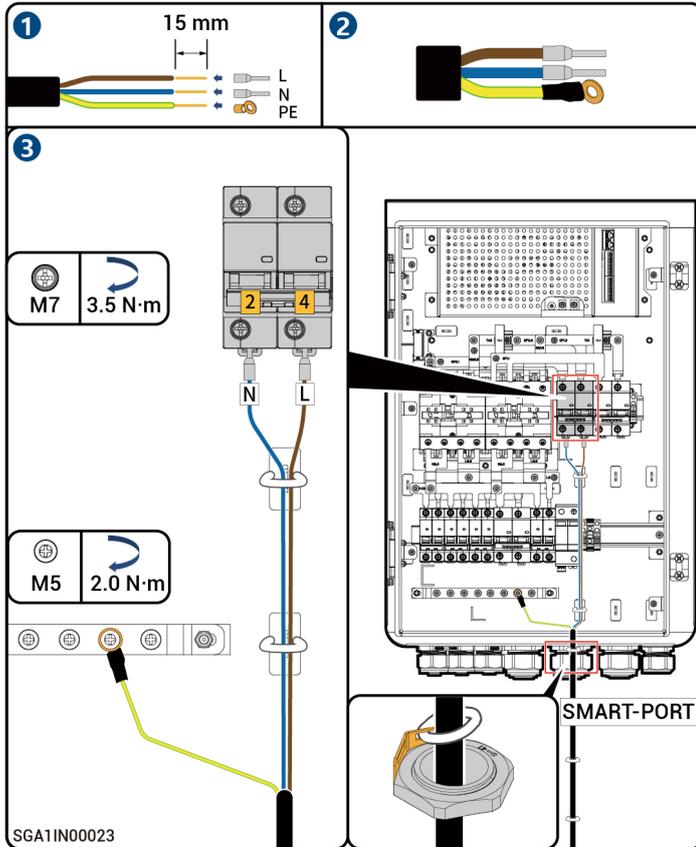
### 5.3 Connected to inverter



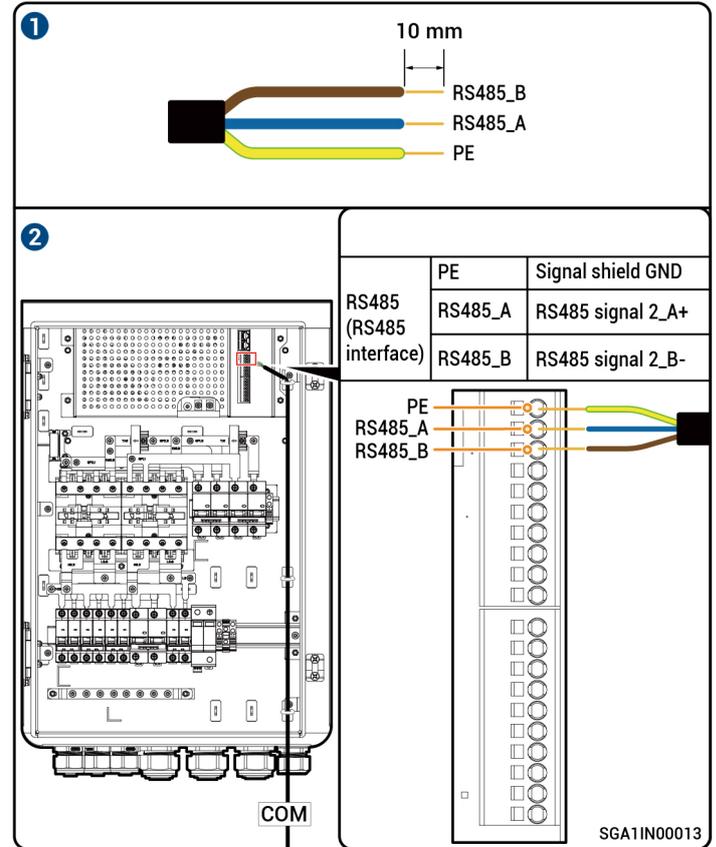
### 5.4 Connected to distribution panel



## 5.5 Connected to electric equipment /diesel generator (Optional)



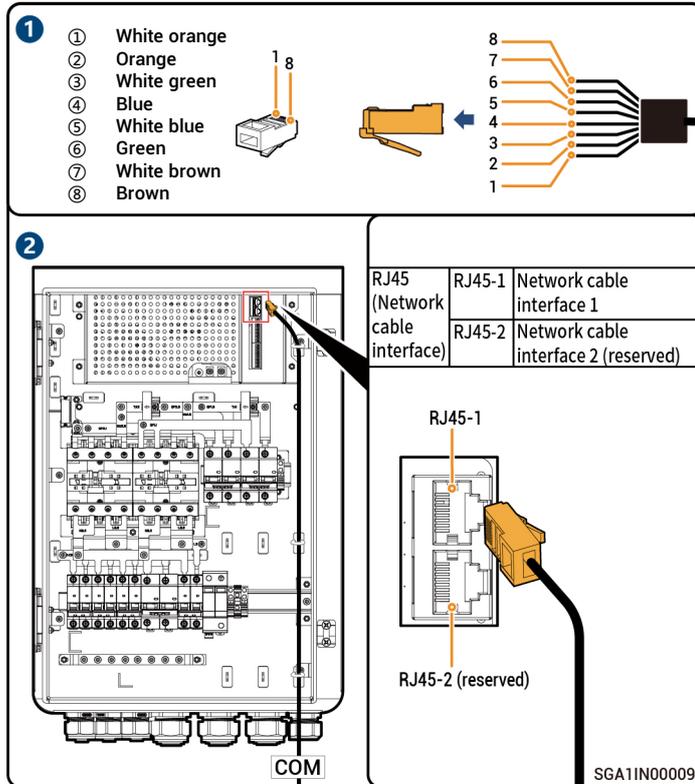
## 5.6 RS485 Cable



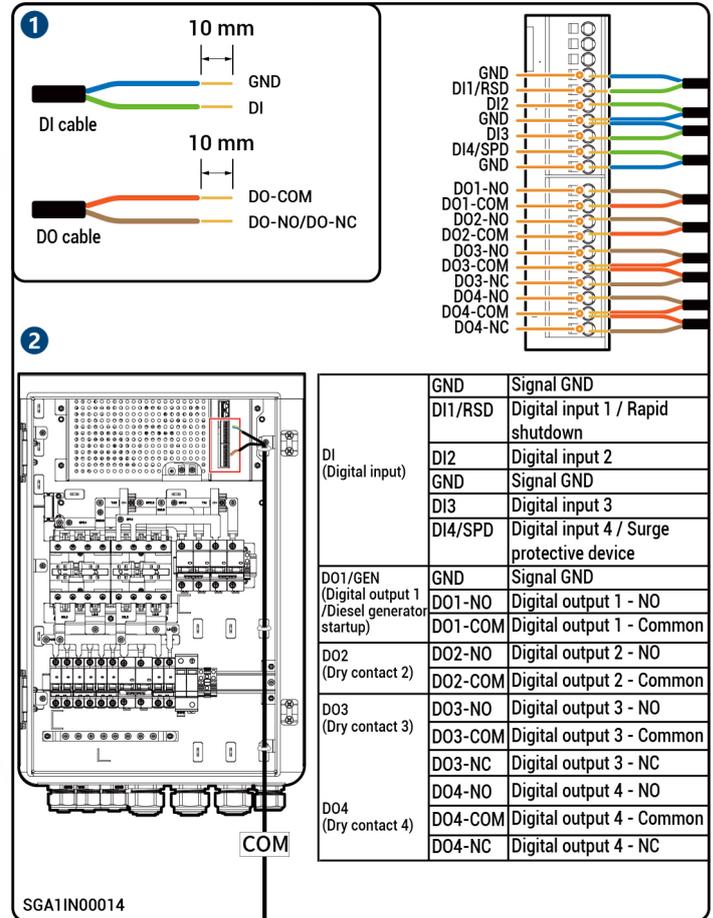
## 5.7 RJ45 Cable

### Tips

- Two RJ45 network ports: One for the inverter and the other for reservation.
- RJ45 cables are EIA/TIA 568B standard cable.



## 5.8 DI, DO Cable

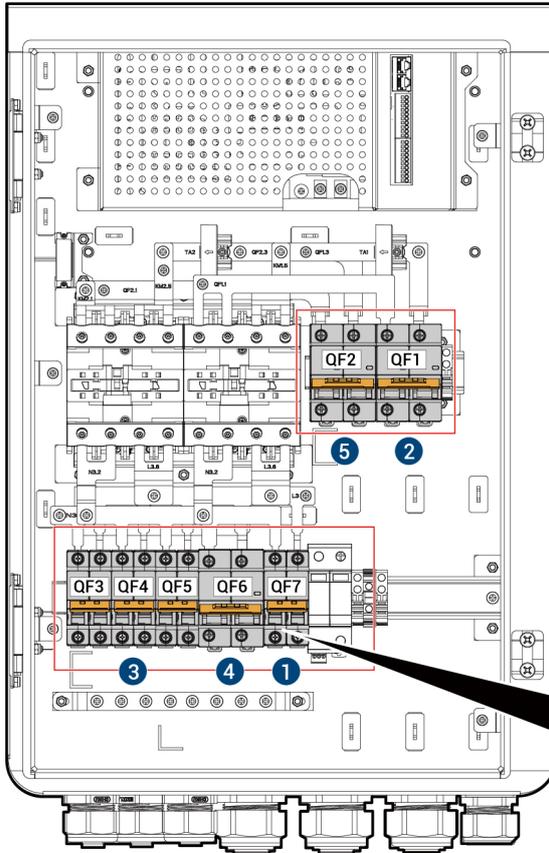


## 6 Post-installation Check

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| S/N | Check Item  |
|-----|---|
| 1   | The equipment has been securely installed.  |
| 2   | Ground cables, DC cables, signal cables, etc. are installed accurately without leftovers. |
| 3   | The cable fastening screws or terminals are properly installed.                           |
| 4   | There are no sharp spikes or acute angles at the cut point of the cable tie.              |
| 5   | The Gateway protective cover is locked.   |
| 6   | There is no construction left inside or outside the equipment.                            |

## 7 Equipment Power-On



### Tips

- Turn on the front switch of the equipment.
- There is a risk of electric shock if the Gateway is left ungrounded.

1

1 Switch on the miniature circuit breaker (Surge Protection Device) QF7 and the Surge Protection Device will be enabled.

2 Switch on the miniature circuit breaker (Power grid) QF1 and connect the equipment to the power grid.

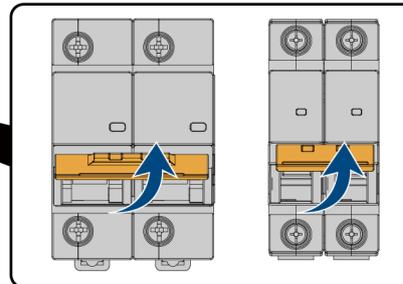
3 Switch on the miniature circuit breaker (Inverter) QF3, QF4, QF5 and check whether the inverter is turned on.

4 Switch on the miniature circuit breaker (Distribution panel) QF6 and connect the equipment to the Distribution panel.

5 (Optional) Switch on the miniature circuit breaker (Diesel generator) QF2 and connect the equipment to the diesel generator.

2

Upon completion of the operation, close the front panel of the Gateway and lock the sides with the key key delivered with the case; the power-on is completed.



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**Sigenergy Technology Co., Ltd.**



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