

Sigen Gateway HomeMax TP Installation Guide



Version: 01
Release date: 2023-12-30

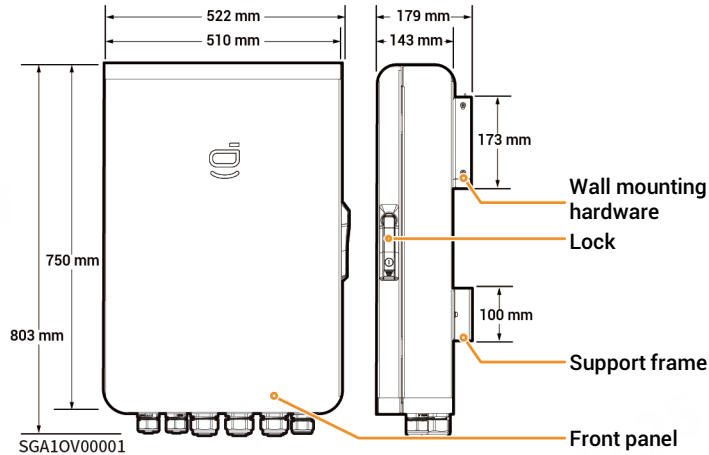


⚠ Caution

- 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.

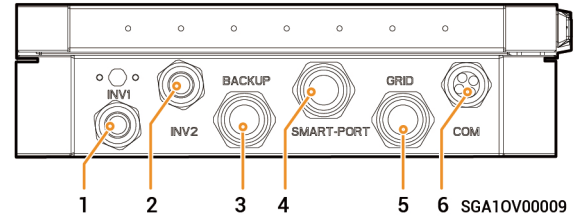
1 Product Description

1.1 Appearance and Dimensions



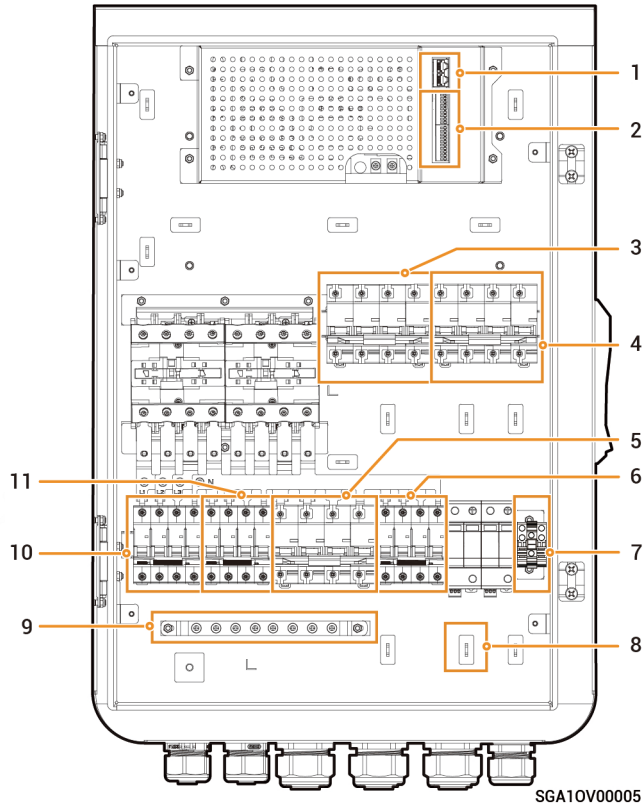
1.2 Port Description

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 distribution panel	BACKUP
4	Wire-in port for diesel generator/Controllable loads	SMART-PORT
5	Wire-in port of power grid	GRID
6	Wire-in port of communication	COM

Interior view



S/N	Name
1	RJ45
2	(Reserved) RS485, DI, and DO interfaces
3	(Reserved) Miniature circuit breaker (Diesel generator/Controllable loads)
4	Miniature circuit breaker (Power grid)
5	Miniature circuit breaker (Electric equipment)
6	Miniature circuit breaker (Distribution panel)
7	GND
8	Cable clamp
9	Grounding bar
10	Miniature circuit breaker (Inverters 1)
11	Miniature circuit breaker (Inverters 2)

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

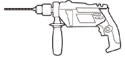


Insulating gloves



Insulating shoes

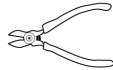
Installation tool



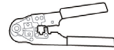
Power drill



Vacuum cleaner



Wire cutter



Crimp tool



Crimping pliers



Wire stripper



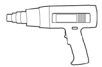
Scissors



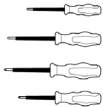
Cable tie



Heat shrinkable sleeve



Heat gun



Insulation screwdriver set



Insulation sleeve set



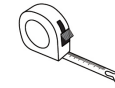
Torque socket wrench



Marker



Level



Tape measure

Installer-provided cable

S/N	Cable name		Recommended specifications
1	Functional ground cable		Outdoor single-conductor copper cable Cross-sectional area of core conductor: 6–10 mm ² ; Outer diameter: 5–8 mm
2	AC cable	Connected to inverter	Outdoor five-conductor copper cable (L1、 L2、 L3、 N、 PE) <ul style="list-style-type: none"> • SigenStor EC/SigenStor AC/Sigen Hybrid (5.0-12.0) TP: Cross-sectional area of core conductor: 4-6 mm²; outer diameter: 13-19 mm • SigenStor EC/SigenStor AC/Sigen Hybrid (15.0-20.0) TP: Cross-sectional area of core conductor: 6-12 mm²; outer diameter: 13-25 mm • SigenStor EC/SigenStor AC/Sigen Hybrid 25.0 TP: Cross-sectional area of core conductor: 12-16 mm²; outer diameter: 13-25 mm
3		Connected to distribution panel	Outdoor five-conductor copper cable (L1、 L2、 L3、 N、 PE) Cross-sectional area of core conductor: 35-50 mm ² ; Outer diameter: 28-32 mm
4		Connected to power grid	
5	RJ45 network cable		Outdoor eight-conductor shielded twin-twisted pair cable Cross-sectional area of core conductor: 0.13–0.2 mm ² ; Outer diameter: 4–7.5 mm Cable length: ≤ 100 m ^[1]

Note [1]: The cable length should be limited for good communication. Too long cable degrades the communication effect. FE communication distance: ≤ 100 m.

3 Equipment Installation

Tips

The warranty applies when the equipment has been installed properly for its intended use and in accordance with the operating instructions.

Installation environment

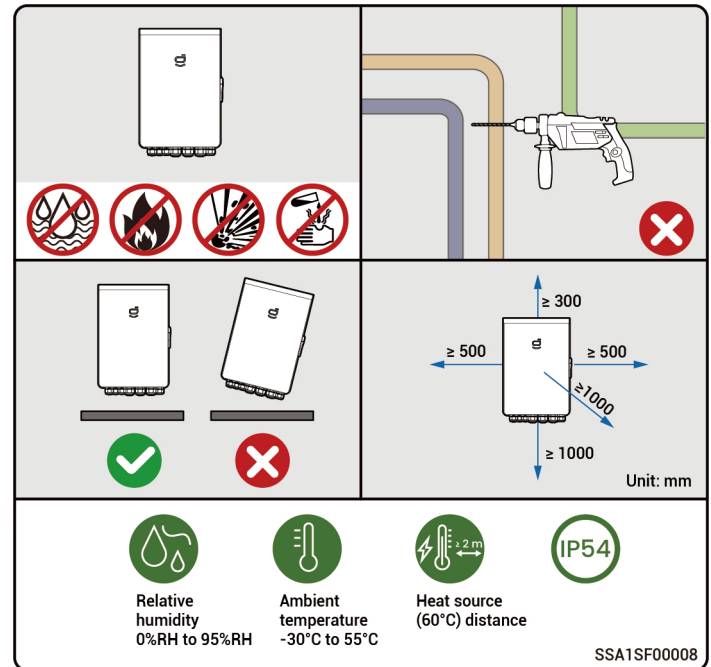
- Do not install the equipment in smoky, flammable, or explosive environments.
- Avoid exposing the equipment to direct sunlight, rain, standing water, snow, or dust. Install the equipment in a sheltered place. Take preventive measures in operating areas prone to natural disasters such as floods, mudslides, earthquakes, and typhoons.
- 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.
- The equipment should be installed in an area that is at least 500 m away from corrosion sources that may result in salt damage or acid damage (corrosion sources include but are not limited to seaside, thermal power plants, chemical plants, smelters, coal plants, rubber plants, and electroplating plants).

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.

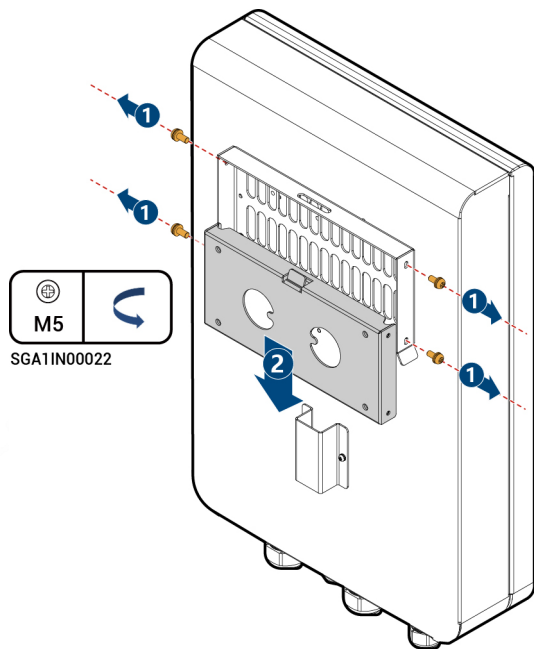
Mounting surface

- Do not install the equipment on a flammable carrier.
- The installation carrier must meet load-bearing requirements. Solid brick-concrete structure, concrete walls is 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.

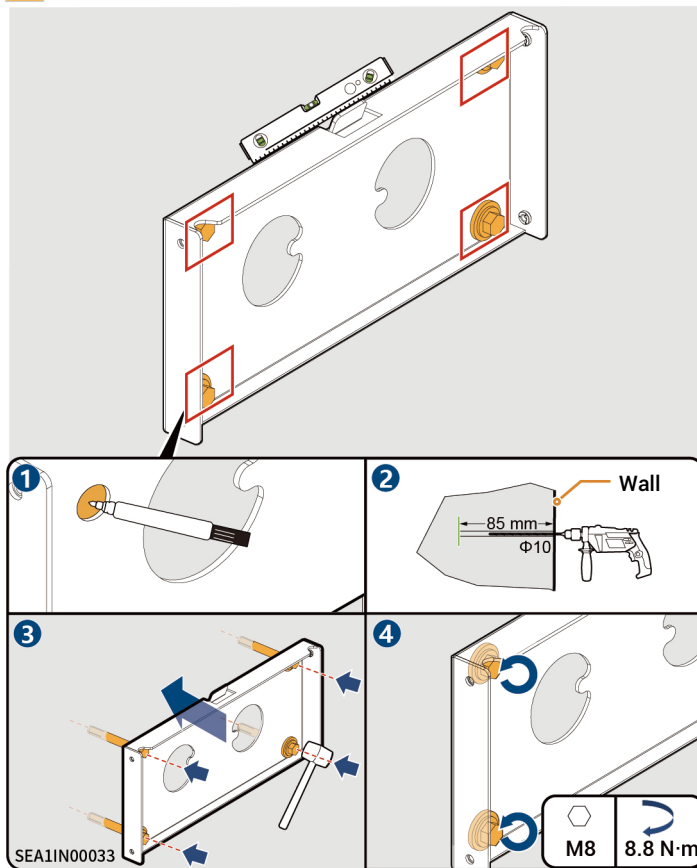


4 Gateway Installation

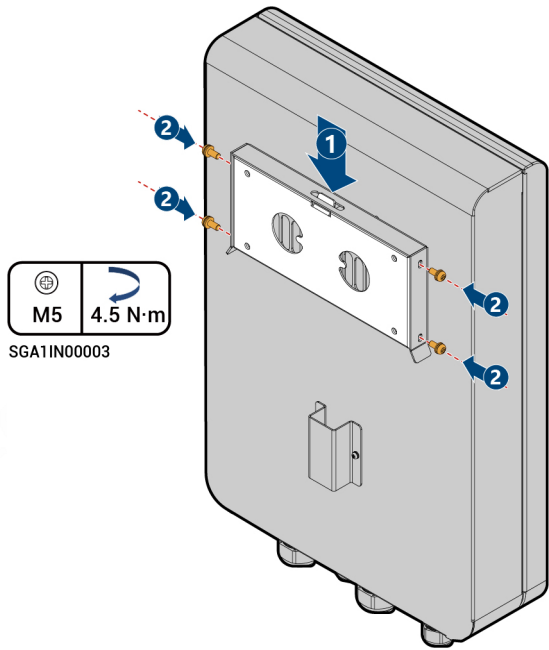
1



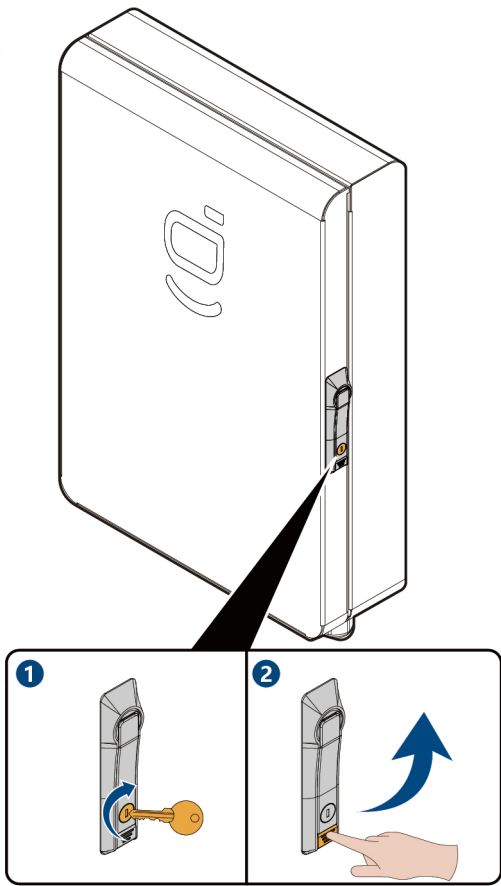
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3



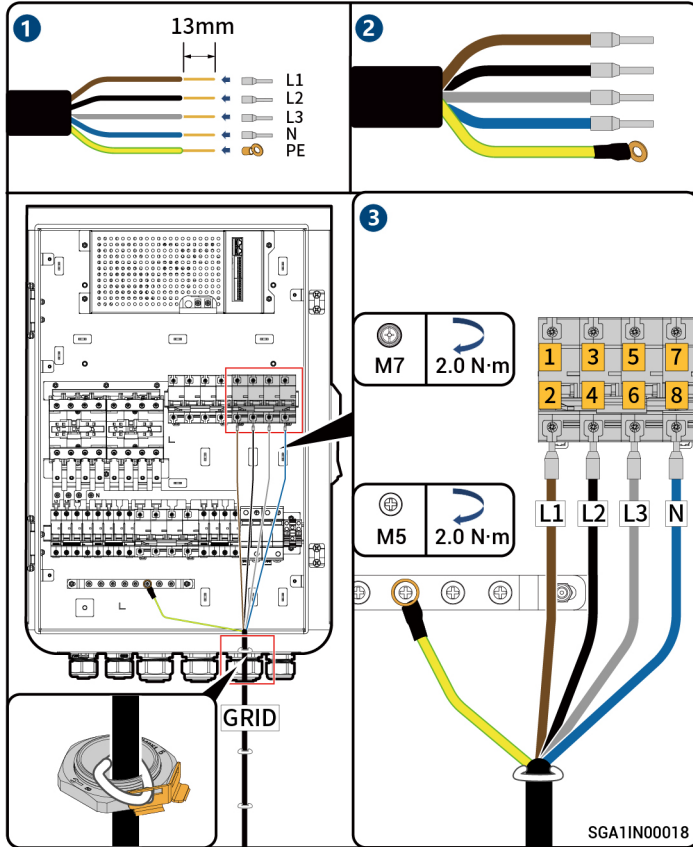
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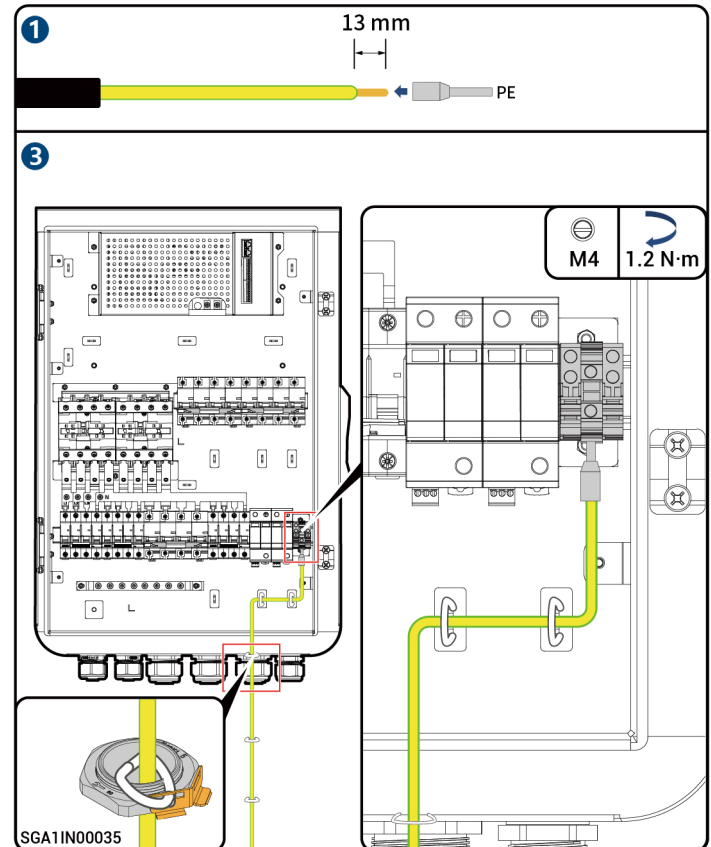
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5 Cable Connection

5.1 Connected to Power grid



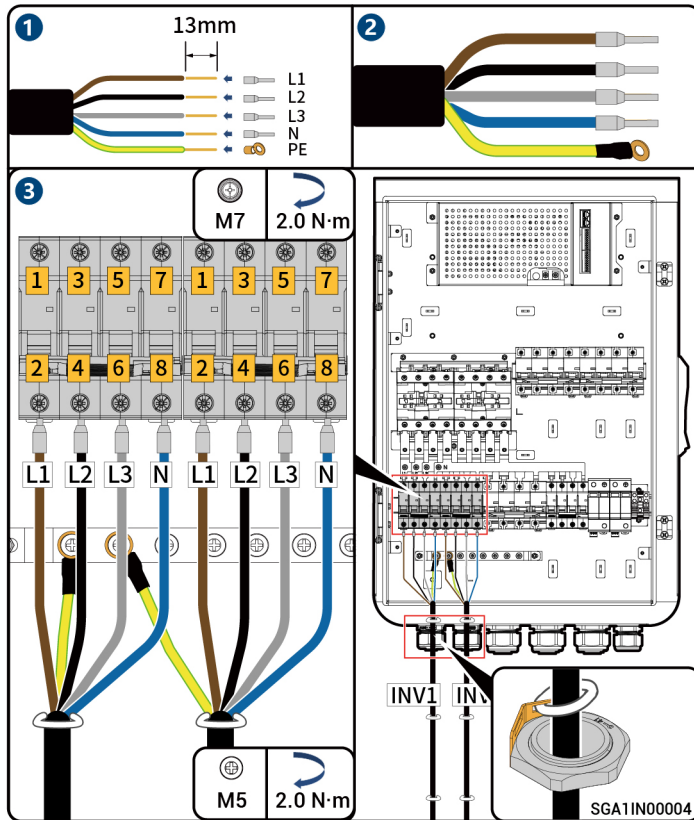
5.2 Functional ground cable



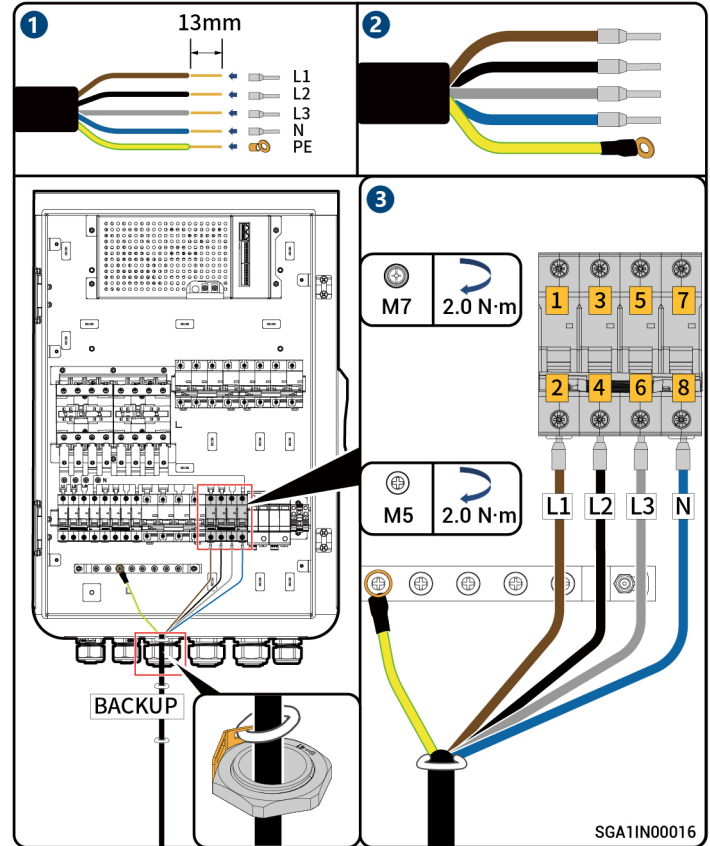
5.3 Connected to inverter

⚠ Caution

When connecting to the inverter, L1, L2, L3, and N must be connected in order and cannot be mixed.



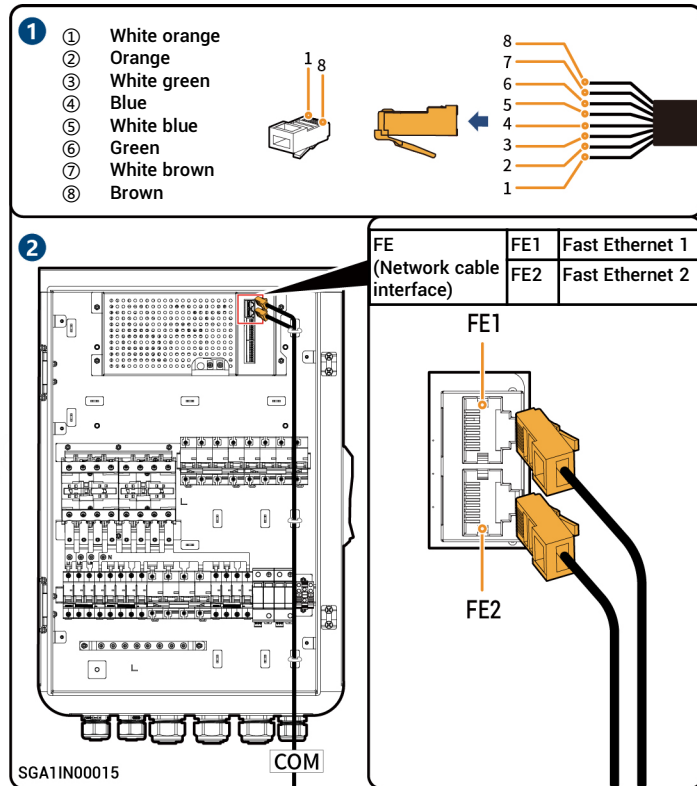
5.4 Connected to Distribution panel



5.5 RJ45 Network Cable

Tips

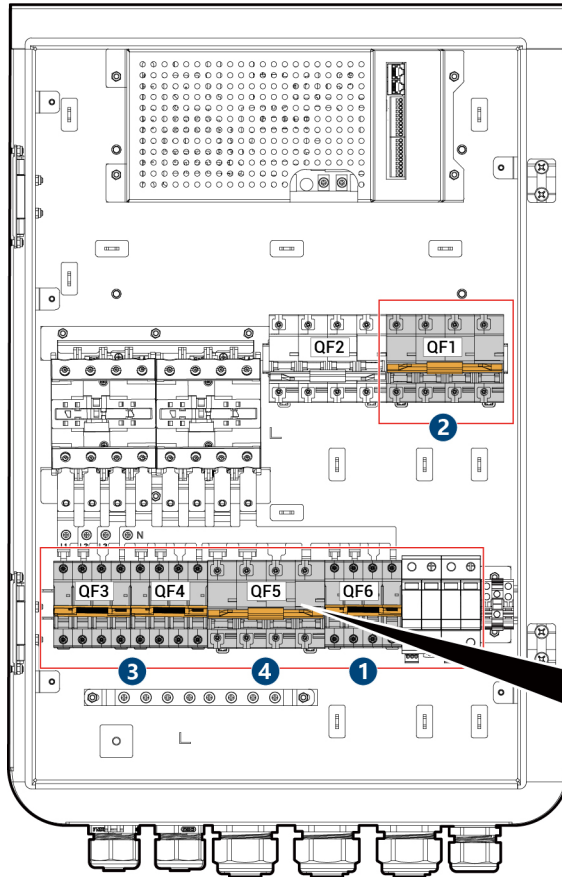
- Two RJ45 network ports: One for the inverter and the other for EV AC Charger.
- RJ45 cables are EIA/TIA 568B standard cable.



6 Post-installation Check

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) QF6 and the Surge Protection Device will be enabled.

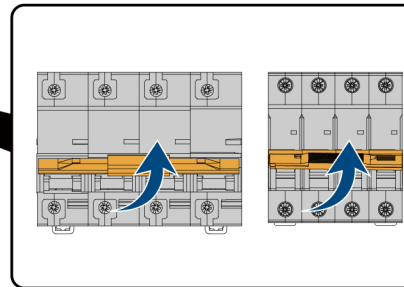
2 Switch on the miniature circuit breaker (Power grid) QF1 and connect the equipment to the power grid.

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

4 Switch on the miniature circuit breaker (Distribution panel) QF5 and connect the equipment to the Distribution panel.

2

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



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