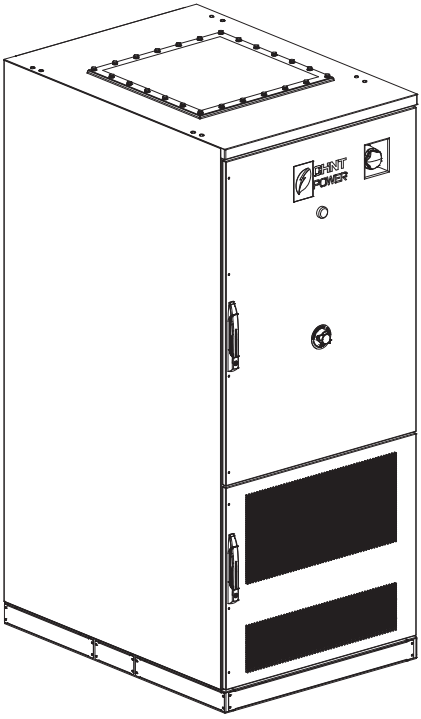


QUICK INSTALLATION GUIDE

Liquid Cooling C&I Integrated Cabinet

CPS ES-125kW/261kWh-EU

Doc. No.: 9.0020.1183C0

V3.0 ·2026.09

1. Important Safety Instructions

DANGER

According to the local laws and regulations, operators must wear PPE, e.g., a helmet, safety shoes, safety goggles or insulating glove, etc. or safety belt if any high-altitude work, to prevent accidental injuries or fall incidents.
Please make sure that the device is free from any damage before installation and electrical connection.
Do not power on the device during installation and cable connection. Otherwise, it may cause a fire, personal injury, or device damage.

WARNING

All the installation and wiring connections should be performed only by qualified and authorized technical personnel.
All the cables must be connected in accordance with the National Electric Code and any local codes or jurisdictions.

Failure to follow instructions and relevant safety precautions in this quick guide and user manual may result in voiding of the warranty and/or the product damages and/or property loss!

CAUTION

The estimated total weight of the cabinet is approx.2535 kg.
Ensure the foundation and crane/liftfork can bear its weight before installing or lifting/placing the product on the foundation.

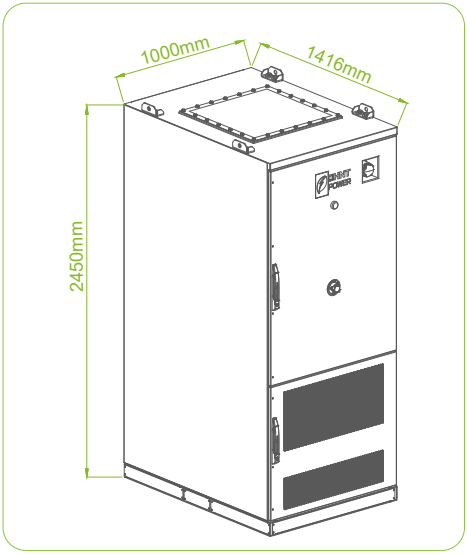
NOTICE

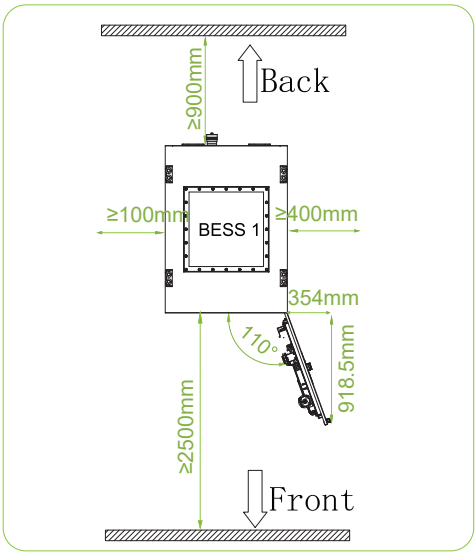
Before installing the device, read this quick guide and its user manual carefully and make sure that you have understood all product information and safety precautions and warning label on the cabinet.
Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.
This manual is subject to change or modification without prior notice, the latest version of this manual can be aquired via our website: https://en.chintpower.com/.

2. Installation Scenario and Space

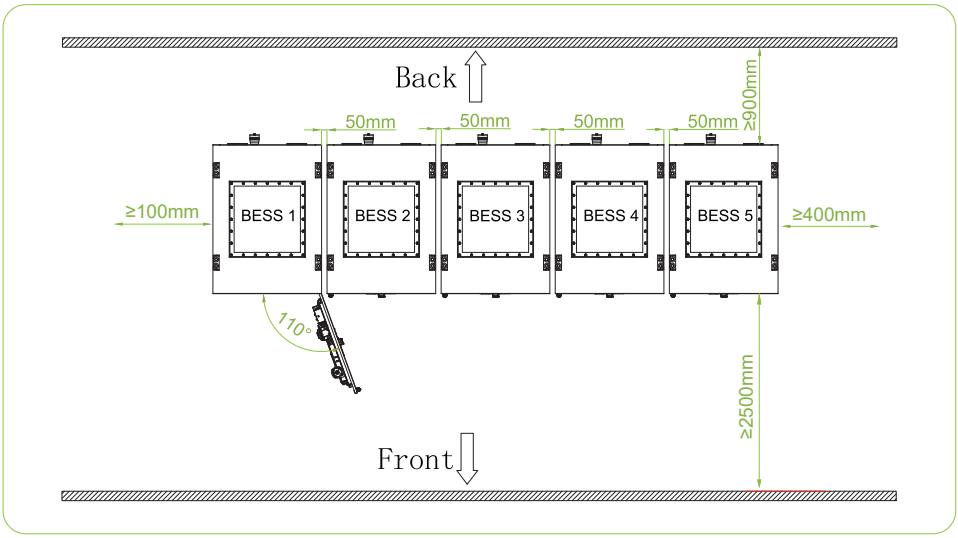
The distances between the cabinets or the surrounding objects shall meet the following requirements.

- Layout plan 1 (single cabinet)

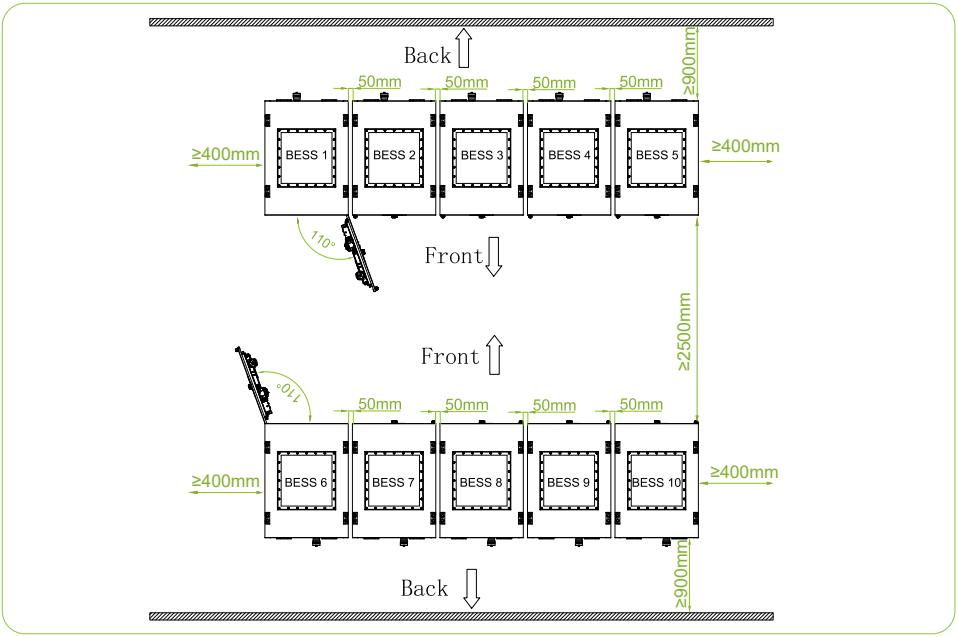




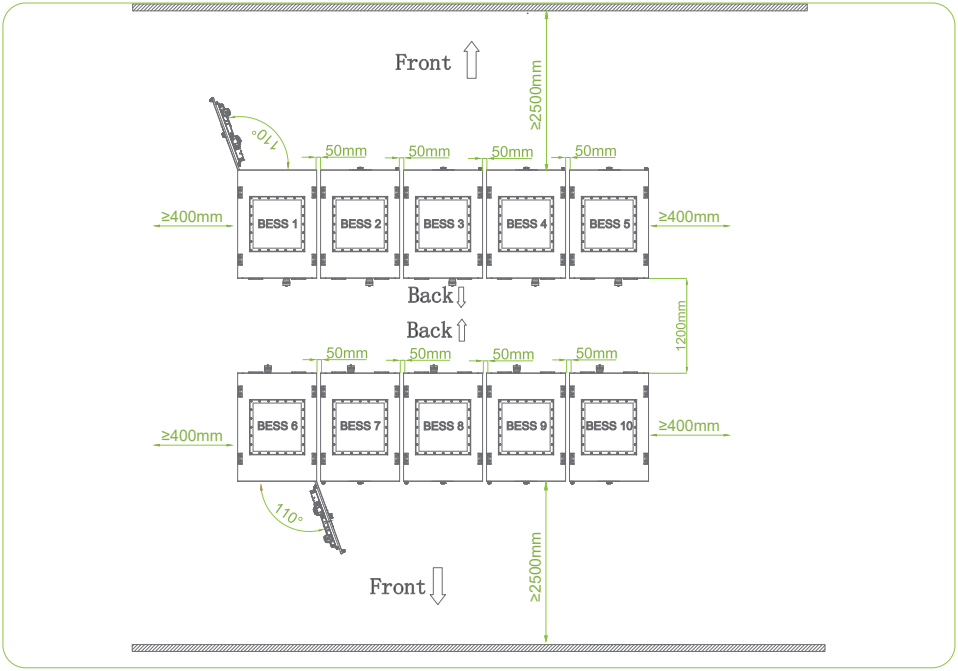
- Layout plan 2 (multiple cabinets - In One Line)



- Layout plan 3 (multiple cabinets - Front to Front)



- Layout plan 4 (multiple cabinets - Back to Back)

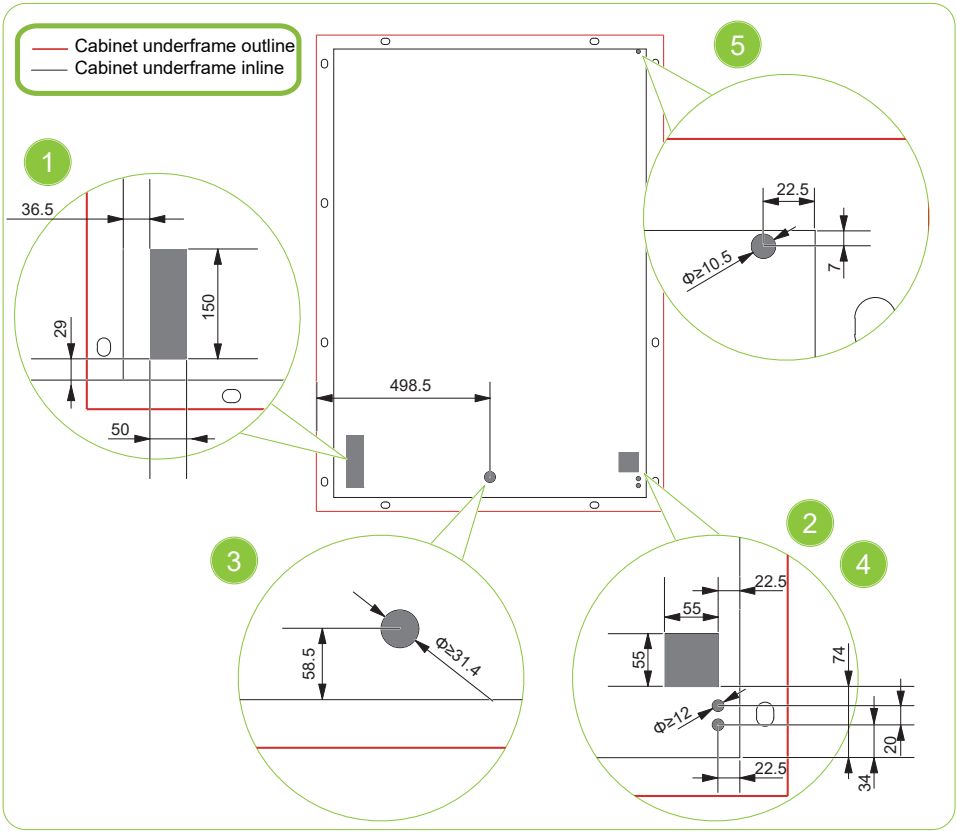


3. Install Cabinet

3.1 Foundation Preparation (for reference)

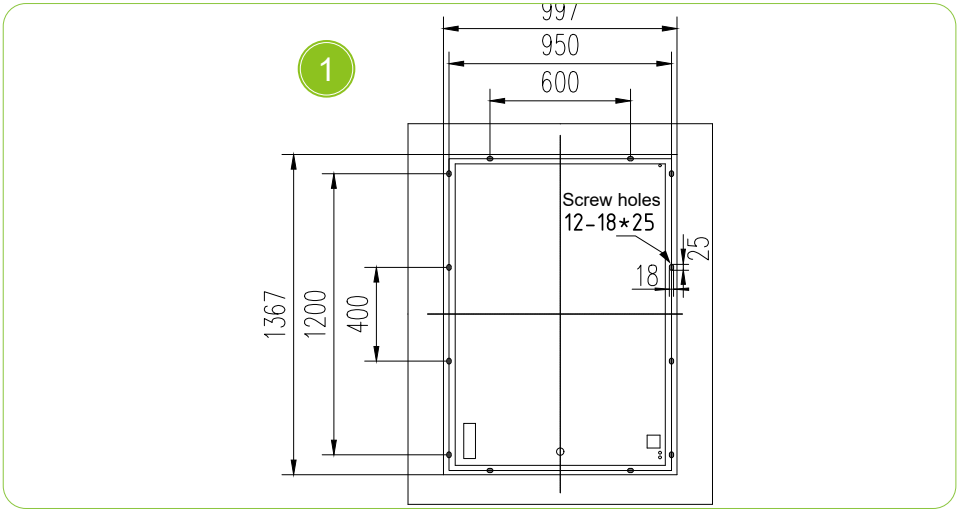
Step 1 Prepare Cable Holes and Drain Holes on Foundation

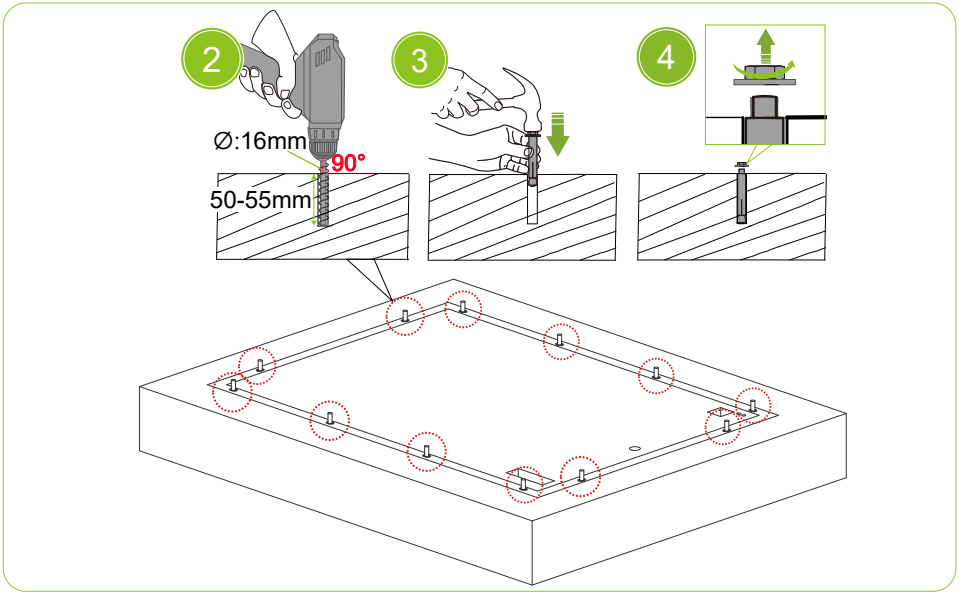
1. Prepare AC cable hole.
2. Prepare grounding and COM cable hole.
3. Prepare cabinet dewatering hole.
4. Prepare dehumidifier dewatering hole (lower one) and drain hole (upper one).
5. Prepare dewatering hole.



Step 2 Prepare Installation Holes on Foundation

1. Mark 12 expansion bolt holes for cabinet installation.
2. Drill expansion bolt holes
3. Knock in M12 expansion bolts provided.
4. Take off nuts and gaskets.

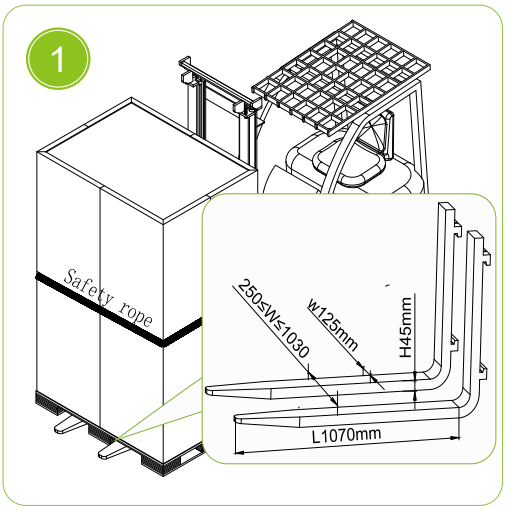


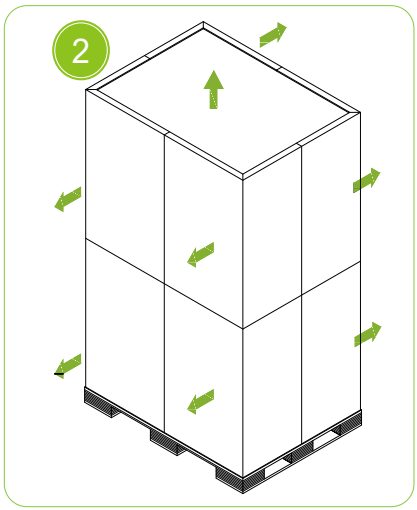


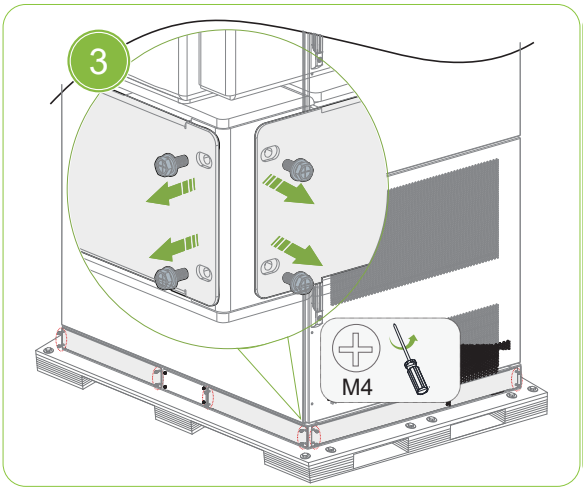
3.2 Install Cabinet onto Foundation

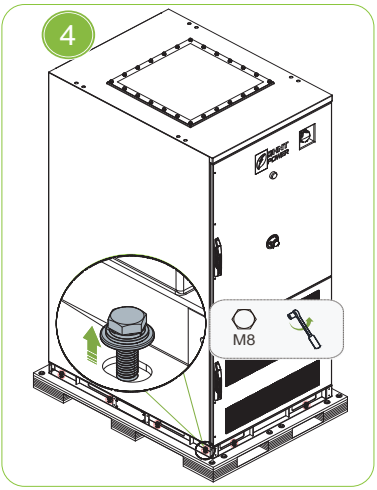
Step 1 Remove Cabinet from Pallet

1. Move cabinet to installation site.
2. Unpack its outer film, styrofoam and package.
3. Remove 24 fastening bolts and take off 6 seal plates.
4. Remove 12 fastening bolts to disassemble cabinet from pallet.







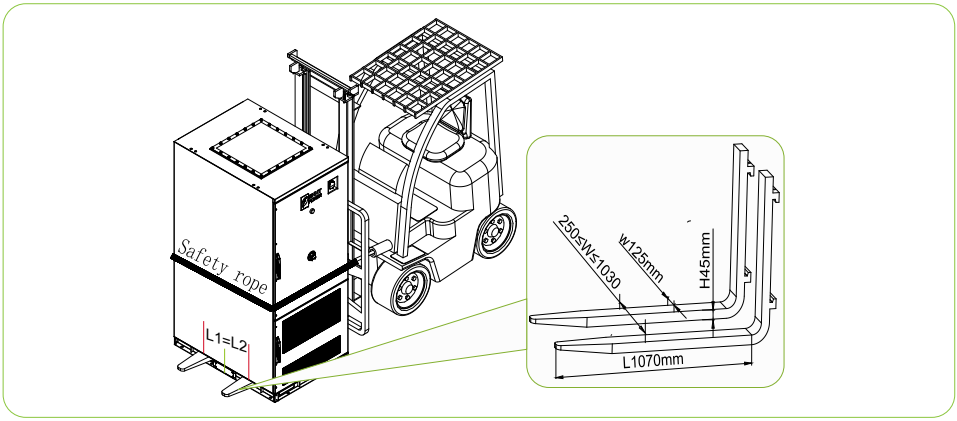


Step 2 Lift or Hoist Cabinet

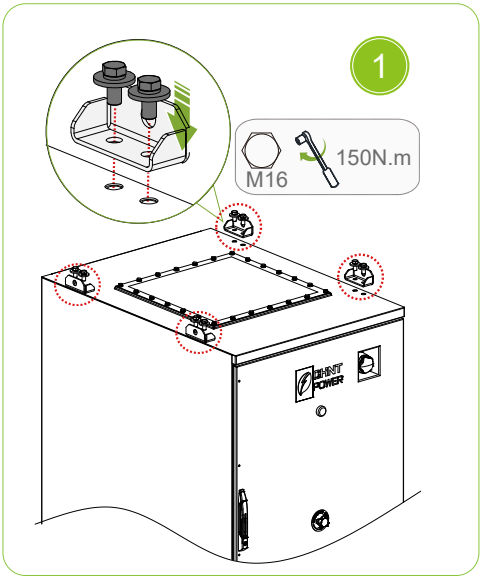
CAUTION

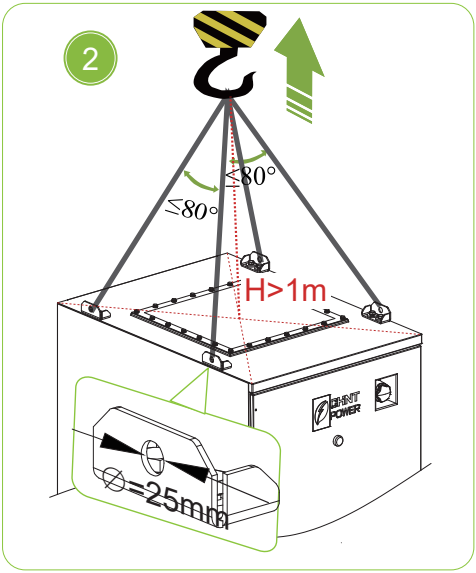
Position forklift arms evenly on both sides of vertical central lines of the cabinet, or keep crane hooks directly above the top center of the cabinet, to prevent the cabinet from tilting or falling.

- Option 1: Lift by forklift (load-bearing capacity ≥ 5 t)



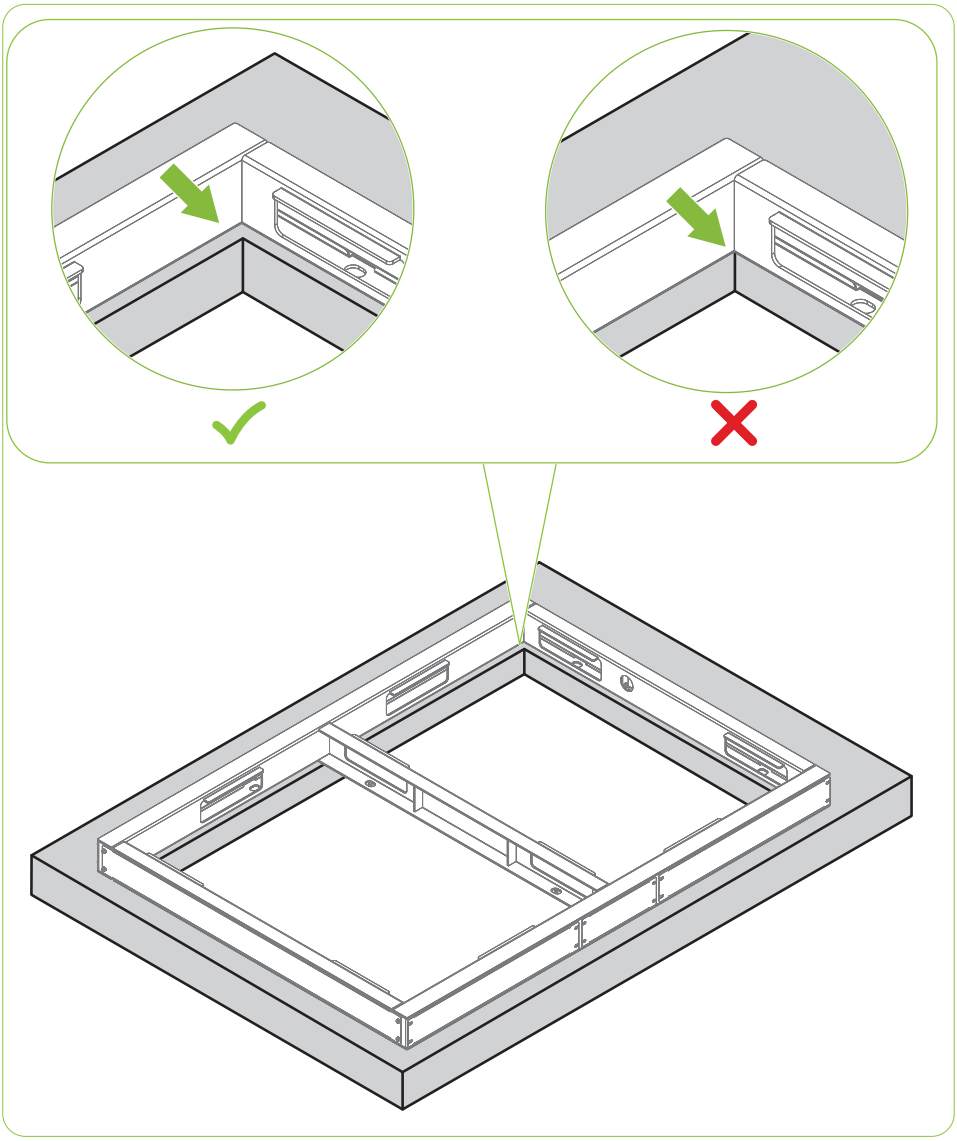
- Option 2: Install lifting lugs provided and hoist by crane (hoisting capacity ≥ 5t)





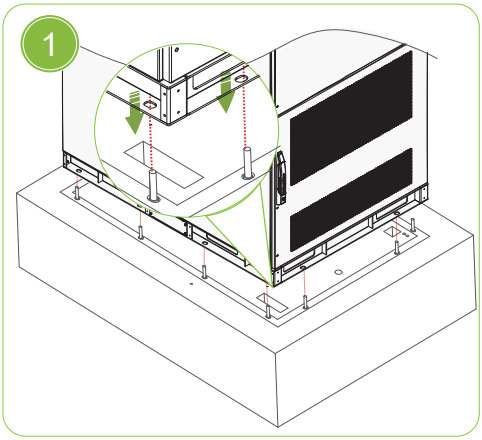
⚠ NOTICE

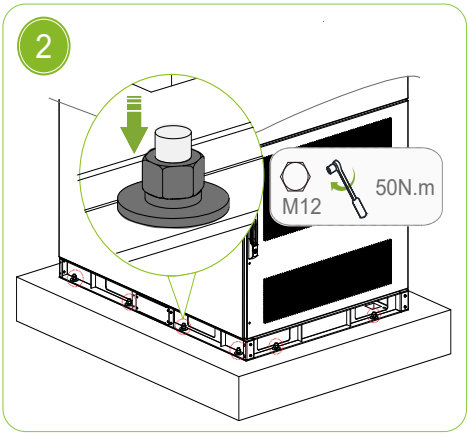
Ensure all the bottom frames are fully seated on the foundation. No supports shall be left unsupported or suspended.



Step 3 Fasten Cabinet onto Foundation

1. Align all cabinet installtion holes with expansion bolts on foundation.
2. Tighten gaskets and nuts to fasten cabinet.
3. Recover seal plates.

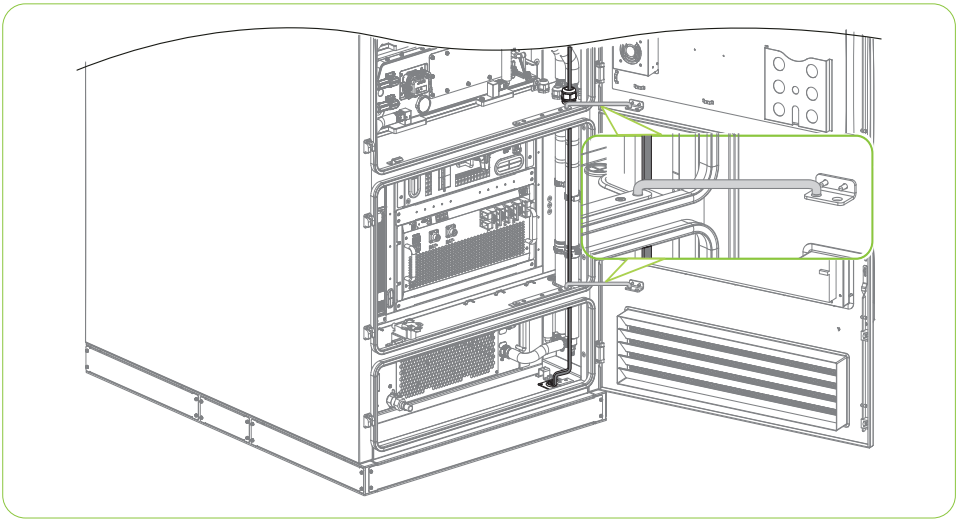






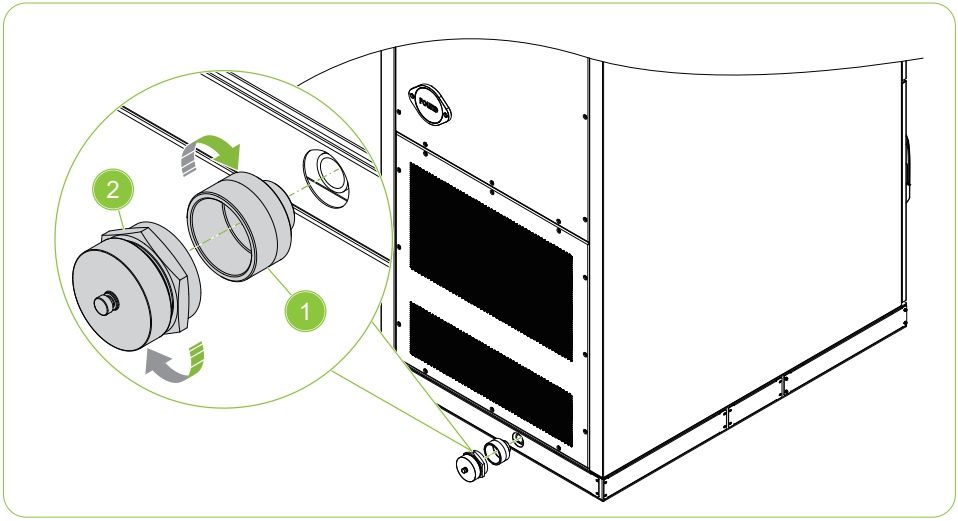
3.3 Open and Support Cabinet Door

Open the upper and lower cabinet doors by keys provided and move the free end of two support rods to the fastening holes of cabinet doors.



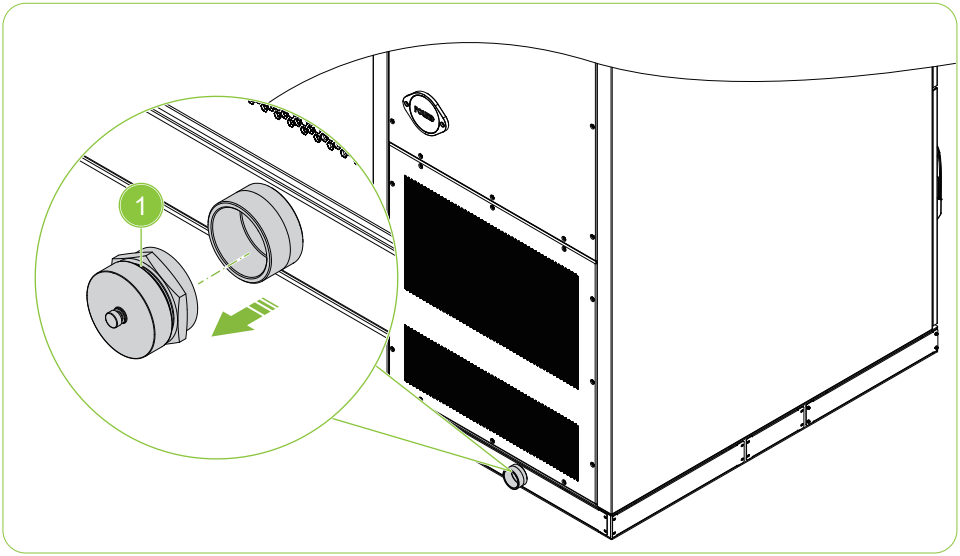
3.4 Install Water Pipe Connector

1. Tighten the reducing adapter (1).
2. Tighten the quick connector (2).

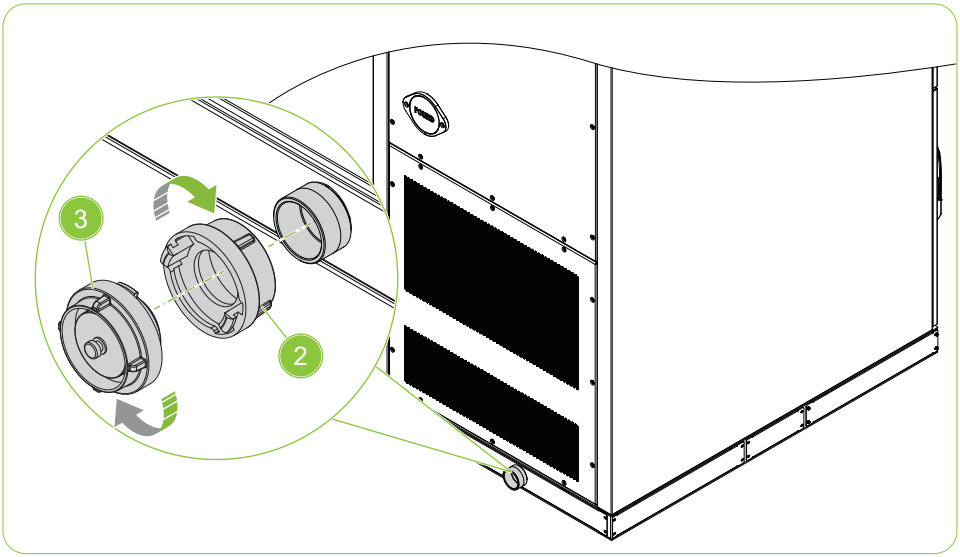


3.5 Install Storz-c Type Cap (Optional, Germany only)

1. Remove the quick connector (1).



2. Install the storz-c female thread adapter (2) and storz-c type cap.(3)



4. Cable Connection

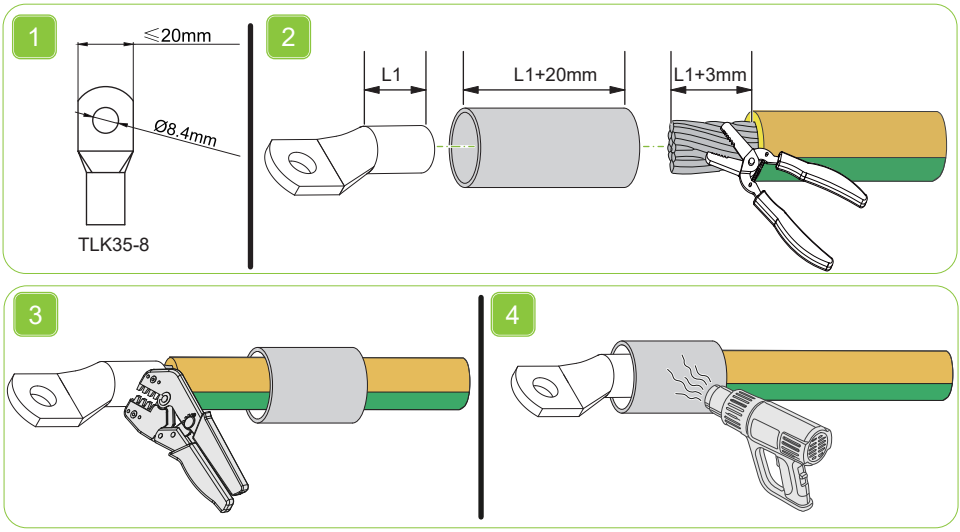
4.1 Cable Specification

Name	Cable Type	Conductor Cross Sectional Area
Grounding Cable	Cables specialized for outdoor use	35mm²
L1/L2/L3/N Cable	Outdoor four/five-core copper wires	>70mm² (Single pahse)
COM Cable	CAT-5e	NA

4.2 Grounding Cable Connection

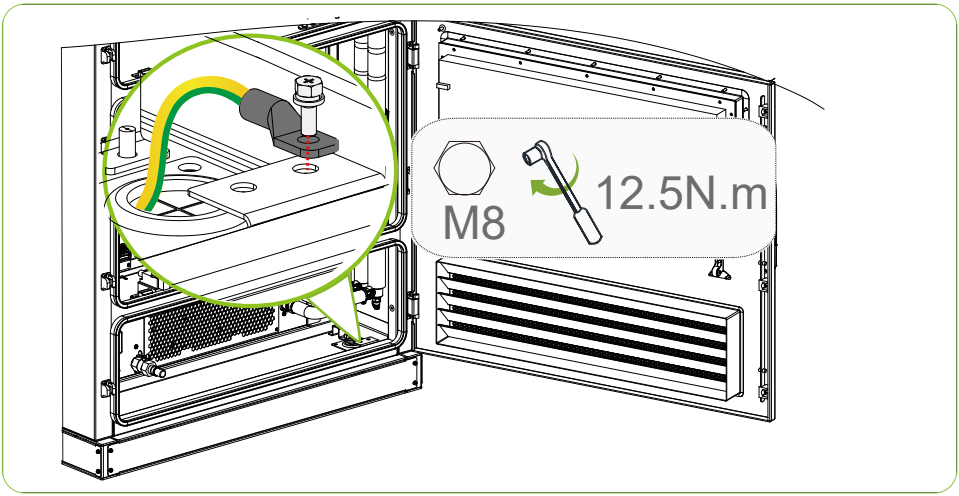
Step 1 Cable Crimping

1. Prepare grounding terminal (TLK35-8 is recommended).
2. Strip off wire and prepare heat shrink tubing.
3. Install heat shrink tubing and crimp wire on terminal.
4. Seal heat shrink tubing using hot air gun.



Step 2 Cable Connection

Pass grounding cable through cable hole and tighten it onto grounding busbar.



4.3 AC Cable Connection

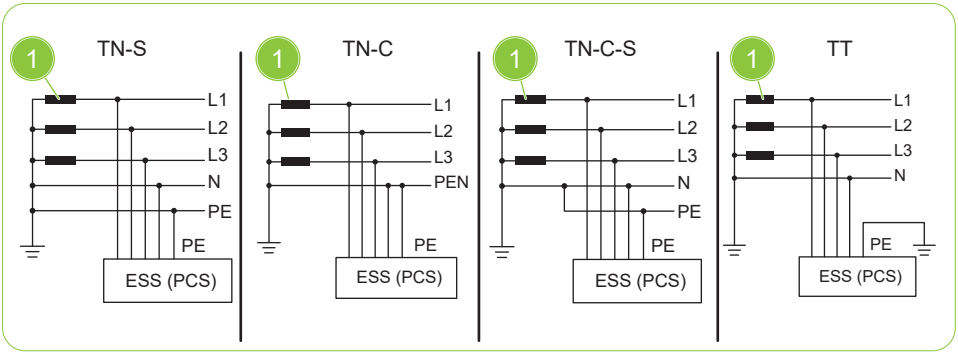
4.3.1 Earthing System

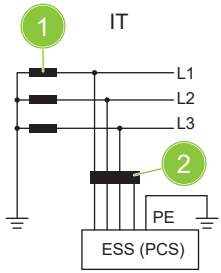
NOTICE

The standard ESS supports TN-S, TN-C, TN-C-S, and TT systems.

The IT system needs specilized custormized.

For the TN-S, TN-C, TN-C-S and TT system, the neutral wire of the ESS must be connected to the power grid.





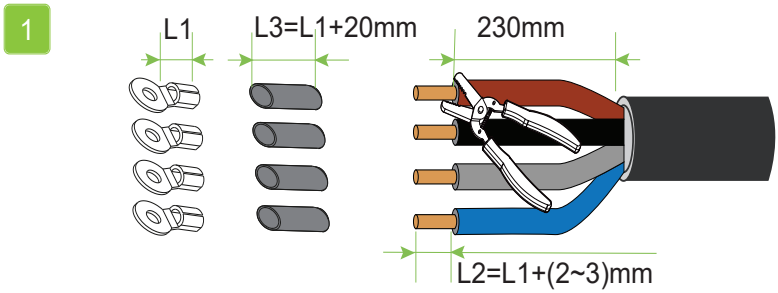
1. Transformer 2. Isolation transformer (prepared by customer)

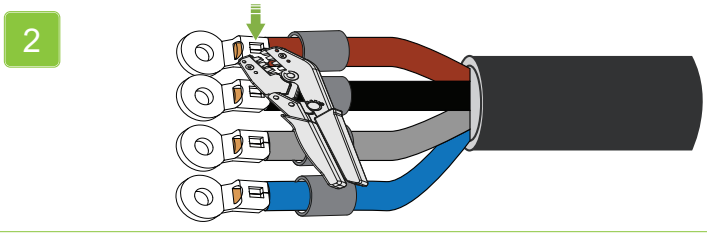
4.3.2 Connnection Steps

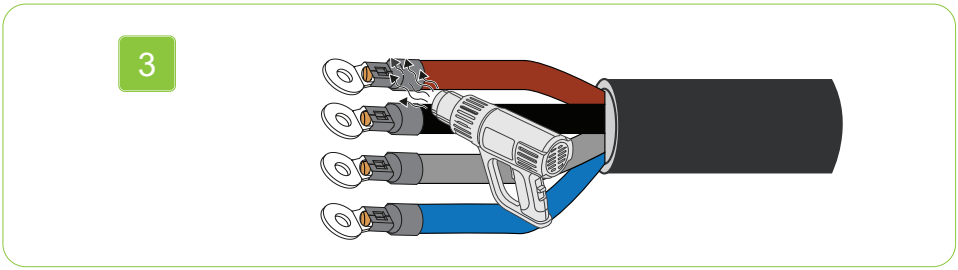
Here we take four-core wires connection method for an example. For five-core wires, connect PE wire to grounding terminal near the AC busbar by refer to section 4.2.

Step 1 Cable Crimping

1. Strip off wire and prepare heat shrink tubing.
2. Install heat shrink tubing and crimp wires on DT terminals provided.
3. Seal heat shrink tubing using hot air gun.

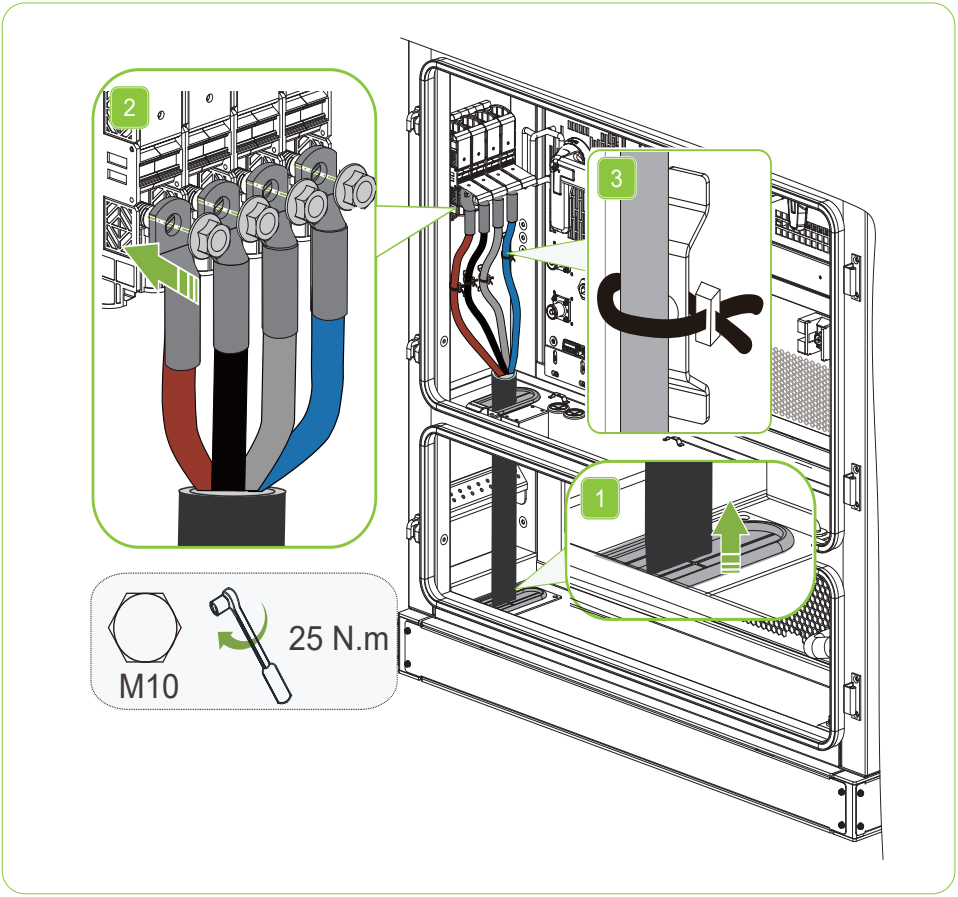






Step 2 Cable Connection

1. Pass AC cable through cable hole in order.
2. Tighten nuts to fasten AC wires onto AC busbar.
3. Bundle wires onto wire ferrules one by one with cable ties.



4.4 Connect Communication Cables

Step 1 Pass Cable to Wiring Area

1. Pass cable through the cable incoming hole.
2. Loosen the gland and pass cable through it.

Step 2 Connect RS485 Communication Cable

1. Strip the shielded twisted pair from external electric meter or PV devices.
2. Crimp the wires into PIN1-485A and PIN2-485B of the DB9 connector.
3. Connect the DB9 connector to the COM3/4 port of EMS.

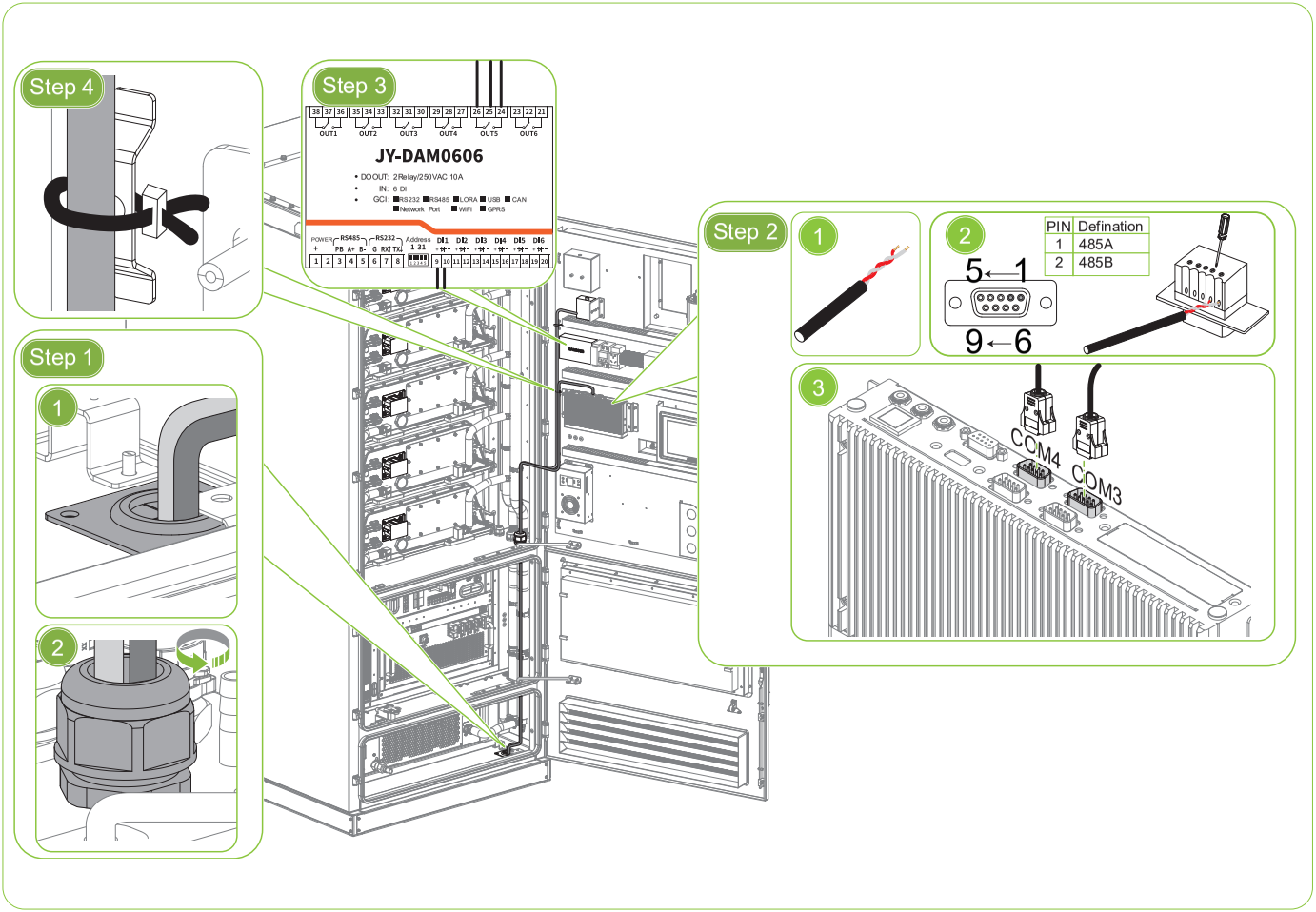
> **NOTICE**
>
> When PV inverter is required for AC Couple on-site, please refer to the quick installation guide of the PV inverter to link it to the Matricloud. Although the inverter can be controlled via EMS C1000, they still need independent MatriCloud communication like dongle or COM BOX. For more details, please contact the CPS engineers and sales representatives.

Step 3 Connect Control Cable

Connect the control cable to port 9-18 and port 24-35 of IO module 1 refer to the wiring diagram provided in cabinet and according to actual wiring demands on site.

Step 4 Adjust and Bundle Cables

Adjust and bundle wires onto corresponding wire ferrules one by one with cable ties.

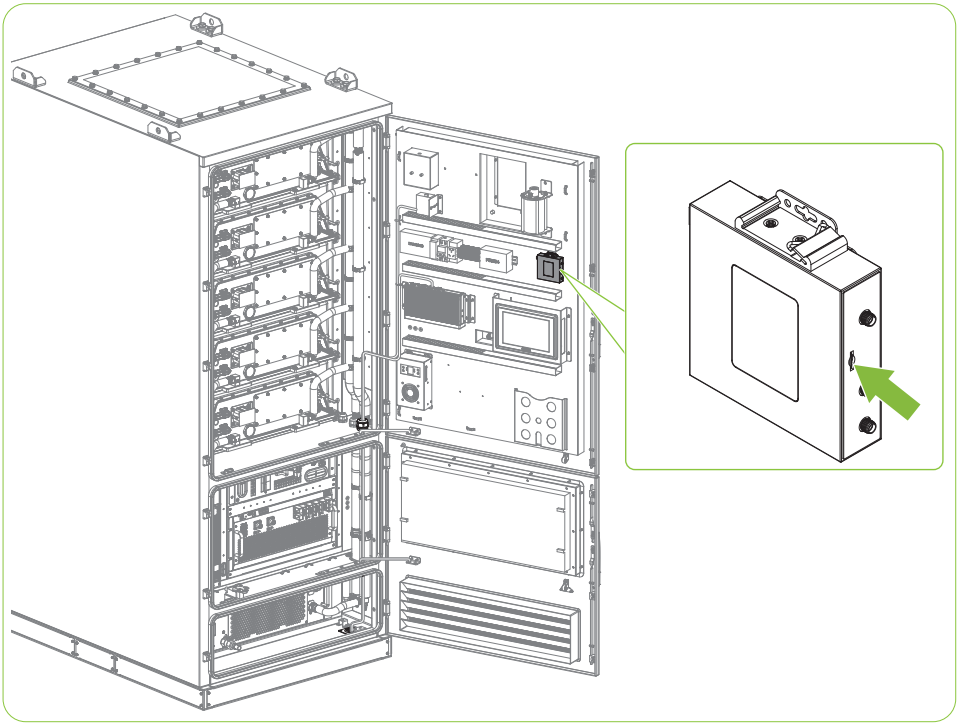

Step 4
Step 3
JY-DAM0606
• DO OUT: 2 Relay/250 VAC 10A
• IN: 6 DI
• GCI:
Step 2
PIN Defination
1 485A
2 485B
5 1
9 6
Step 1
COM4
COM3

4.5 Connect to External Internet

4.5.1 Access internet through 4G

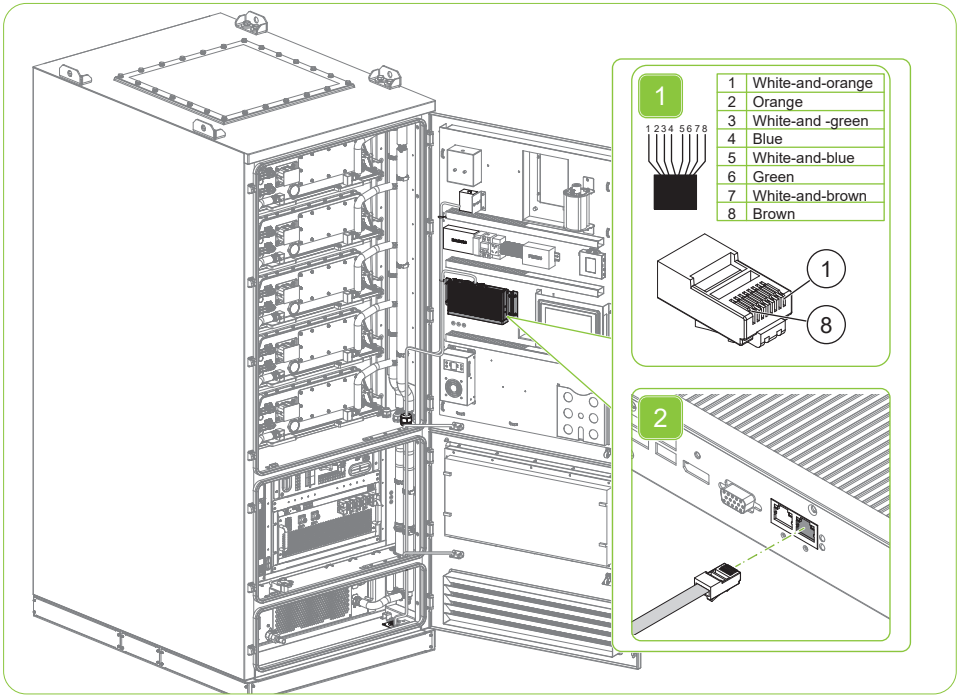
1. Insert the SIM card into the 4G router.

> **NOTICE**
>
> The SIM card must have been activated.



4.5.2 Access internet through network cable

1. Crimp RJ45 connector onto network cable end.
2. Remove the old network cable from the LAN1 of EMS and Insert the new network cable into the LAN1 of EMS.

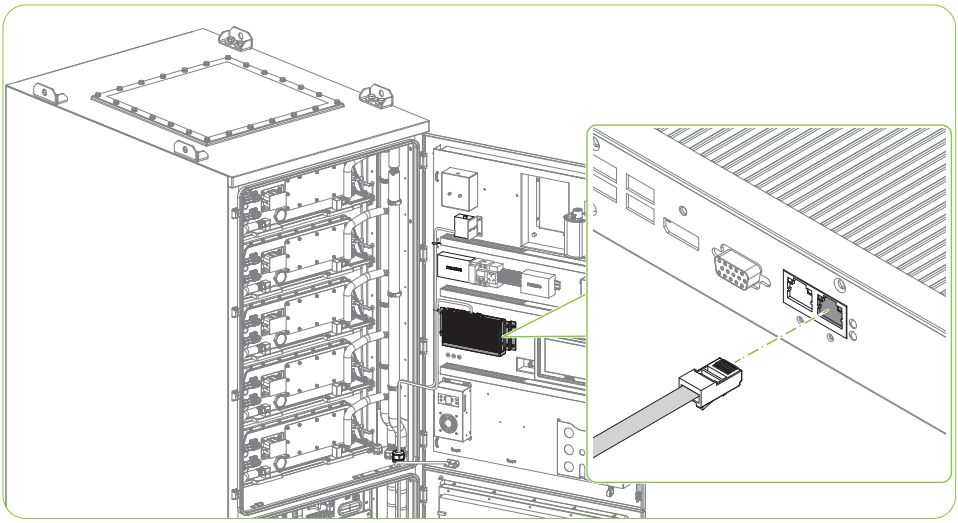


4.6 Connect to Thrid-party EMS and Internet (Optional)

> **NOTICE**
>
> If you need to connect the equipment to third-party EMS, you need to provide the RJ45 network cable.

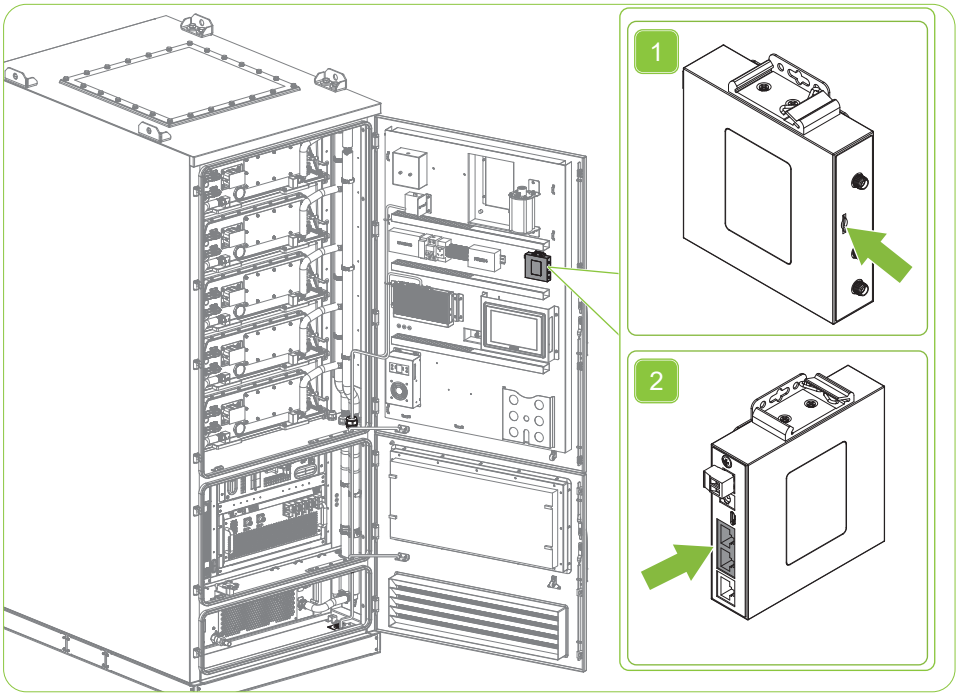
- Option 1: The third-party EMS is already connected to the internet.

1. Connect the network cable (From third-party EMS) to PC and check if the cable is connected to the internet (Refer to commissioning user manual for detail).
2. After checking, remove the old network cable from the LAN1 of EMS.
3. Insert the new network cable into the LAN1 of EMS.



- Option 2: The third-party EMS is not connected to the internet.

1. Insert the activated SIM card into the 4G router.
2. Connect the network cable (From third-party EMS) to the free LAN port of the 4G router.

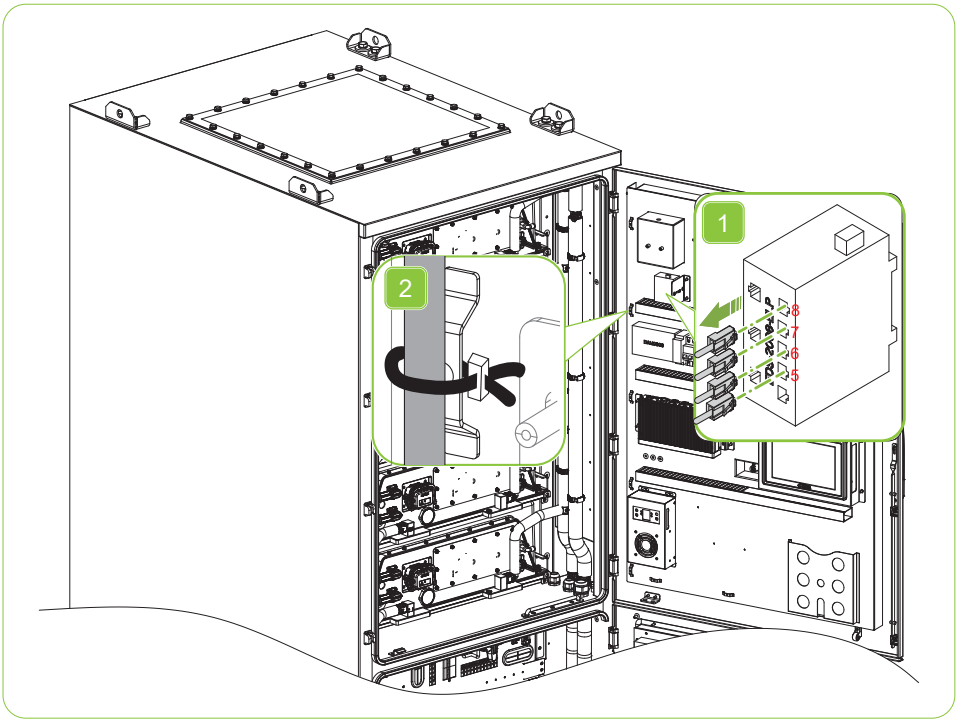


4.7 Communication for Parallel Connection

For the cabinet introduced all above which is configurated with EMS (Energy Management System) and ESMU (Energy Storage Management Unit), herein after we shortly call it "Cabinet A". For cabinet doesn't have EMS (Energy Management System) and ESMU (Energy Storage Management Unit), we shortly call it "Cabinet B".

In addition, you can perform the following steps to use "Cabinet A" as a "Cabinet B":

1. Unplug network cables from switchboard LAN5-6-7-8 ports.
2. Bundle them onto ferrule with cable ties.



NOTICE

Unplug network cable from swtichboard LAN5 port of cabinet B whenever cabinet B are connected in parallel.

4.7.1 Cabinet A & B in Parallel

Step 1 Pass Cables to Wiring Areas of Cabinet A & B

1. Pass cable through the bottom cable incoming hole.
2. Pass cable through the internal cable incoming hole.
3. Loosen the gland and pass cable through it if necessary.

Step 2 Connect Parallel Network Cable

1. Crimp RJ45 connectors onto parallel network cable ends.
2. Connect one RJ45 connector to swtichboard LAN4 port of cabinet A
3. Connect the other RJ45 connector to swtichboard LAN8 port of cabinet B.

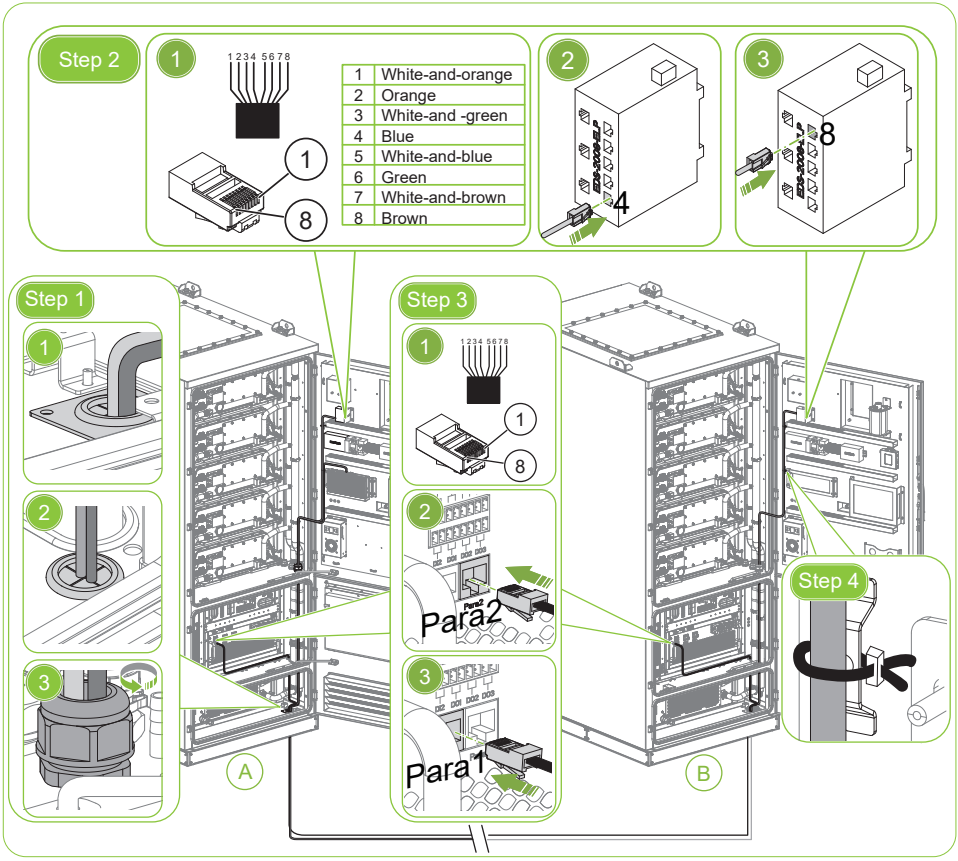
> **NOTICE**
>
> If it's necessary to connect third-party EMS, connect its network cable to swtichboard LAN5 port of cabinet B.

Step 3 Connect Synchronous Network Cable

1. Crimp RJ45 connectors onto synchronous network cable ends.
2. Connect one RJ45 connector to PCS Para2 port of cabinet A
3. Connect the other RJ45 connector to PCS Para1 port of cabinet B.

Step 4 Adjust and Bundle Cables

Adjust and bundle wires onto corresponding wire ferrules one by one with cable ties.


Step 2
1
1 2 3 4 5 6 7 8
1
8
1 White-and-orange
2 Orange
3 White-and -green
4 Blue
5 White-and-blue
6 Green
7 White-and-brown
8 Brown
2
4
3
8
Step 1
1
2
3
A
Step 3
1
1 2 3 4 5 6 7 8
1
8
2
Para2
3
Para1
B
Step 4

4.7.2 Cabinet B & B in Parallel

Step 1 Pass Cable to Wiring Areas of Cabinet B & B

1. Pass cable through the bottom cable incoming hole.
2. Pass cable through the internal cable incoming hole.
3. Loosen the gland and pass cable through it if necessary.

Step 2 Connect Parallel Network Cable

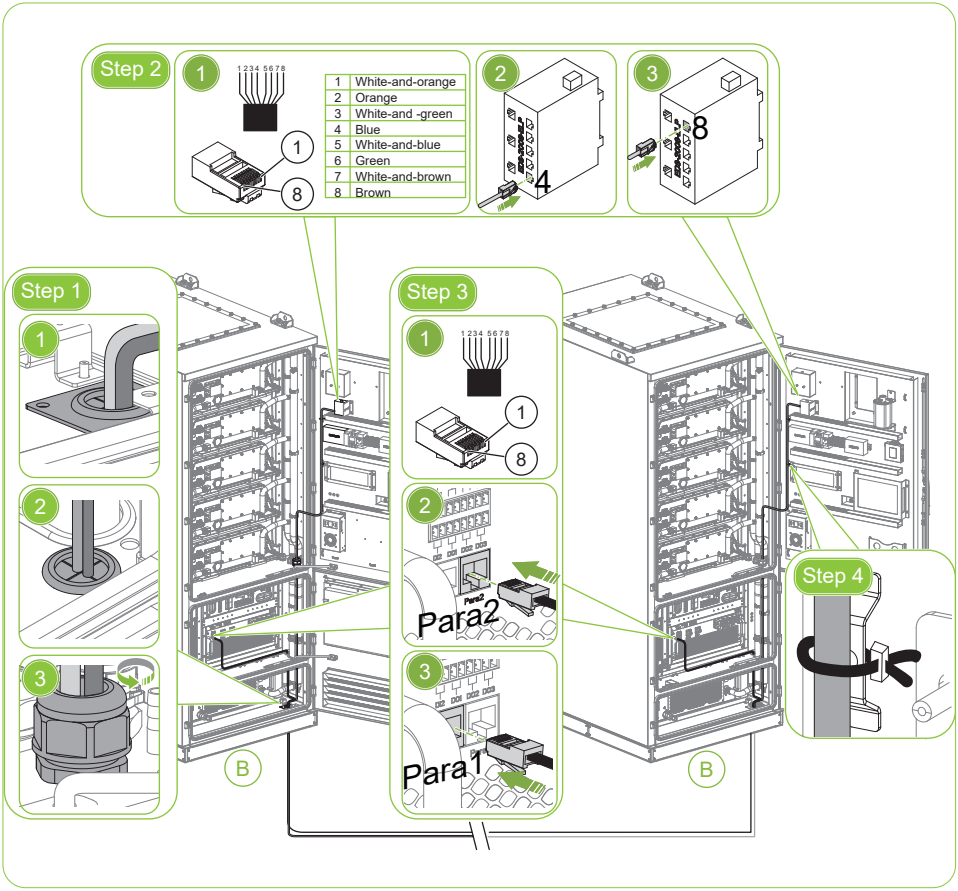
1. Crimp RJ45 connectors onto parallel network cable ends.
2. Connect one RJ45 connector to swtichboard LAN4 port of cabinet A
3. Connect the other RJ45 connector to swtichboard LAN8 port of cabinet B.

Step 3 Connect Synchronous Network Cable

1. Crimp RJ45 connectors onto synchronous network cable ends.
2. Connect one RJ45 connector to PCS Para2 port of cabinet A
3. Connect the other RJ45 connector to PCS Para1 port of cabinet B.

Step 4 Adjust and Bundle Cables

Adjust and bundle wires onto corresponding wire ferrules one by one with cable ties.


Step 2
1
1 2 3 4 5 6 7 8
1
8
1 White-and-orange
2 Orange
3 White-and -green
4 Blue
5 White-and-blue
6 Green
7 White-and-brown
8 Brown
2
4
3
8
Step 1
1
2
3
B
Step 3
1
1 2 3 4 5 6 7 8
1
8
2
Para2
3
Para1
B
Step 4

4.7.3 Cabinet STS & B in Parallel

Step 1 Pass Cable to Wiring Areas of Cabinet STS & B

1. Pass cable through the bottom cable incoming hole of cabinet STS.
2. Pass cable through the bottom cable incoming hole of cabinet B.
3. Pass cable through the internal cable incoming hole of cabinet B.
4. Loosen the gland of cabinet B and pass cable through it.

Step 2 Connect Parallel Network Cable

1. Crimp RJ45 connector onto parallel network cable ends.
2. Connect RJ45 connector to swtichboard LAN5 port of cabinet STS
3. Connect the other RJ45 connector to swtichboard LAN8 port of cabinet B.

Step 3 Connect Synchronous Network Cable for Cabinet STS

1. Strip wires and install tubular terminals
2. Crimp tubular terminals onto network wire ends.
3. Connect and tighten them to terminal bolck 2XT-1/2/3/4 port of cabinet STS.

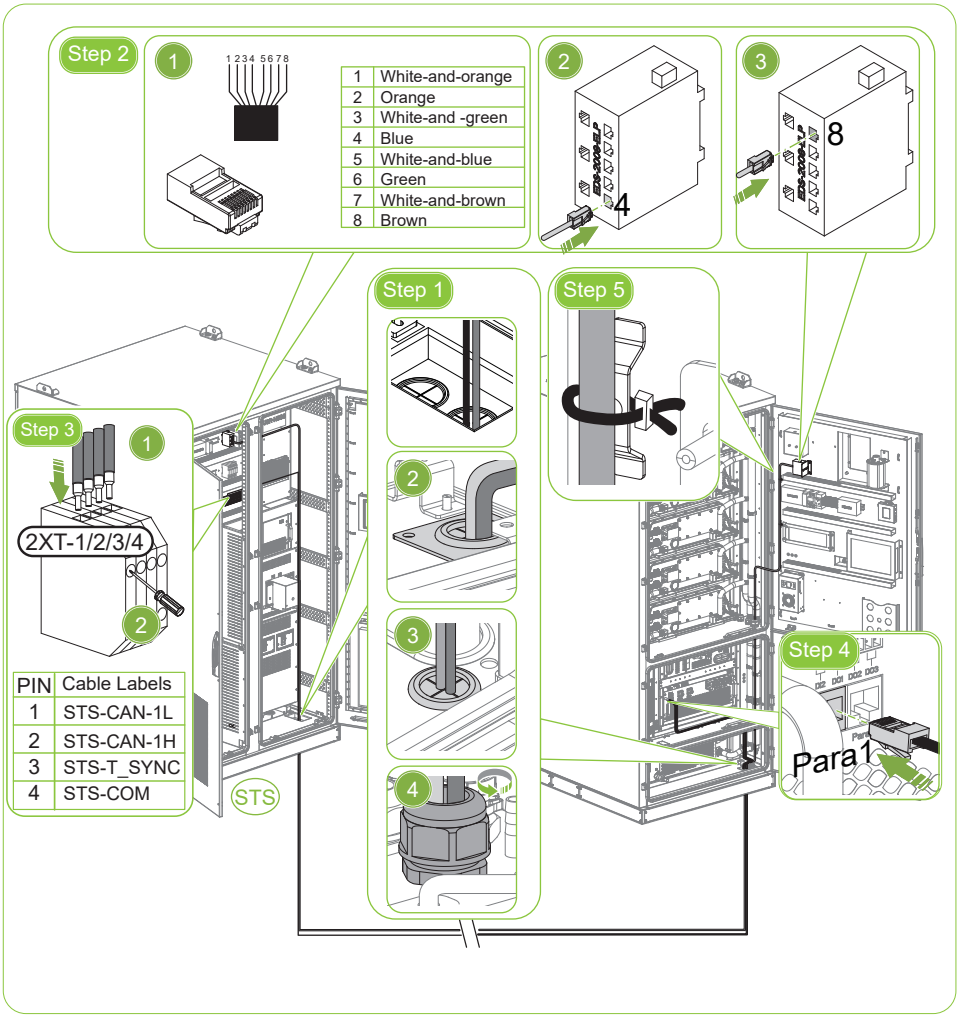
Step 4 Connect Synchronous Network Cable for Cabinet B

1. Crimp RJ45 connector onto synchronous network cable end. refer to step 2.
2. Connect RJ45 connector to PCS Para1 port of cabinet B.

> ⚠ **NOTICE**
>
> Synchronous Network Cable is provided as standard.

Step 5 Adjust and Bundle Cables

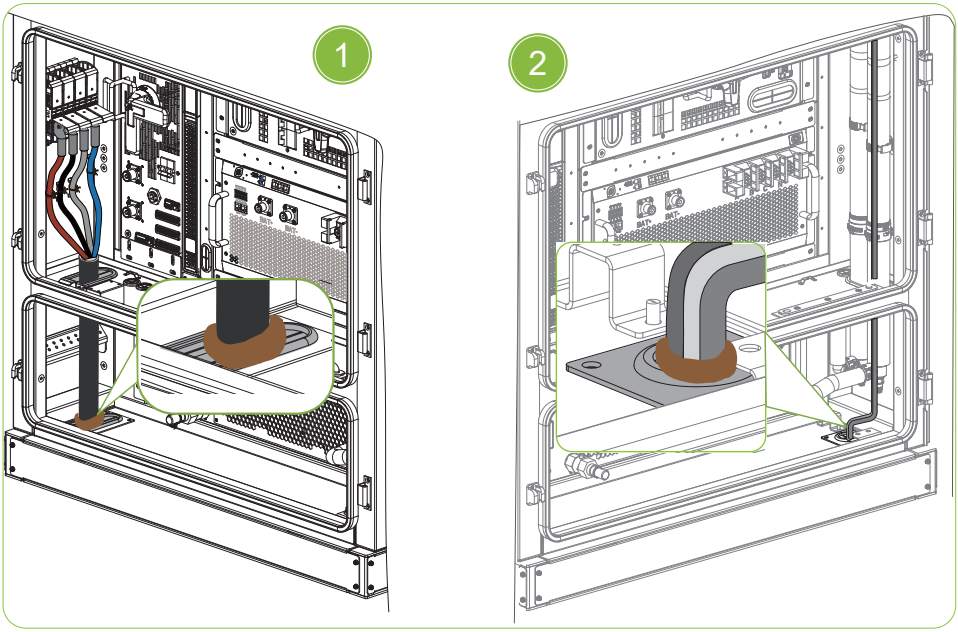
Adjust and bundle wires onto corresponding wire ferrules one by one with cable ties.


Step 2
1
1 2 3 4 5 6 7 8
1 White-and-orange
2 Orange
3 White-and -green
4 Blue
5 White-and-blue
6 Green
7 White-and-brown
8 Brown
2
4
3
8
Step 1
1
2
3
4
Step 5
Step 3
1
2XT-1/2/3/4
2
PIN Cable Labels
1 STS-CAN-1L
2 STS-CAN-1H
3 STS-T_SYNC
4 STS-COM
STS
Step 4
Para1

4.8 Apply Fireproof Putty

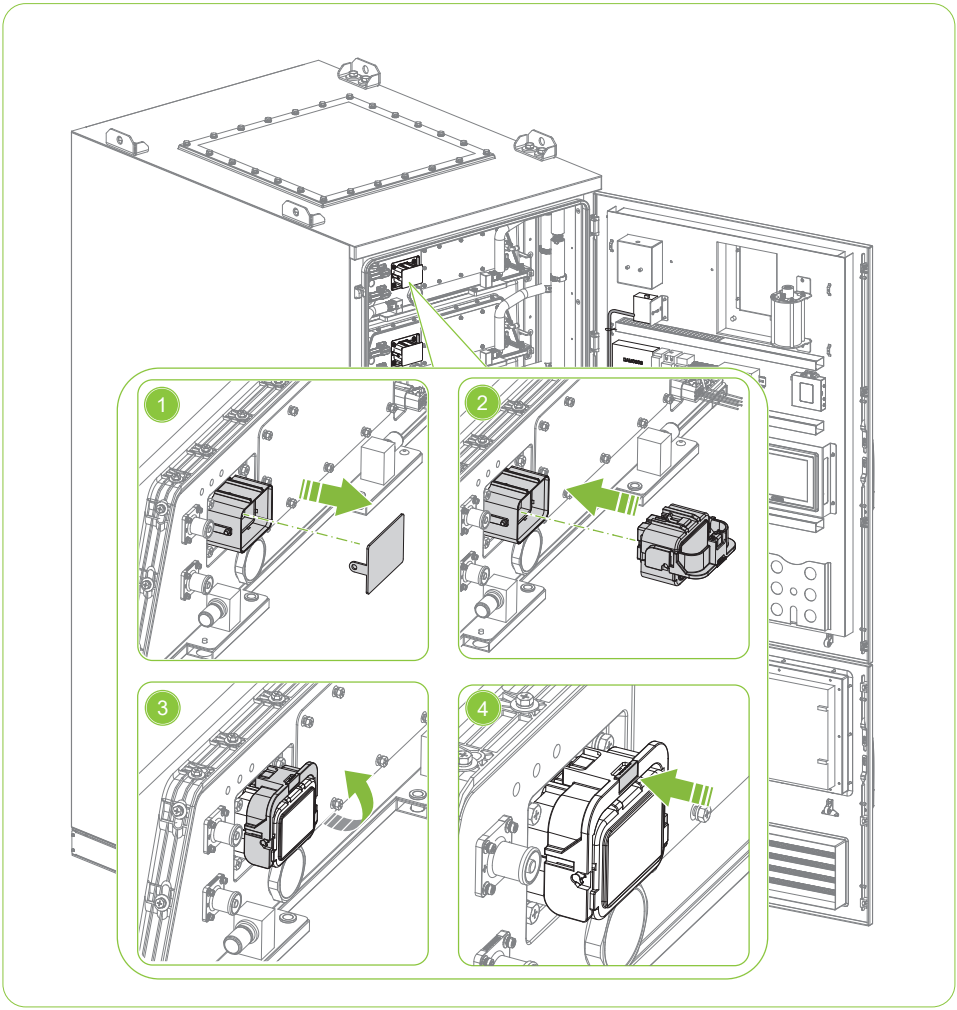
> ⚠ NOTICE
>
> Apply fireproof putty around every bottom incoming cables to prevent watervapor ingress, air circulation and condensing inside cabinet.

1. Apply fireproof putty around AC cable.
2. Apply fireproof putty around grounding and COM cables.



4.9 MSD Installation

1. Remove transparent protection cover.
2. Insert MSD into MSD guide slot of PACK.
3. Move handle upwards till hearing a "click" sound.
4. Push secondary lock button to lock it.



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