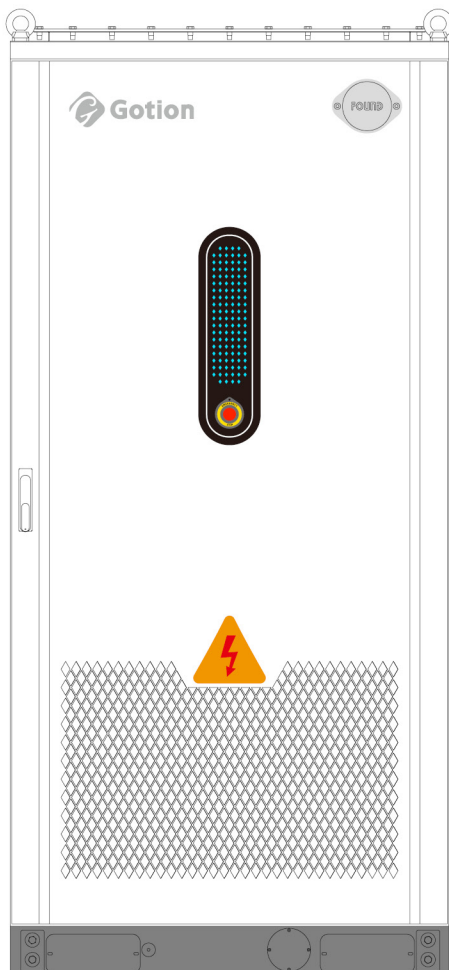


C&I ESS

Quick Installation Manual

快速安装手册



January 2026 Edition:

Nantong Gotion reserves the right of final interpretation of the contents of this brochure and retains the right to update product parameters and specifications at any time without prior notice.

Before installing the equipment, please read the user manual thoroughly to understand product information and safety precautions. Damage resulting from failure to store, transport, install, or use the equipment in compliance with this document and the user manual will not be covered under the product warranty.

This document may be updated periodically due to product version upgrades or other reasons. Unless otherwise agreed, this document is intended for guidance purposes only. All statements, information, and recommendations provided herein do not constitute any express or implied warranty.

安装设备前请详细阅读用户手册，了解产品信息及安全注意事项。未按照本文档与用户手册的内容存储、搬运、安装和使用设备而导致设备损坏，不在设备质保范围内。

由于产品版本升级或其他原因，本档内容会不定期进行更新。

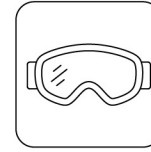
除非另有约定，本档仅作为使用指导，档中的所有陈述、信息和建议不构成任何明示或暗示的担保。

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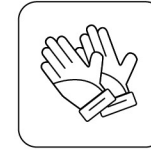
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◆ Appendix 01 附录 01

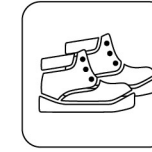
• Protective Gear 防护用具



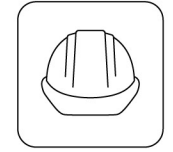
Goggles
护目镜



Insulated gloves
绝缘手套

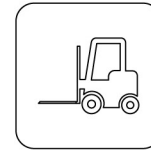


safety shoes
安全鞋

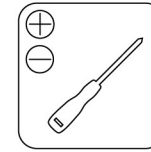


helmet
头盔

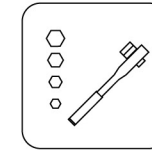
• Installation Tools 安装工具



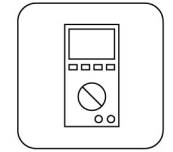
forklift
叉车



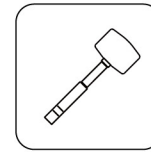
screwdriver set
螺丝刀套装



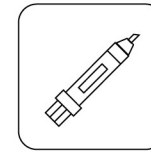
socket wrench set
套筒扳手套装



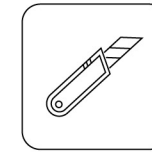
multimeter
万用表



hammer
锤子



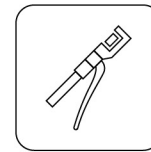
marker
记号笔



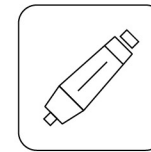
utility knife
美工刀



impact drill
冲击钻

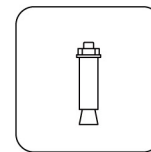


Crimping pliers
压接钳

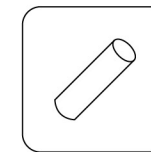


heat gun
热风枪

• Installing Supplies 安装耗材



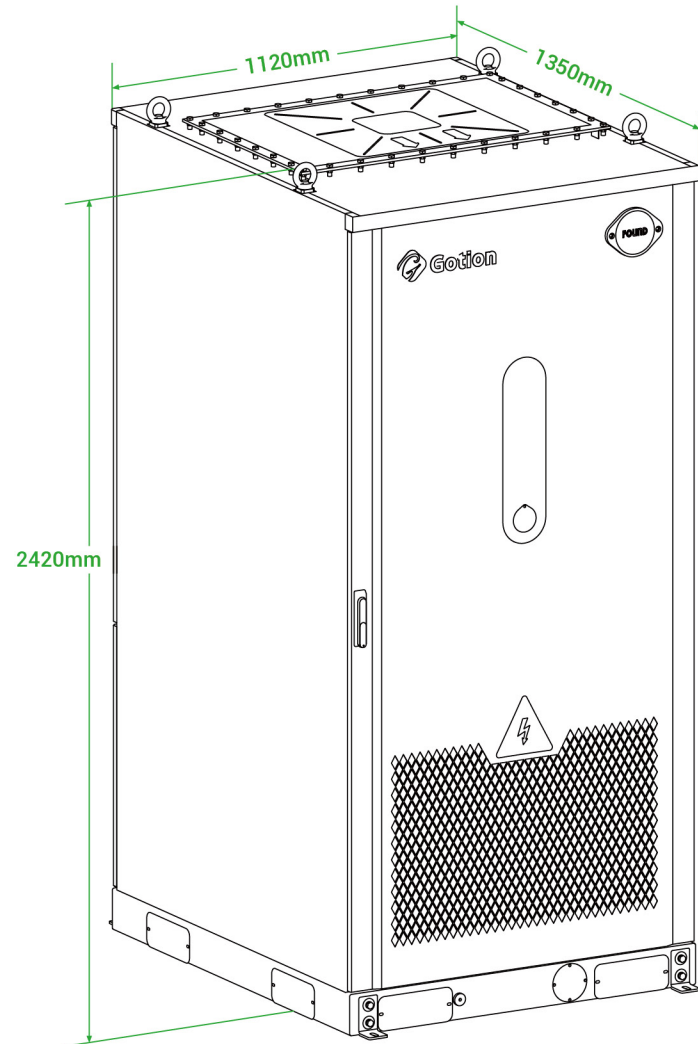
Expansion bolt
膨胀螺丝
diameter M12 or 1/2"
(length depends on the site, recommended ≥80mm)



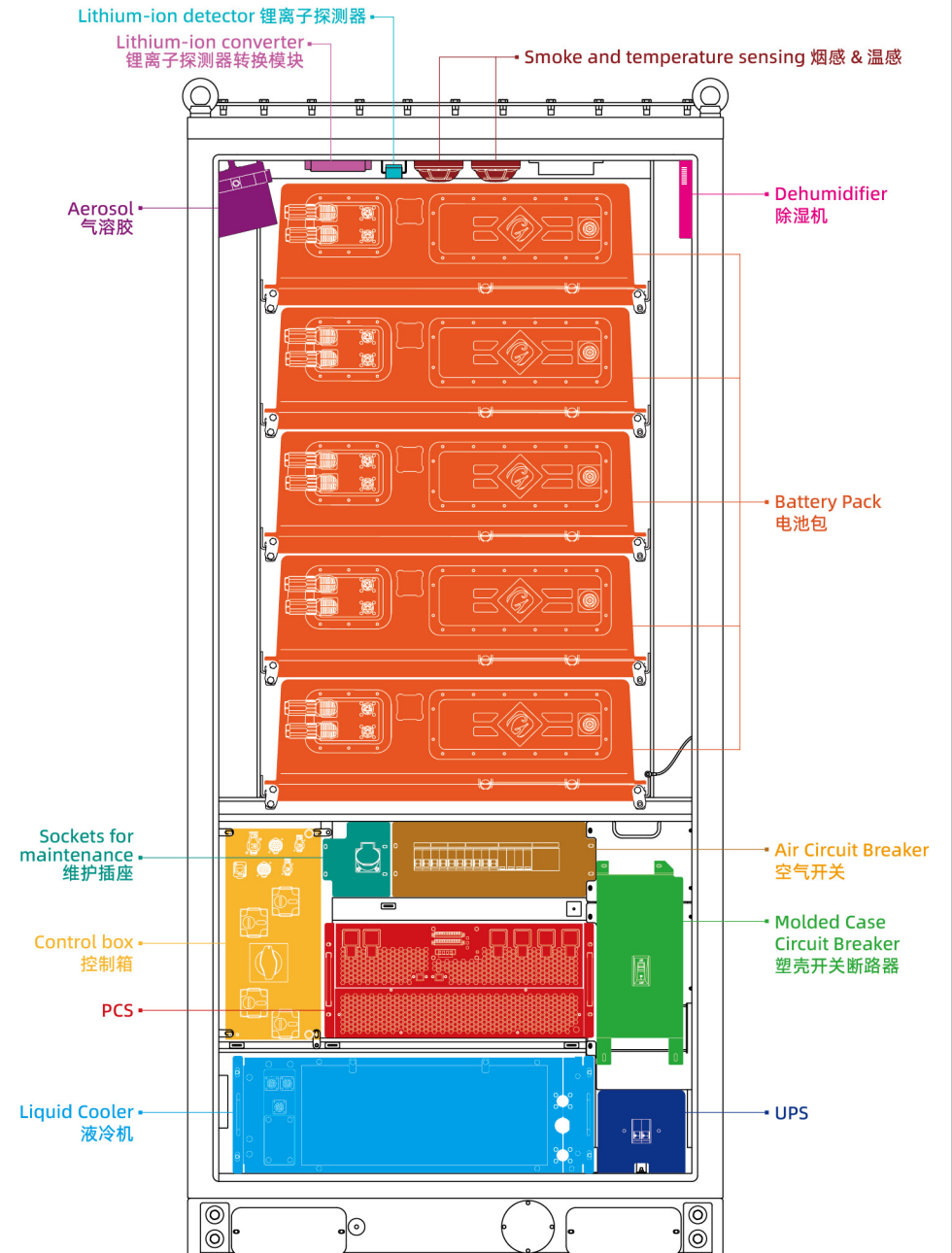
heat shrink tubing
热缩套管

1. Product Appearance 产品外观

1.1 Dimensions 三维尺寸



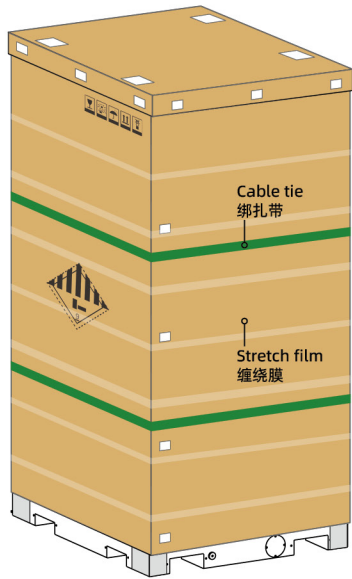
1.2 Functional Area 功能区



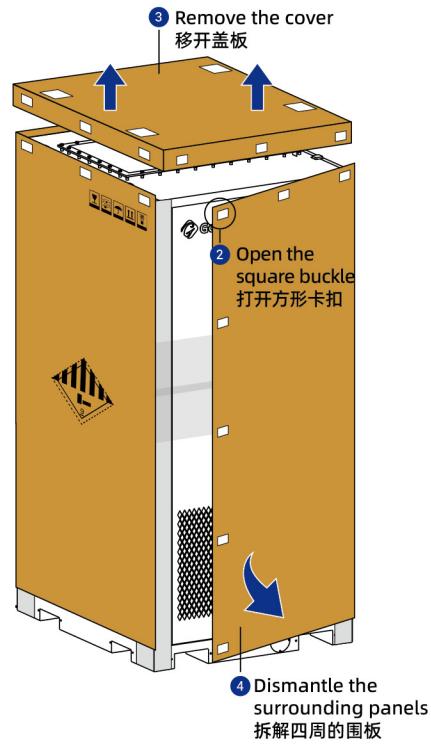
2.ESS Installation 储能系统安装

2.1 Packaging Removal 包装拆除

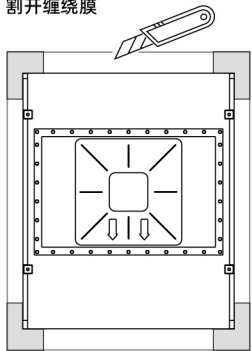
- ① Cut the cable ties, stretch film and pe bag
割开绑扎带, 缠绕膜和 pe 袋



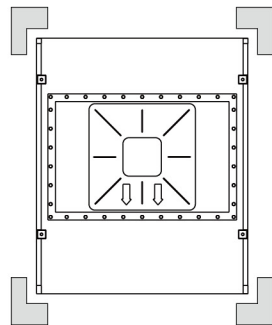
- ③ Remove the cover
移开盖板



- ⑤ Cut the stretch film
割开缠绕膜



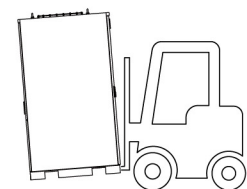
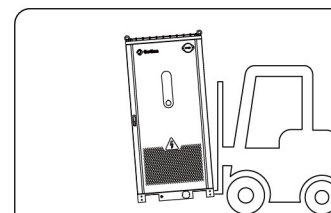
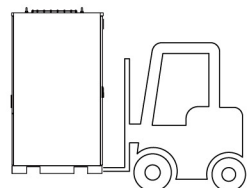
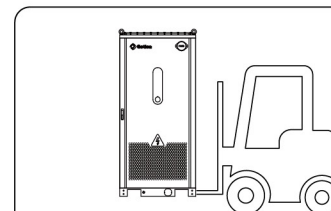
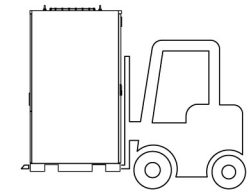
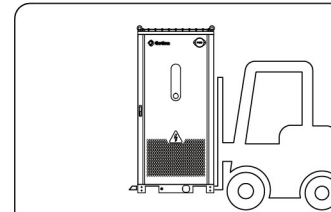
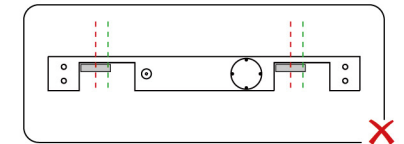
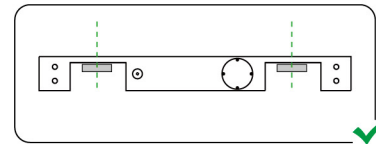
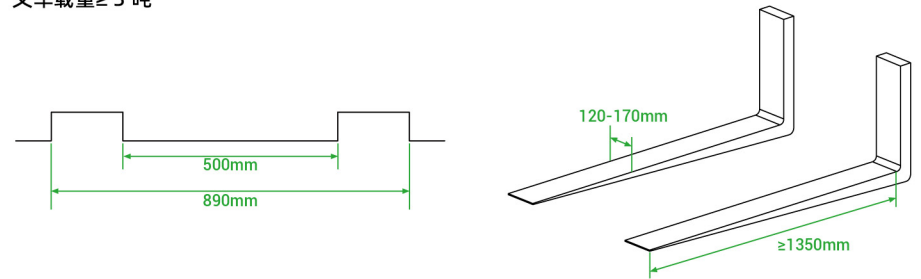
- ⑥ Remove the EPE cushioning cotton
移除 EPE 缓冲棉



2.2 Cabinet Handling 柜体移动

Plan A: Forklift handling 方案一: 叉车移动

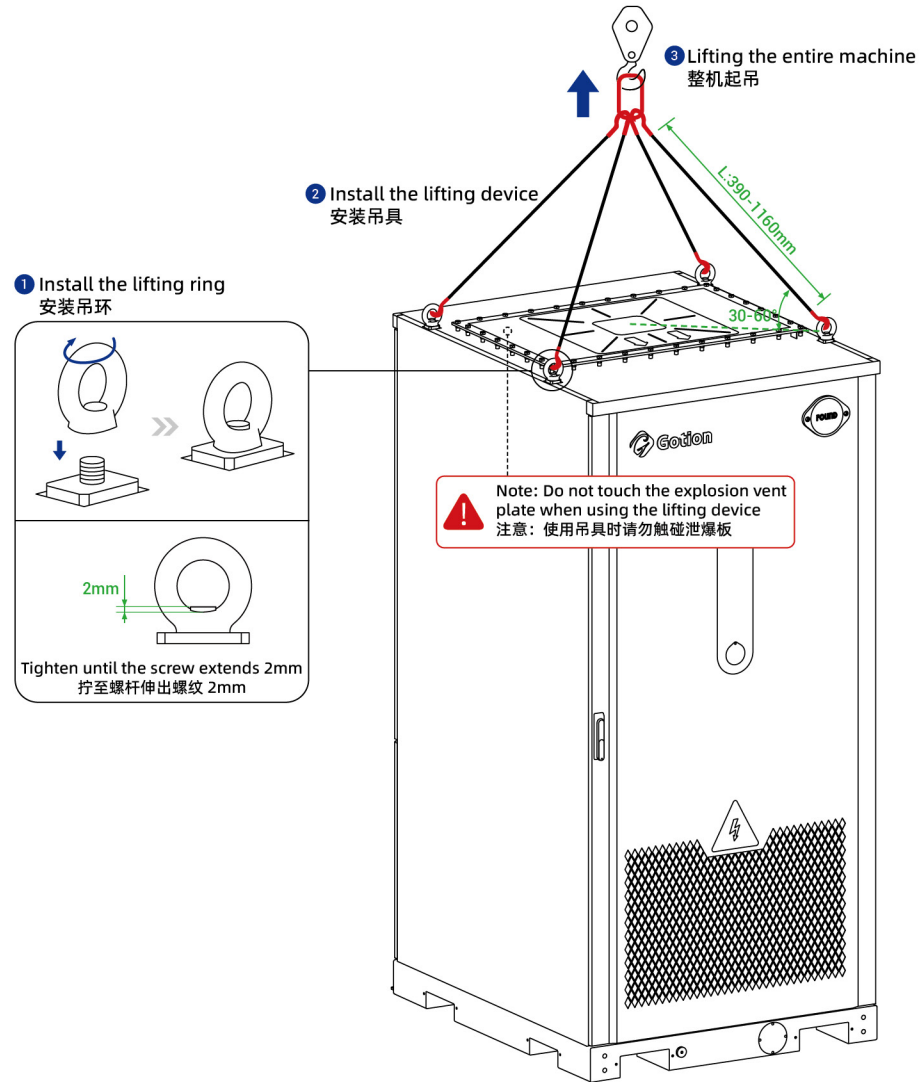
- Forklift: load-bearing capacity $\geq 3t$
叉车载重 ≥ 3 吨



2.2 Cabinet Handling 柜体移动

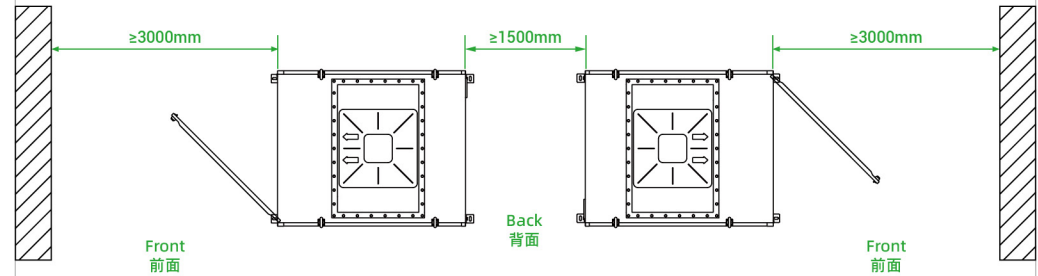
Plan B: Crane handling 方案二: 吊车移动

- hoisting capacity $\geq 3t$ operating radius $\geq 2m$
吊车载重 $\geq 3t$ 工作半径 $\geq 2m$

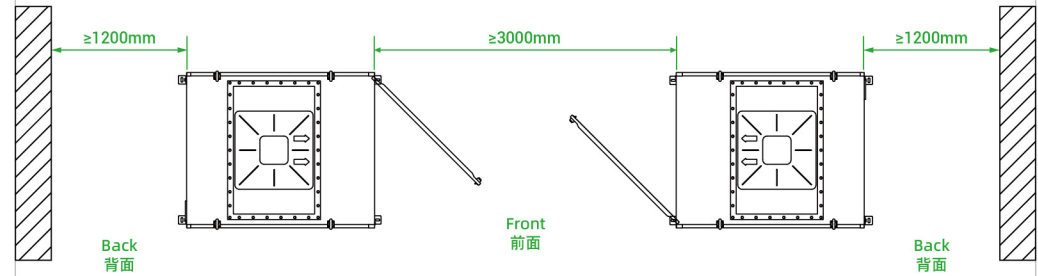


2.3 Maintenance Channel 维护通道

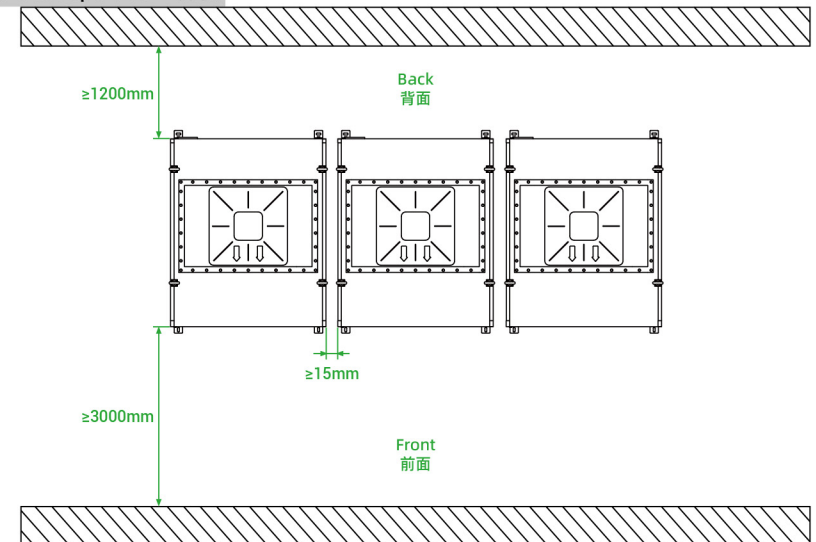
A. Back to Back 背靠背



B. Face to Face 面对面

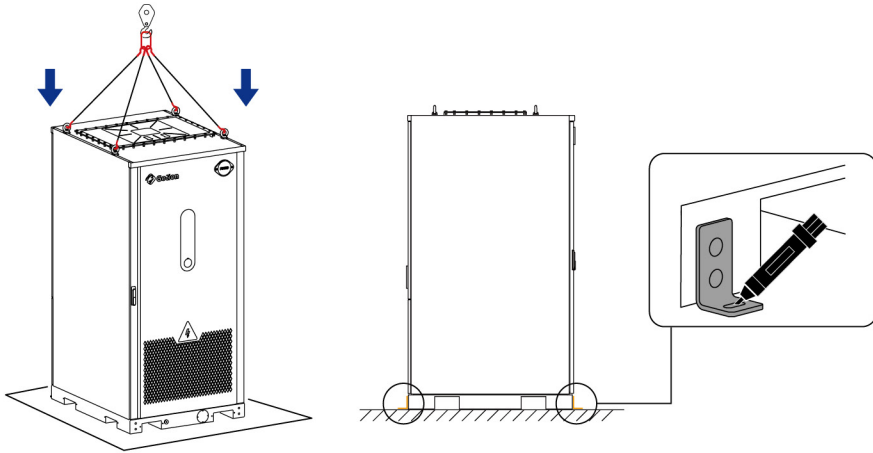


C. Parallel operation 并机

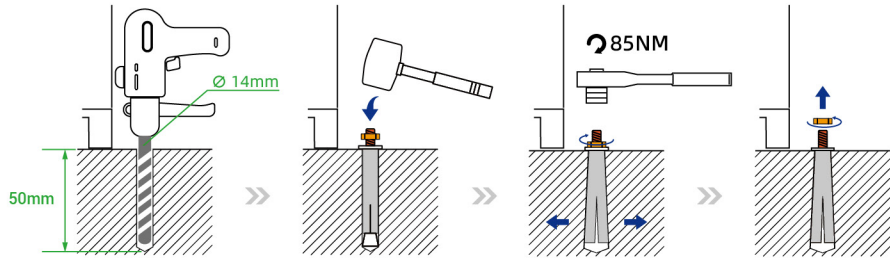


2.4 Anchor fixing 锚固

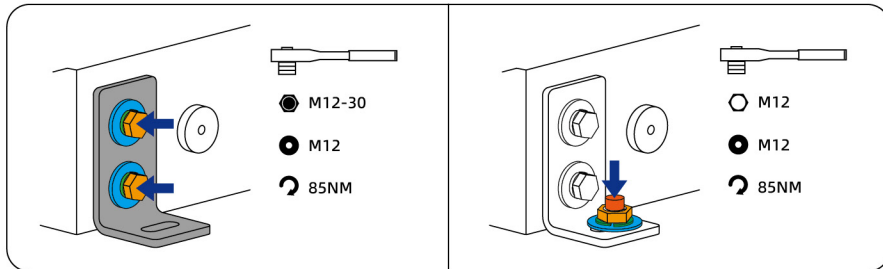
2.4.1 Equipment fixation 设备固定



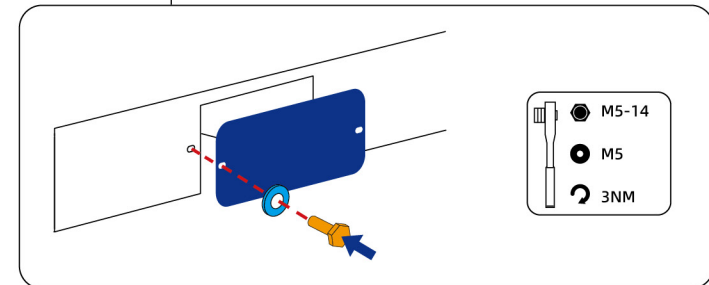
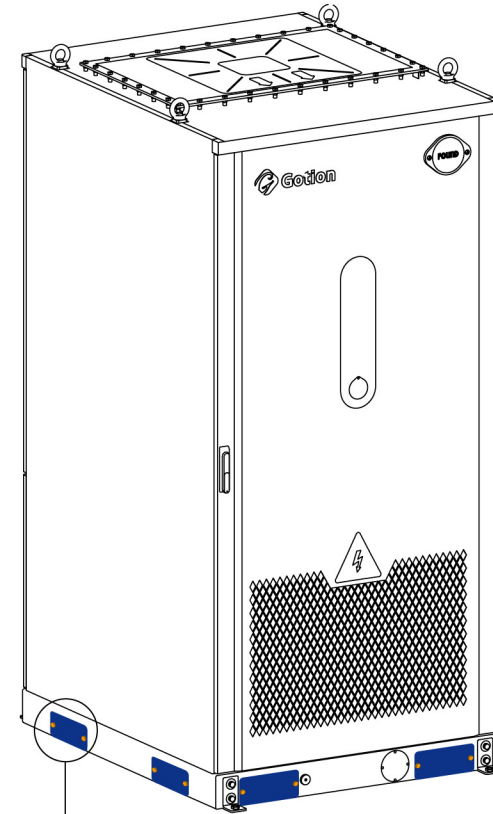
2.4.2 Install expansion screws 安装膨胀螺丝



2.4.3 Install cabinet fixings 安装柜体固定件



2.5 Install Blocking Plate 安装挡板

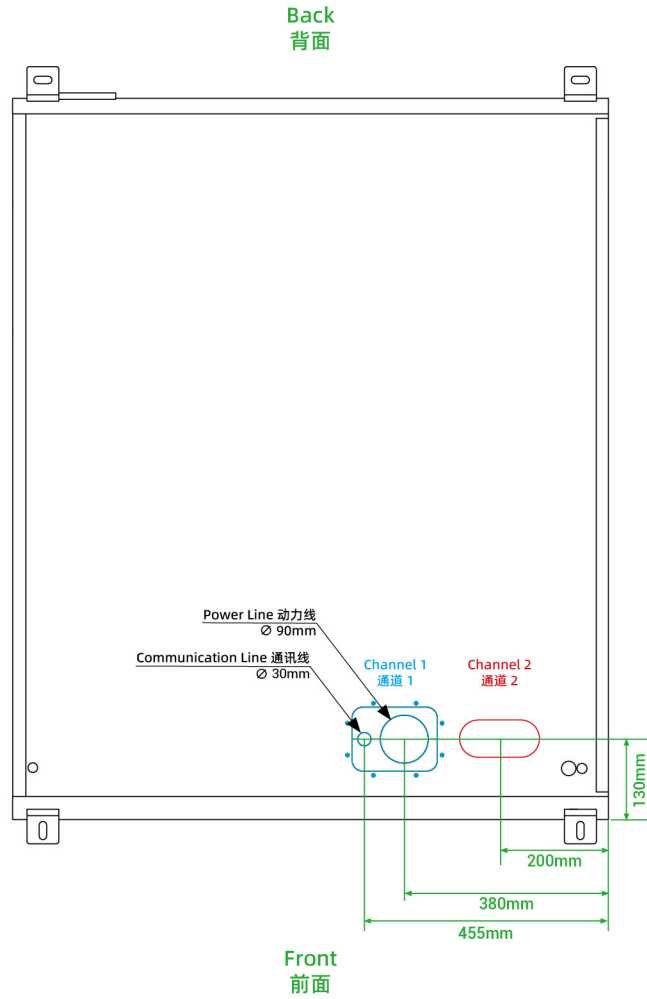


◆ Appendix 02 附录 02

Bottom outlet hole parameters 底部出线孔尺寸

Channel 1 and Channel 2 can be selected as needed, this document uses only one method
 按需选择通道 1 与通道 2, 本文档仅使用一种方式

Top view
 俯视图

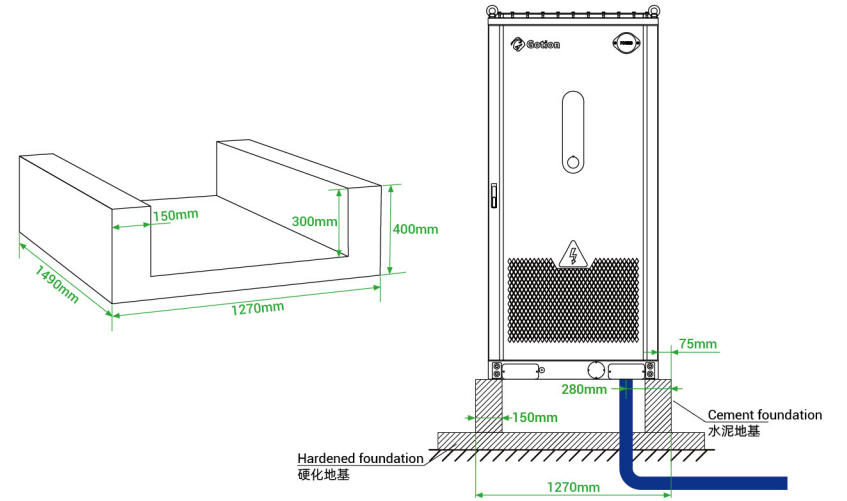


2.6 Outlet method 出线方式

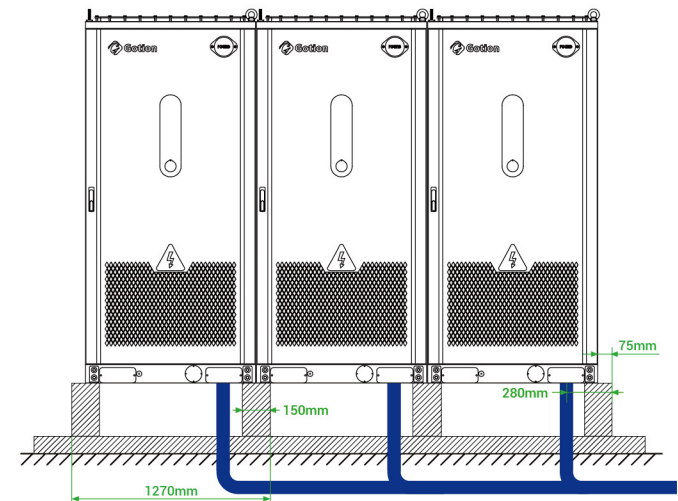
Three outlet schemes are provided
 提供三种出线方式

Scheme 1: Bottom outlet 方案一：底部出线

- The concrete foundation should be placed on flat, elevated ground.
 水泥地基放置在地势平坦, 且为高位处
- The concrete foundation must be higher than the historical high water level and have good drainage.
 水泥地基须高于历史最高水位, 且排水顺畅

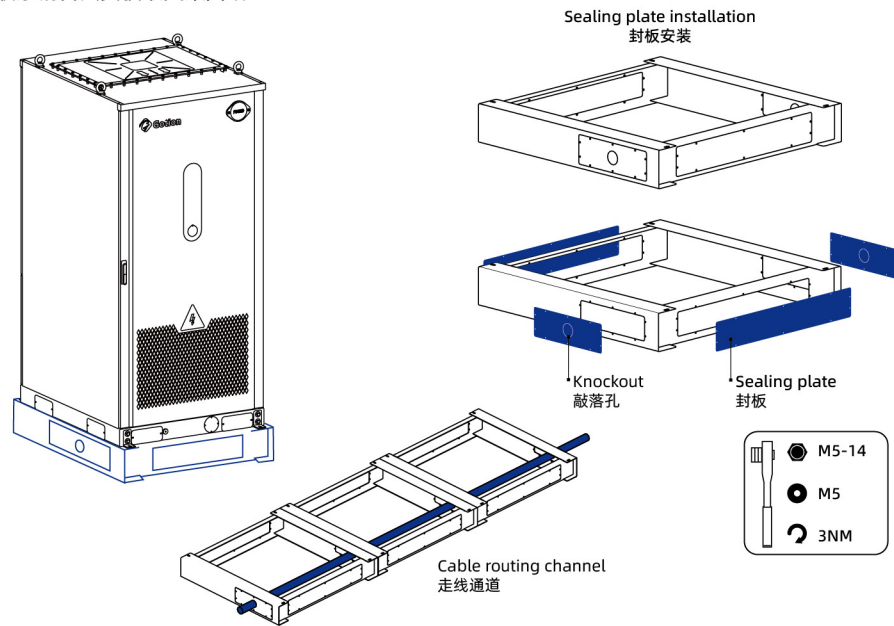


Parallel operation 并机

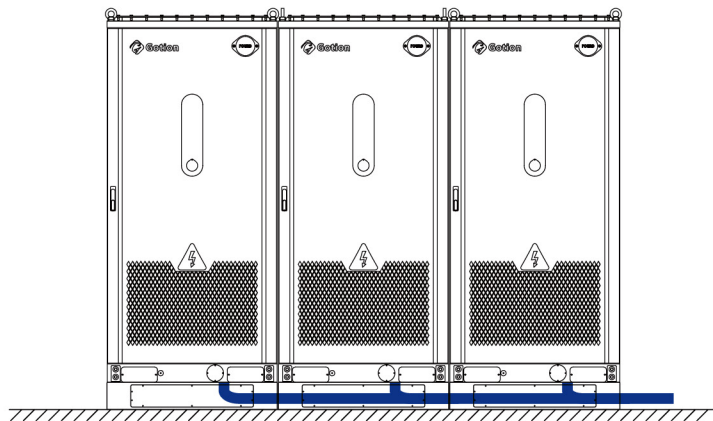


Scheme 2: Bracket side outlet 方案二：支架侧边出线

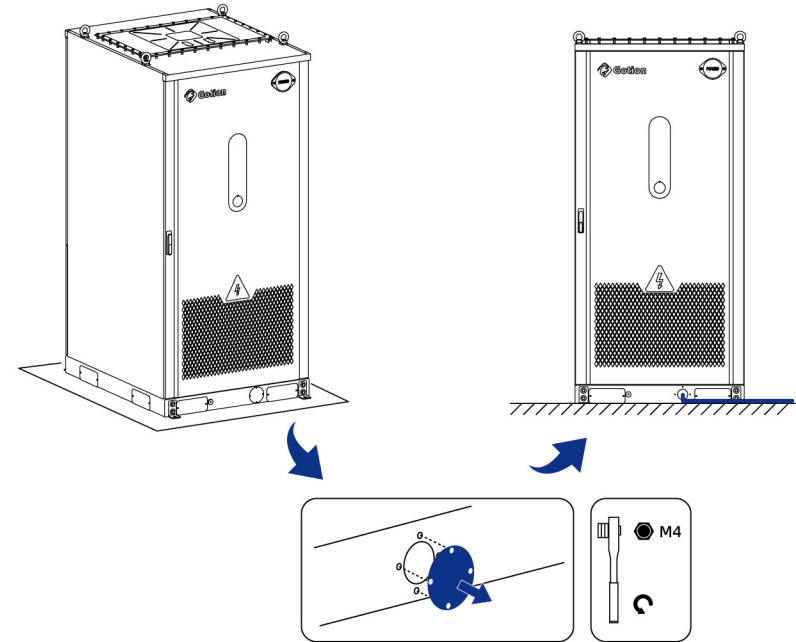
• Please contact salesperson for Bracket's drawings
请联系销售人员获取支架图纸



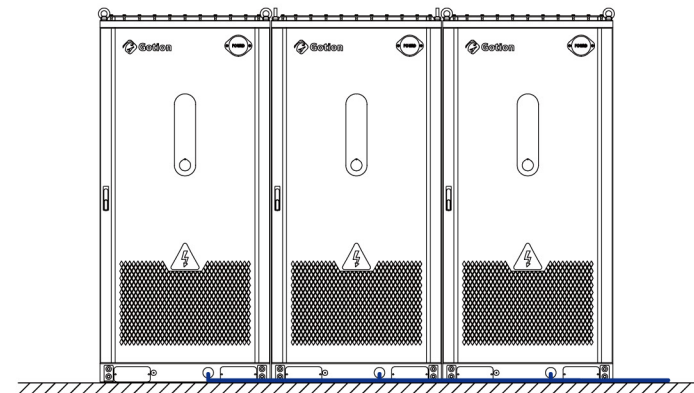
Parallel operation 并机



Scheme 3: Front-end outlet 方案三：前下方出线



Parallel operation 并机

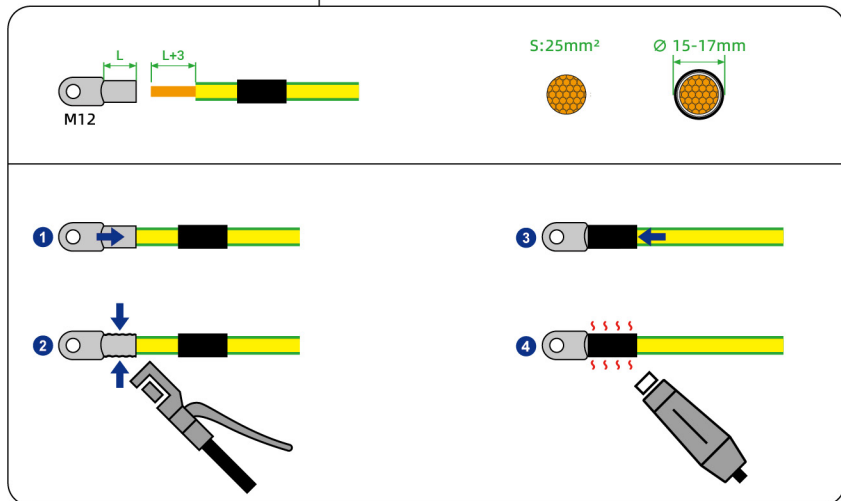
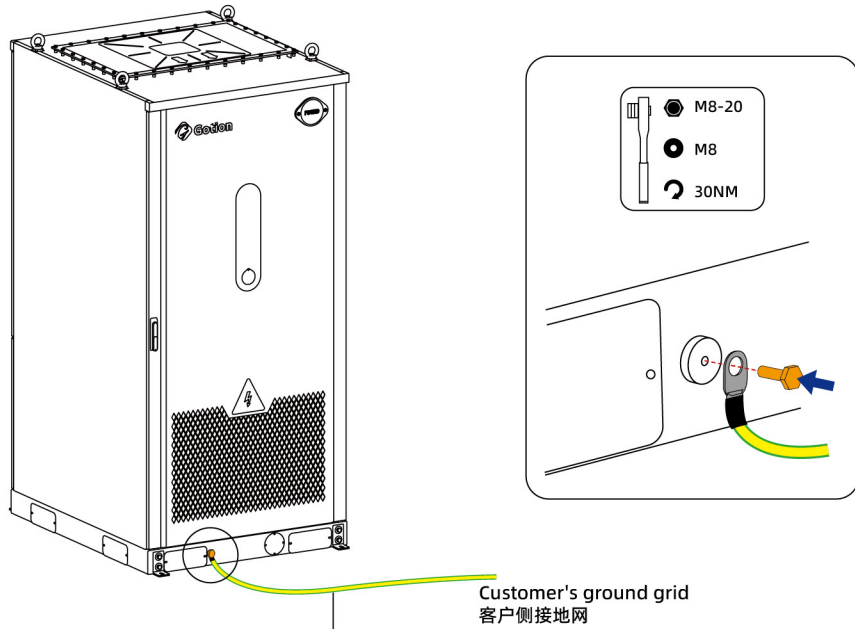


3. Wiring 接线

3.1 Ground Wire 保护地线

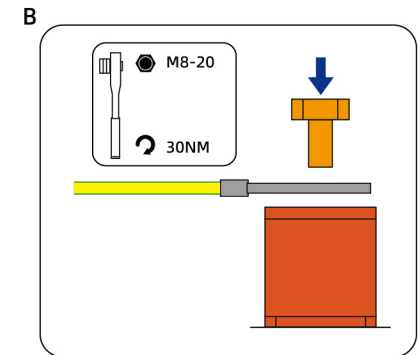
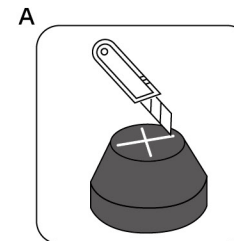
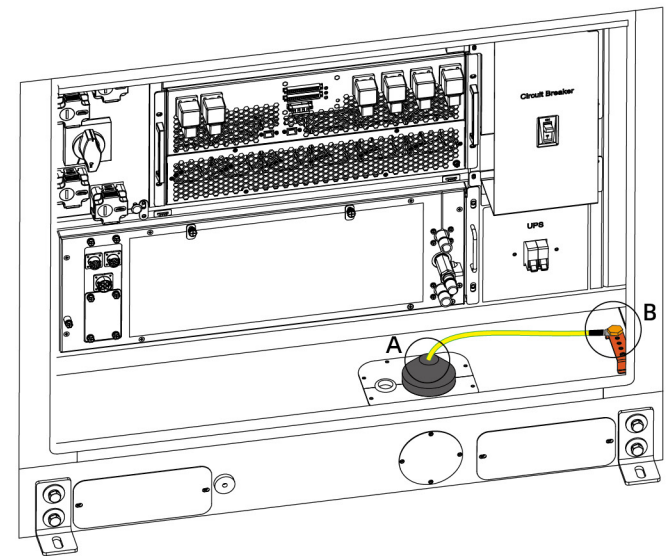
• Single-core outdoor copper/copper-clad aluminum/aluminum alloy cable
单芯户外铜芯 / 铜包铝 / 铝合金线缆

External grounding wire
外部接地线



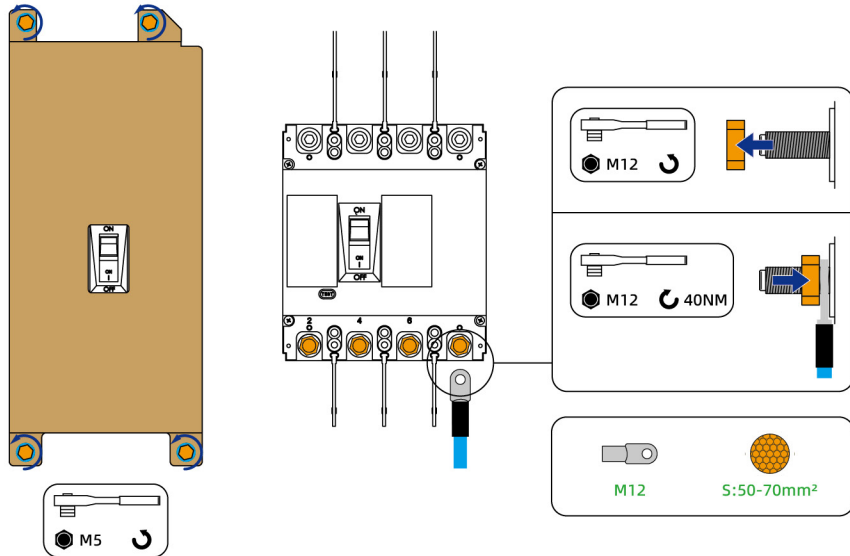
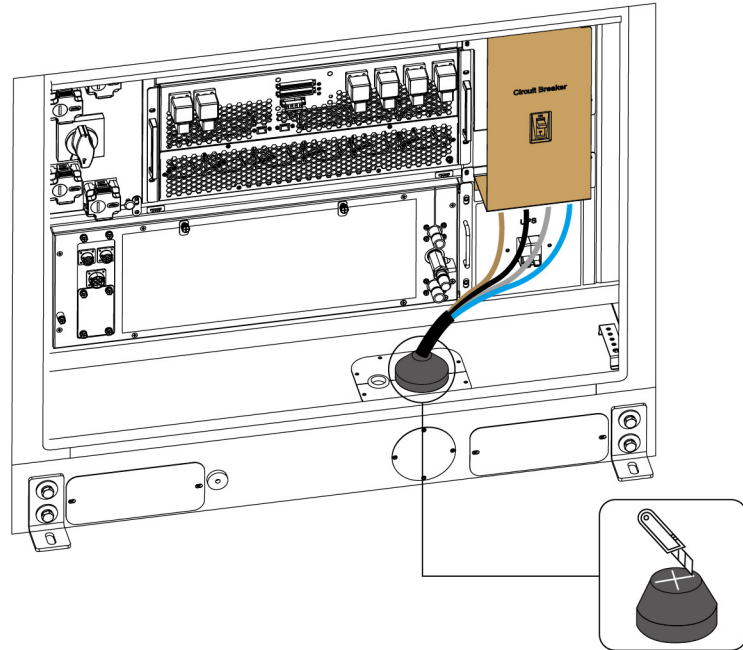
3.1 Ground Wire 保护地线

PE wire
PE 线

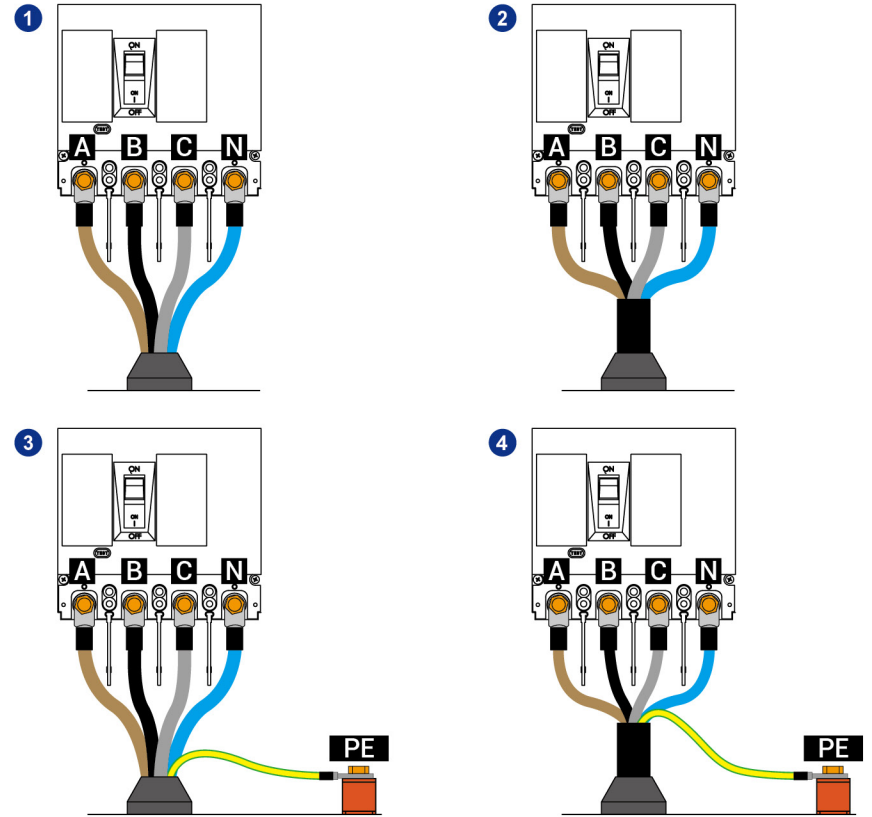


3.2 Power Line 动力线

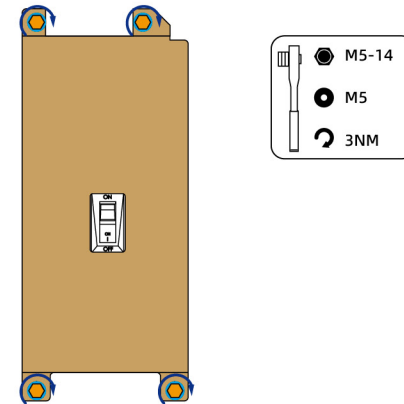
- The selection of wire diameter should comply with local cable standards
线径的选取应符合当地线缆标准



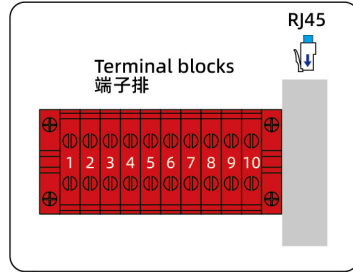
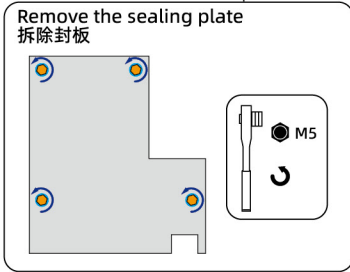
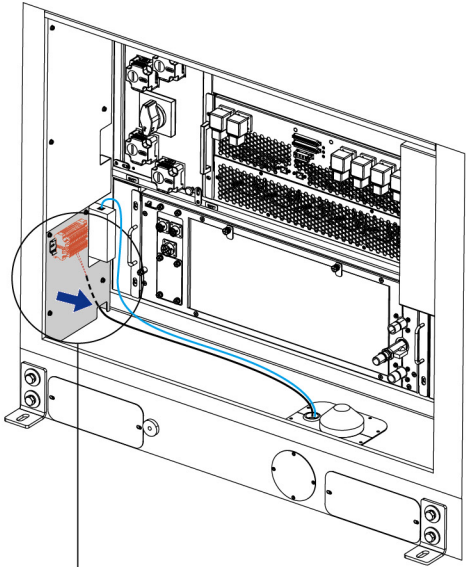
3.2 Power Line 动力线



fix the cover after completing the wiring
完成接线后锁定封板



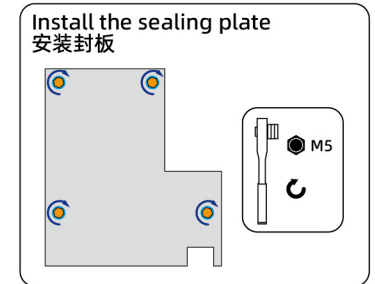
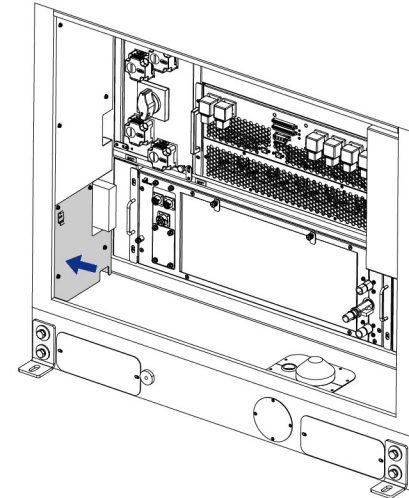
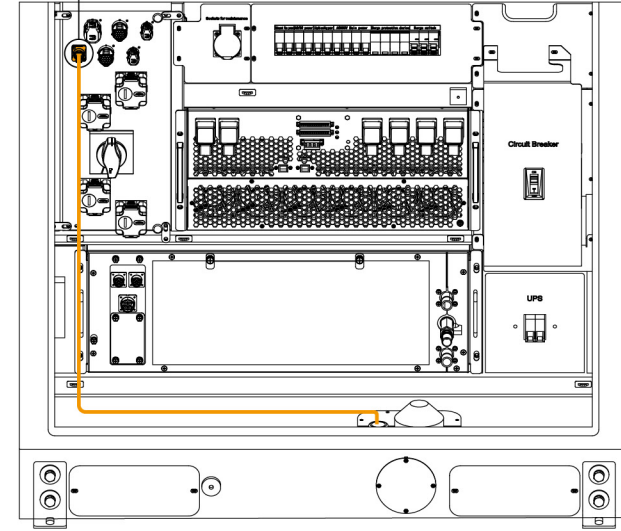
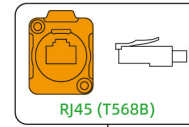
3.3 Communication Line 通讯线



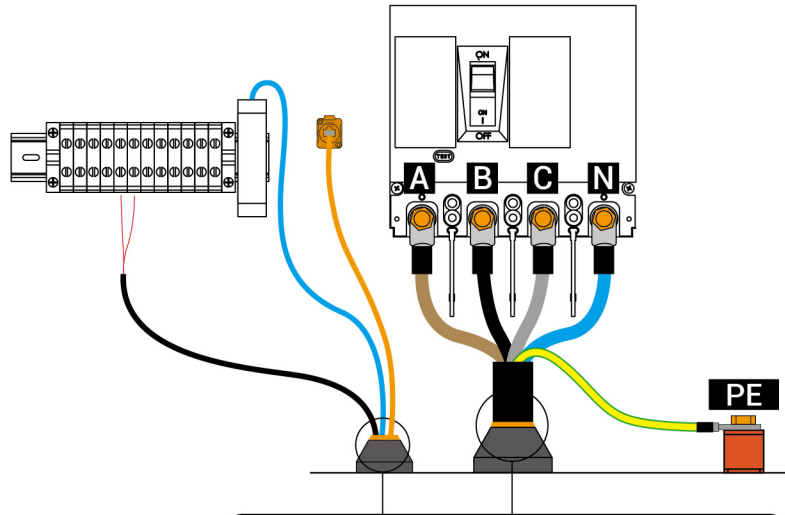
Number 号码管	Manager 线规	Wire Gauge 描述	Description 描述
1	24V+	2*0.5mm ²	24V, ≤ 20W power output (only for equipment inside the cabinet) •24V, ≤ 20W 电源输出 (仅限柜内设备使用)
2	0V		
3	GL+	2*0.5mm ²	12V, ≤ 10W isolated power output (for equipment inside the cabinet only) •12V, ≤ 10W 隔离电源输出 (仅限柜内设备使用)
4	GL-		
5	485B1	2*0.35mm ² (Shielded twisted pair 屏蔽双绞线)	Parallel operation or communication with external EMS (Modbus-RTU protocol, baud rate 9600) •并机或与外部 EMS 通讯 (Modbus-RTU 协议、波特率 9600)
6	485A1		
7	232 R2	3*0.35mm ²	Used to connect to the Ethernet module and communicate using the MQTT protocol (the 232-to-Ethernet module is not included by default and can be configured as an optional accessory) •用于连接以太网模块, 采用 MQTT 协议通信 (出厂默认不含 232 转以太网模块, 该模块可作为可选配件额外配置)
8	232 T2		
9	232 GND2		
	RJ45	T568B	MQTT

3.3 Communication Line 通讯线

Modbus-TCP



3.4 Follow-up Procedure 接线后处理



To prevent insects from entering, it is recommended to use putty to seal.
为防止蚊虫进入，推荐使用密封泥封堵

4. Check Before Power-On

Equipment exterior	<input type="checkbox"/> The device is in good condition, free of damage, dents, rust, or paint peeling. <input type="checkbox"/> The device label is clearly visible, undamaged, warped, or faded. <input type="checkbox"/> The nameplate is intact and legible. <input type="checkbox"/> The battery pack label is clear and accurate.
Equipment components	<input type="checkbox"/> The hatch should open and close normally. <input type="checkbox"/> The door lock should open and close normally. <input type="checkbox"/> The firefighting equipment should be externally undamaged. <input type="checkbox"/> The aerosol housing should be securely fixed and not loose. <input type="checkbox"/> The aerosol head detonator should be securely installed. <input type="checkbox"/> The detector should be securely installed (the hand-cranked detector should not shake), and the wire connections should be secure. <input type="checkbox"/> The PCS, liquid cooler and piping, firefighting equipment, control box, battery pack, and other components should be correctly installed.
Maintenance channel	<input type="checkbox"/> When using a cabinet structure with multiple rows, the cabinet layout maintenance channel width should meet the requirements of this manual.
Switch	<input type="checkbox"/> The switch is in the off position
Cable	Cable exterior <input type="checkbox"/> The cable is clearly colored and marked, the insulation is intact. <input type="checkbox"/> The cable duct is functioning properly. <input type="checkbox"/> The cable retaining ring is intact and in working order.
	Cable connection <input type="checkbox"/> Cable connections comply with the requirements of this manual. <input type="checkbox"/> Terminal connections are secure and meet specifications. <input type="checkbox"/> Labels are clearly labeled at both ends, with labels facing the same direction.
	Cable routing <input type="checkbox"/> Cables are neatly arranged, with no crossover. <input type="checkbox"/> Cable routing adheres to the principle of separating strong and weak currents. <input type="checkbox"/> Corners are properly sized with adequate margins and no cables are strained.
	Cable Material <input type="checkbox"/> The cable is flame retardant

4. 上电前检查

设备外观	<input type="checkbox"/> 设备外观完好，无损坏、无磕碰，无锈蚀、无掉漆 <input type="checkbox"/> 设备标签清晰可见，无撕损，无翘边，无褪色 <input type="checkbox"/> 铭牌无脱落，字迹清晰 <input type="checkbox"/> 电池包标号清晰准确
设备部件	<input type="checkbox"/> 开合舱门，无异常 <input type="checkbox"/> 开合门锁，正常工作 <input type="checkbox"/> 消防设备外观无损坏 <input type="checkbox"/> 气溶胶壳体固定应可靠、无松动 <input type="checkbox"/> 气溶胶点爆头安装可靠 <input type="checkbox"/> 探测器安装可靠牢固（手摇探测器不晃动），导线连接牢固可靠 <input type="checkbox"/> PCS、液冷机及管路、消防设备、控制盒、电池包等部件安装位置正确
维护通道	<input type="checkbox"/> 当采用柜式结构多排布置时，柜式布置维护通道宽度应满足本手册规定
开关	<input type="checkbox"/> 开关处于 off 档
线缆	线缆外观 <input type="checkbox"/> 电缆颜色清晰，标记清晰，绝缘层未损坏 <input type="checkbox"/> 线槽功能正常 <input type="checkbox"/> 护线圈完整，使用正常
	线缆连接 <input type="checkbox"/> 线缆连接符合本手册要求 <input type="checkbox"/> 端子连接牢固，端子质量符合规范 <input type="checkbox"/> 各线缆标签清晰明确，两端均有标签，标签朝向一致
	线缆布线 <input type="checkbox"/> 线缆排布美观、整齐，线缆无交叉 <input type="checkbox"/> 走线满足强弱电分离原则 <input type="checkbox"/> 转角处按要求保持余量，线缆无拉紧
	线缆材质 <input type="checkbox"/> 电缆采用阻燃电缆

5. Power-On 设备上电

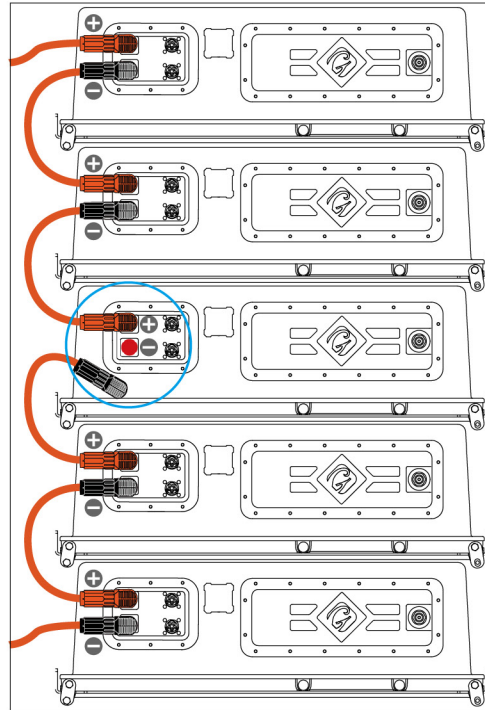
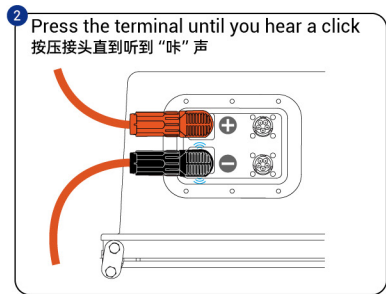
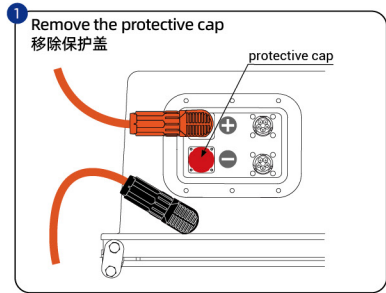


1. Wear insulated gloves and use insulated tools to prevent electric shock or short circuits.
2. During the power-on procedure, monitor the system for faults. If you detect any faults, power off the ESS, rectify the faults, and then continue with the procedure.
3. If batteries are fully discharged or overdischarged during system installation and commissioning, charge the batteries promptly to prevent damage due to overdischarge.
4. Storing batteries with low SOC may cause damage due to overdischarge. Charge the batteries promptly to prevent damage.
5. If the ESS has not been used for six months or longer after being installed, it must be checked and tested by professionals before operation.

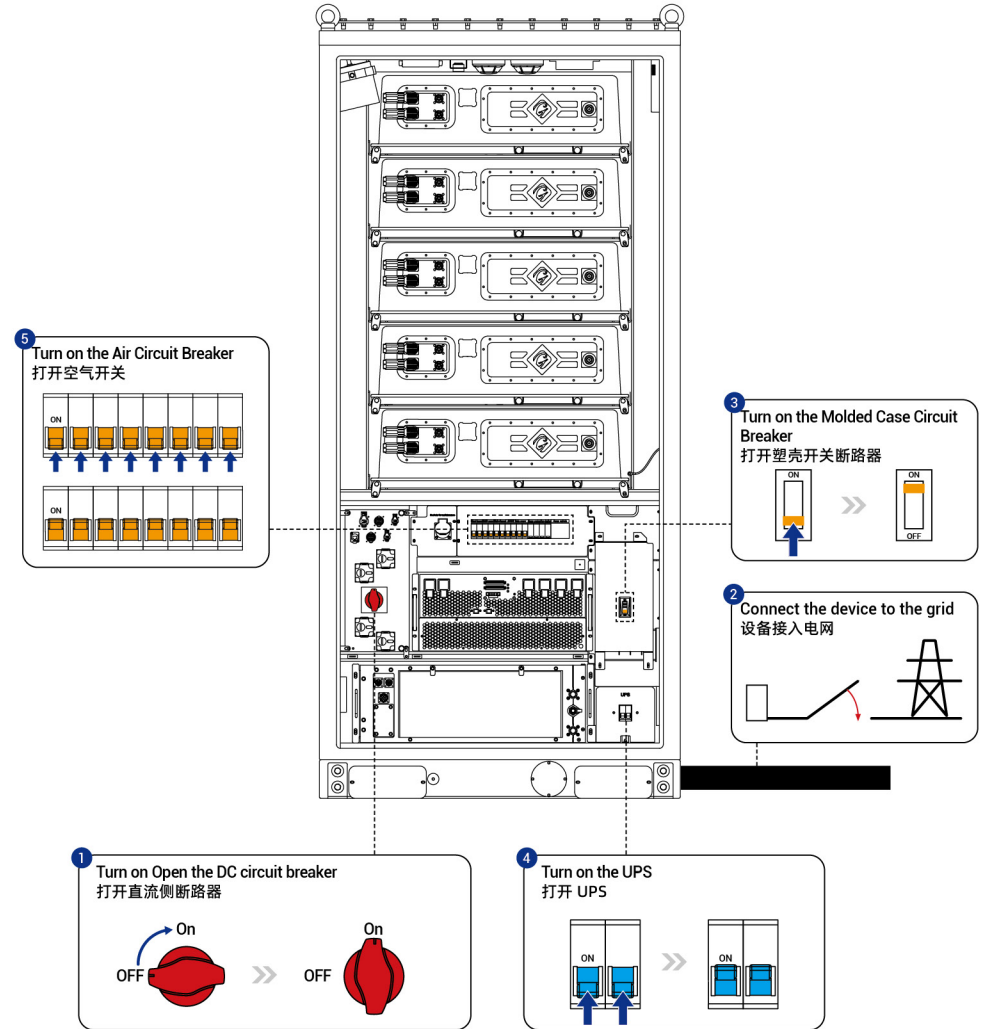
1. 请佩戴绝缘手套，使用绝缘工具，避免发生电击伤害或短路故障。
2. 上电过程中同时观察，发现异常现象立即对储能系统下电，并查明原因，解决后方可继续上电。
3. 系统安装调测过程中导致电池放空或过放，请对电池及时补电，否则可能导致电池因过放而损坏。
4. 电池低电量状态存储可能导致电池过放损坏，请及时进行补电。
5. 储能系统装配后超半年未运行使用，需经过专业人员检查和测试才能投入运行使用

5.1 Connecting battery pack cables 连接电池包线缆

The battery pack power supply series line is disconnected when shipped and needs to be connected by the customer
 电池包串联线出厂时断开，需客户自行连接



5.2 AC side power-on process 交流侧上电流程



南通国轩新能源科技有限公司

Nantong Gotion New Energy Technology Co., Ltd