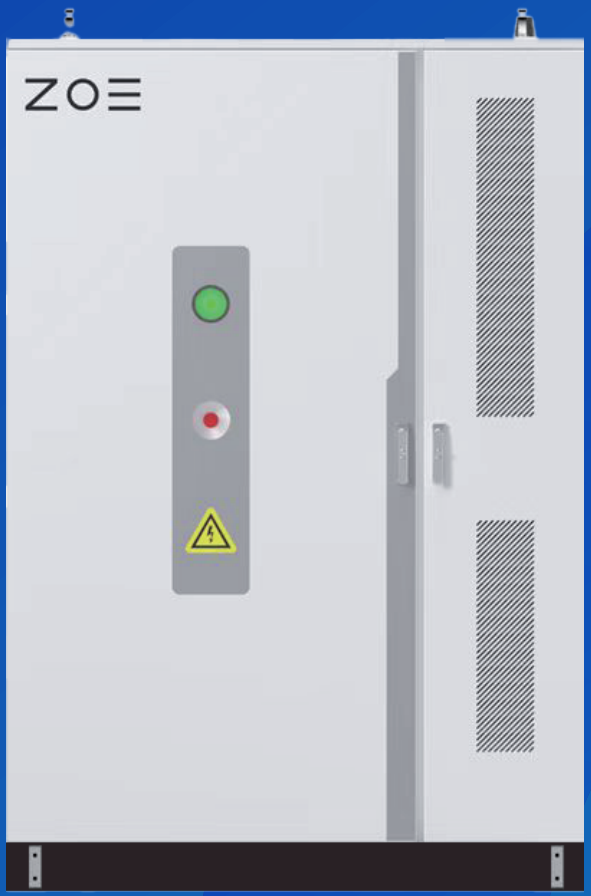
ZOE
ENERGY STORAGE

Quick Installation Guide

Z BOX-I ALL-IN-ONE ESS Cabinet



I 156-1H

Product Model: 150kW / 156kWh | 1C

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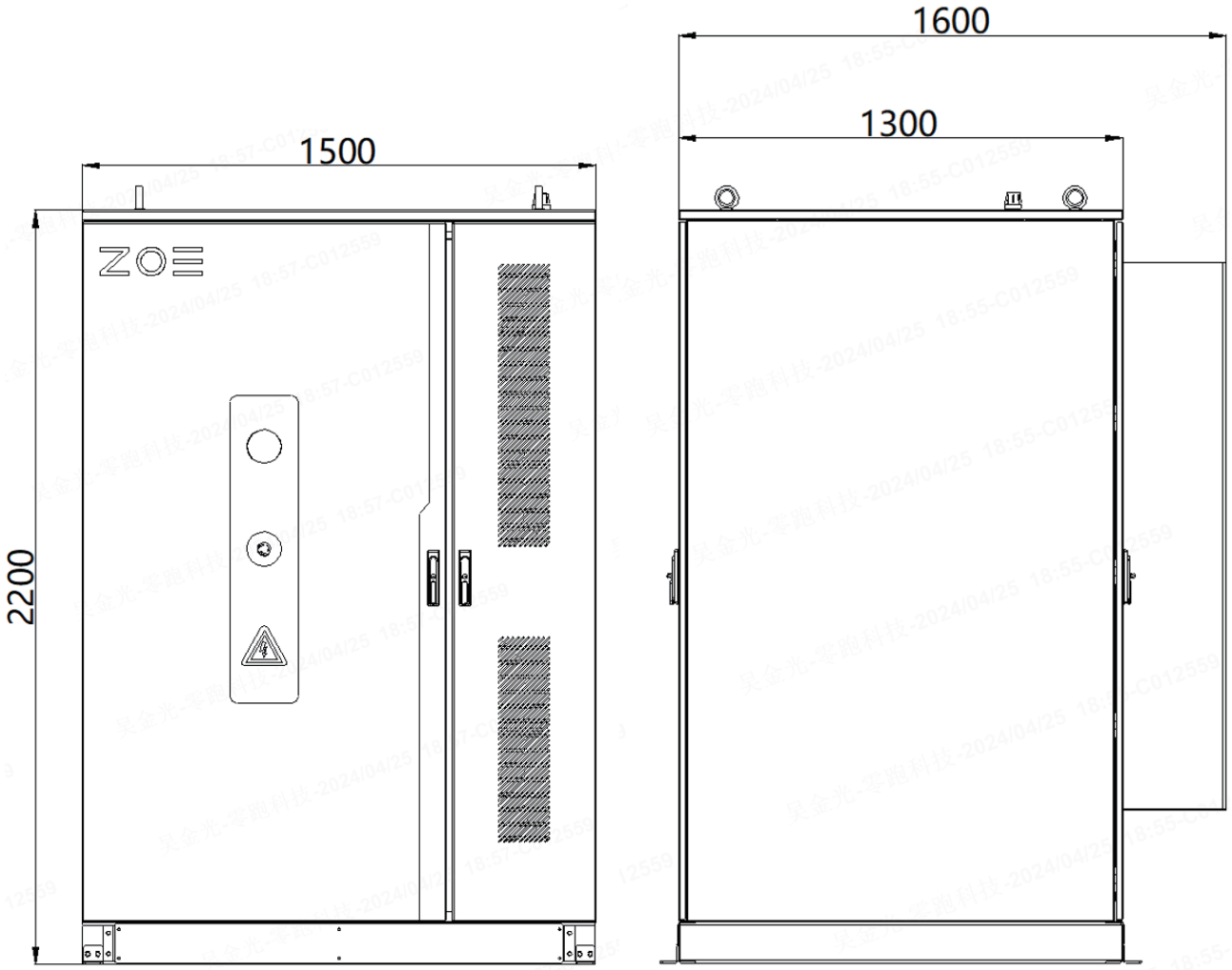
1. Product features



Weight	2800±50kg
Size	1500mm(W)*1300mm(D)*2200mm(H)

2. Tools

SN	Name	Purpose	Picture
1	Cable stripping knife	For stripping the electrical insulation of cable	
2	Wire stripper	For stripping the electrical insulation of wire	
3	Power drill (with 10-11mm drill bit)	For drilling mounting holes on the ground	
4	PH2 cross-head screwdriver	For disassembling the bottom cover of the cabinet	
5	Hex socket set (with ratchet handle)	For connecting the power cable of the product	
6	Level staff	For measuring the levelness of the equipment	
7	Insulating mat	For placing parts during installation of the equipment	
8	2B pencil	For marking hole locations	
9	Multimeter	For check before and upon electrification	
10	Ladder	For installing a hanger at height to fix the energy storage equipment	
11	Tape measure	For measuring the height of the mounting plate and the base from the ground upon wall mounting	
12	Wire crimper	For crimping the input terminal	
13	Copper lug crimper	For crimping the power inlet wire	
14	Ethernet cable crimper	For crimping communication cable	

Remarks: It is recommended that for on-site installation, a full set of No. 4-5 screwdriver sockets be provided.

3. Safety Cautions

(1) It is required to observe safety management regulations of the construction site upon entry

(2) To enter the construction site, one shall wear a sturdy safety helmet properly (with the strap well fastened), and avoid loose clothes and slippers. Working under influence of alcohol or smoking on construction site are not permitted.

(3) When operating at height: safety helmet shall be well fastened, safety belt shall be used properly, working tools shall be firmly attached, and wear non-slip shoes.

(4) It is required to wear mask in case of heavy dust or painting operation.

(5) entering of hoisting areas or other dangerous areas is prohibited. Do not get under any vertical operations.

(6) Keep a safe distance from mechanical equipments and electrical lines to avoid mechanical and electrical injury.

(7) Workers using mobile electric tools are required to master use of the tools and observe precautions, wear insulting shoes and gloves, and have metal housing well grounded or connected to the neutral for protection.

(8) For temporary access to electricity on site, the electrical box shall be kept in good conditions, and damaged electrical components must be timely replaced.

(9) Rubber cable shall be used for temporary access to power on site. It is prohibited to use plastic twisted pair and to insert the wire directly into a socket.

(10) Live-line work shall be avoided wherever possible.

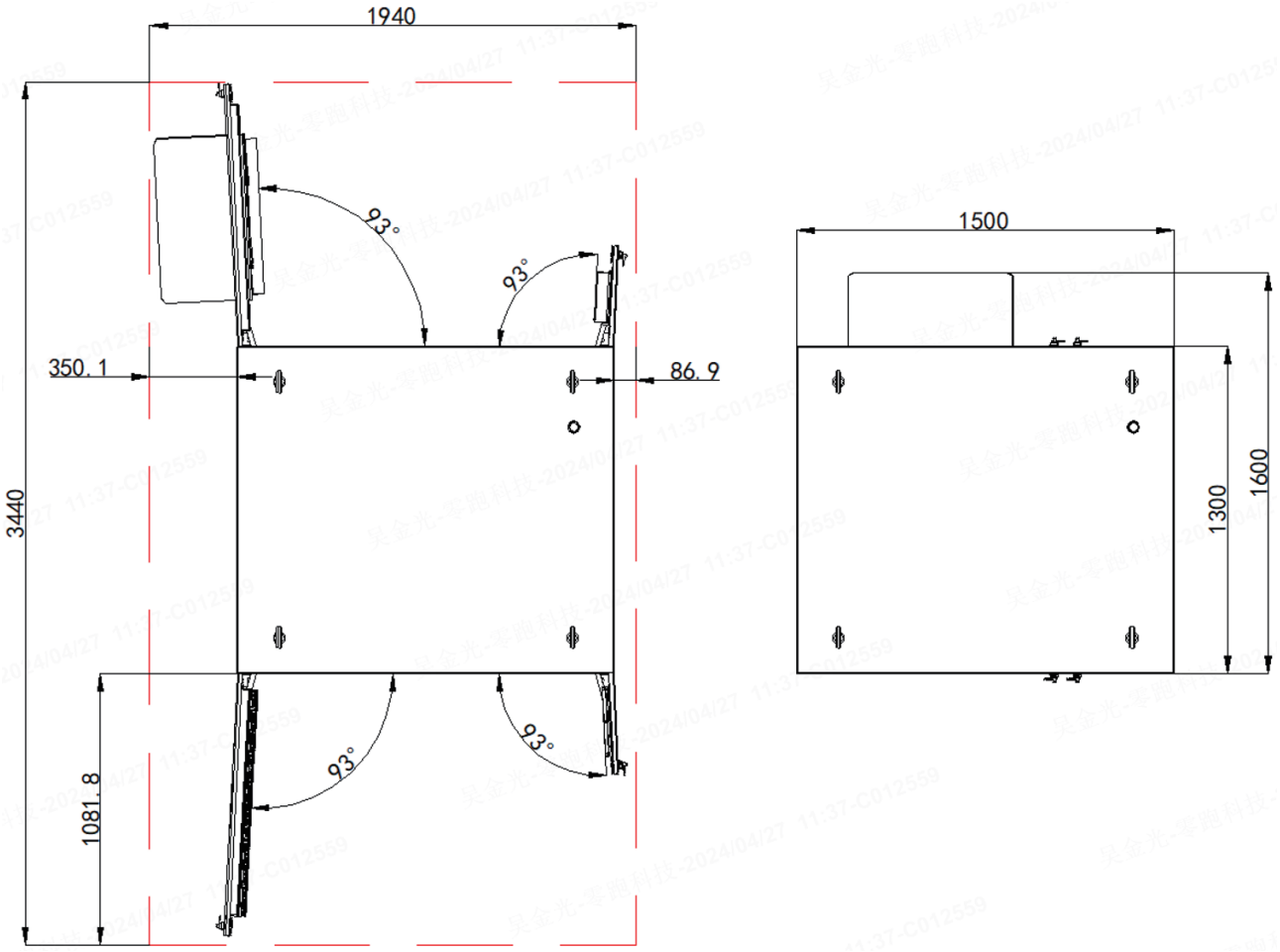
(11) For operation in a foundation pit, on a roof, at any edge or in a hole, the operator shall be concentrated and be cautious of possible falling objects.

(12) It is required to carefully observe environmental conditions and get aware of any present iron nails, steel bars on the ground, so as to avoid puncture, collision, catching, falling or other injuries.

(13) Protective facilities, safety signs and warning plates on the construction site may not be removed without permission.

(14) Construction equipment on site must be maintained and serviced to remain in sound conditions. Operation of faulty equipment or excessive load is prohibited.

4. Location Selection

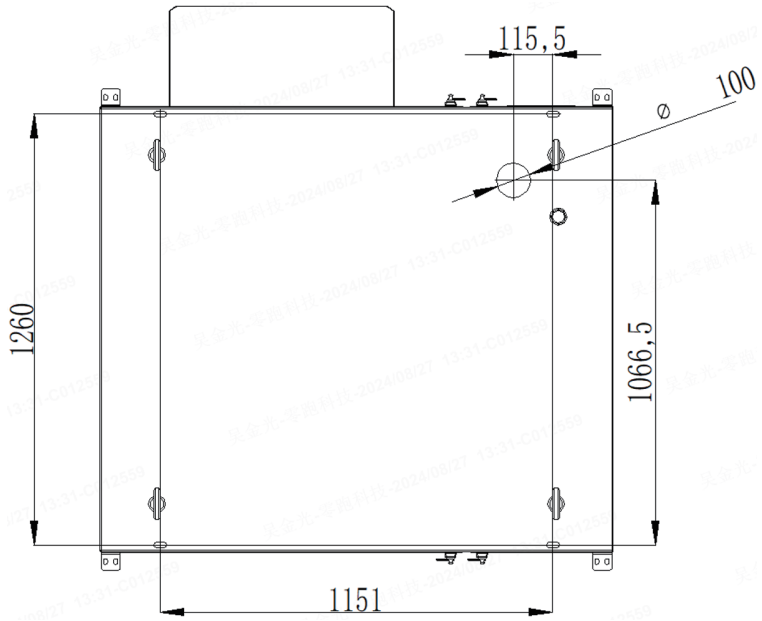


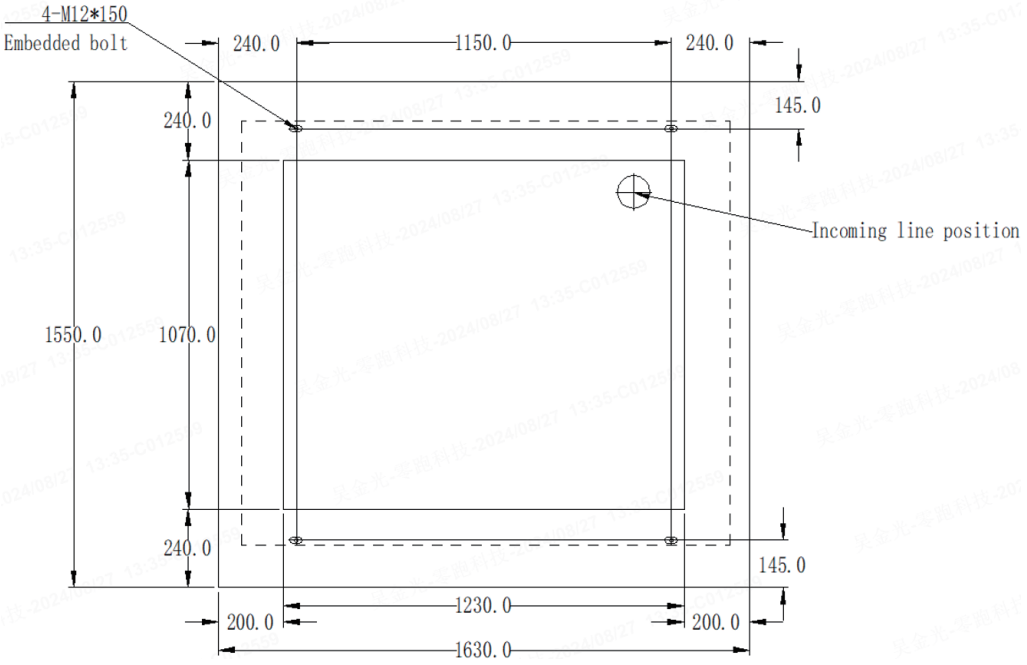
As shown in the figure

· At least 1200mm of clearance shall be reserved at the back of the cabinet for the maintenance access of the fan and air conditioning.

· At least 1200mm clearance shall be reserved in front of the cabinet for door opening.

5. Foundation Requirement





As shown in the figure

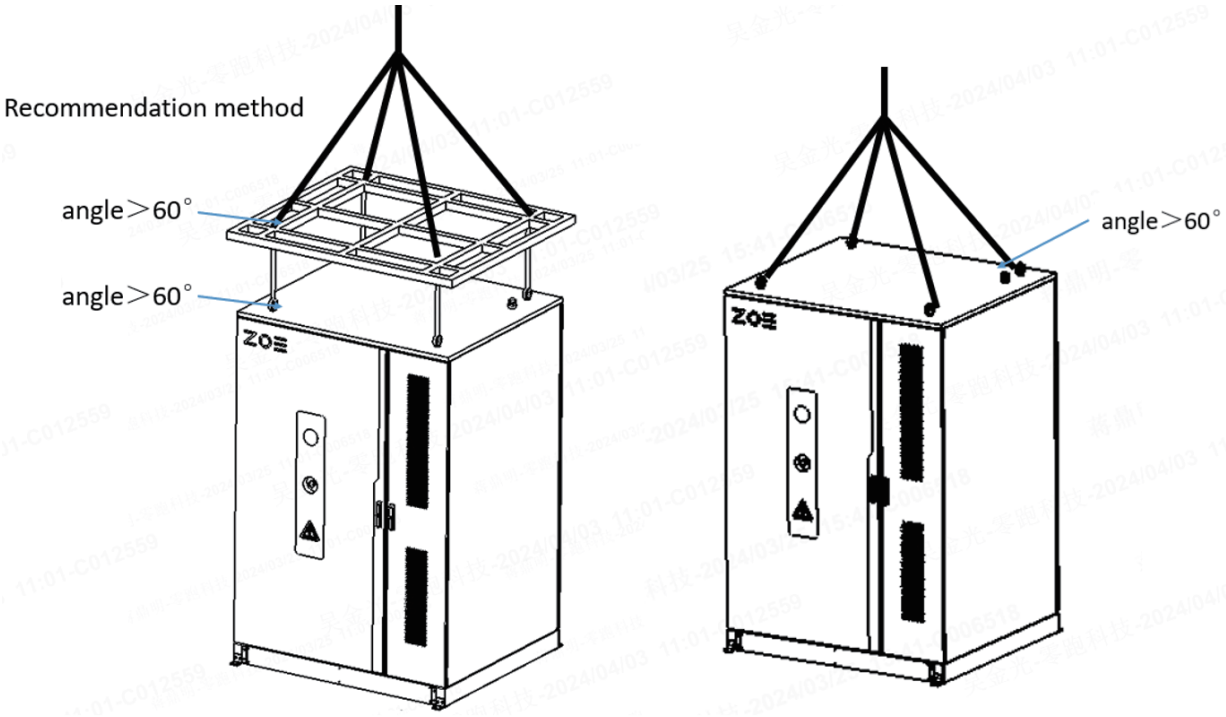
· The floor shall be flat with 1630*1550 leveled area; When installing a cabinet, insert four M12*150 anchor bolts that project 30~40mm above the ground.

· In order to achieve the carrying capacity of 2.8T, it is necessary to reinforce the beam with a circumference of 200 mm

· The 100mm diameter cable outlet holes are located in the positions of the main cable and Ethernet cable communication holes

6. Transportation Requirement

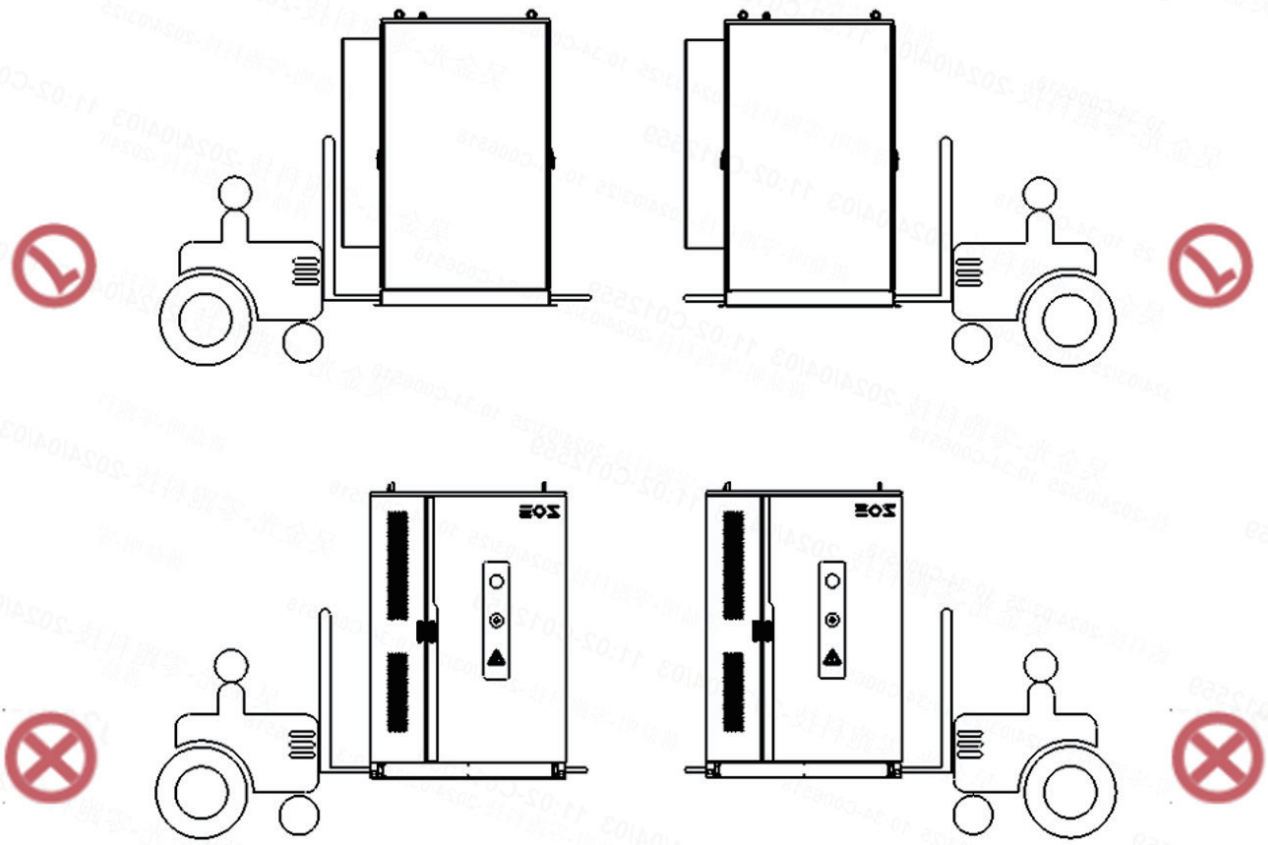
Lifting and lowering the cabinet

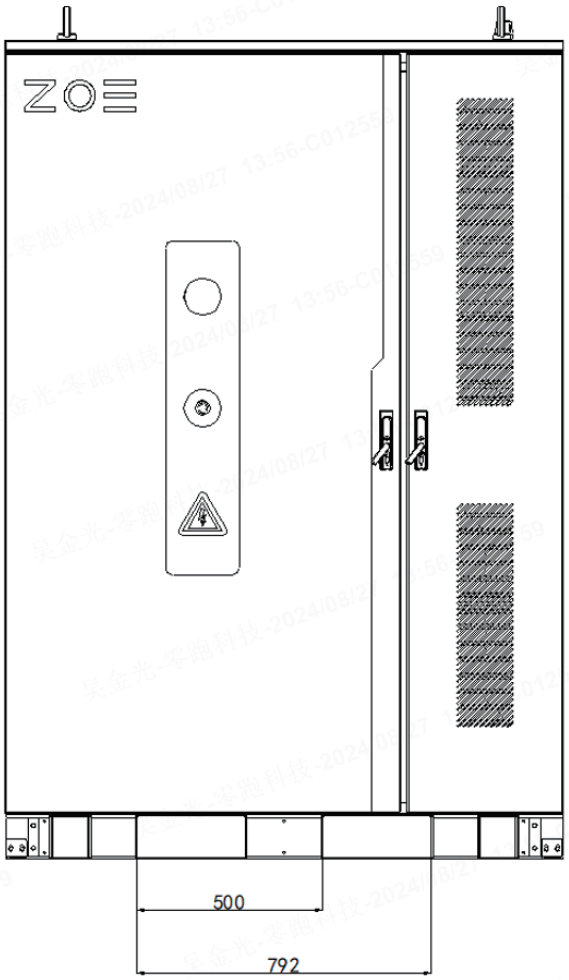


As shown in the figure

· The lifting rope should pass through four rings; The Angle formed by the lifting rope needs to be greater than 60°

· Lifting rope carrying capacity of 2.8T; The lifting operation should be carried out stably





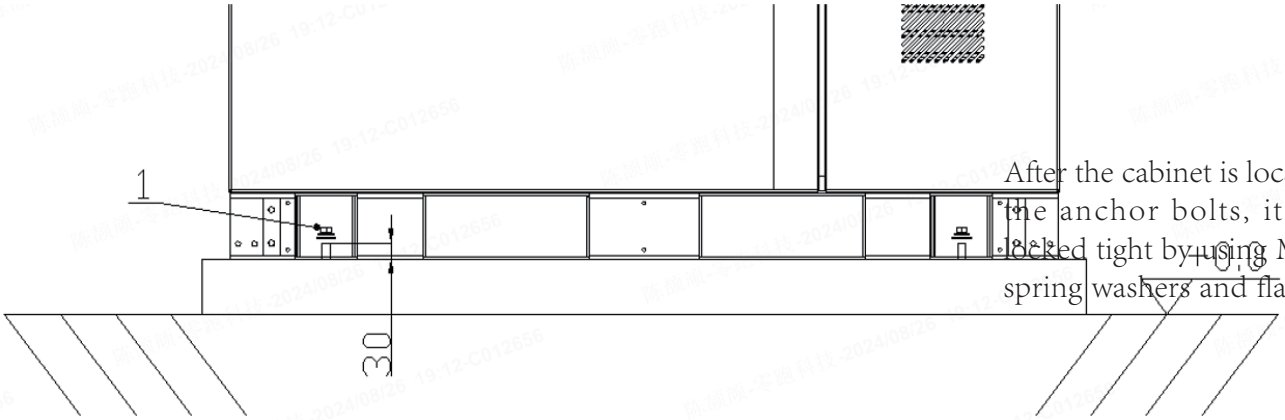
As shown in the figure

· The forklift shall meet the gear length > 1600mm

· 500mm < gear width < 792mm, fork weight 2.8T

· The four forklift hole covers shall be open; the forklift shall extend into the holes, move slowly and operate steadily

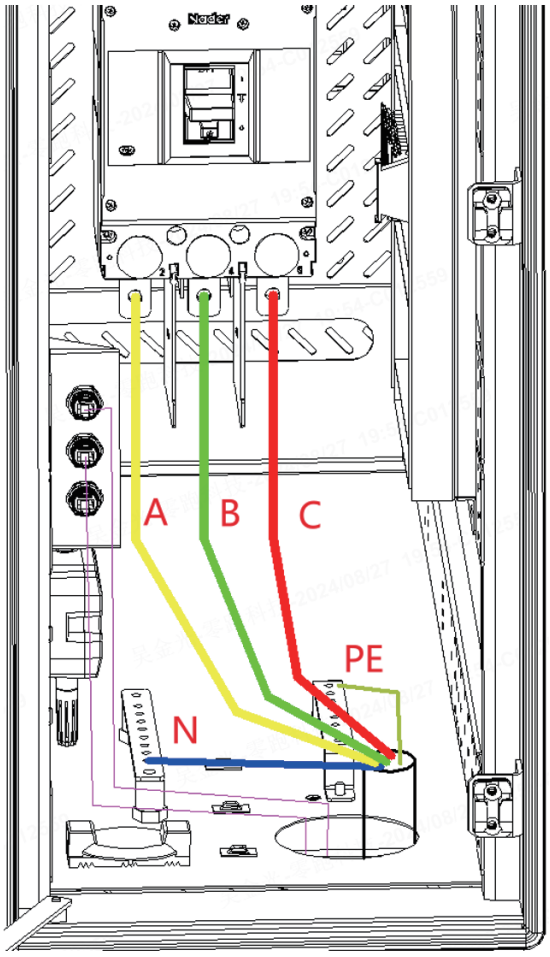
7. Cabinet Reinforcement



As shown in the figure

· After the cabinet is located onto the anchor bolts, it shall be locked tight by using M12 nuts, spring washers and flat washers

8. Electrical Connection Requirement



As shown in the figure

· The power cable, preferably YJV-3×95+2×50, shall enter the cabinet from the bottom

· 95mm2 cable is used for A/B/C; 50mm2 cable is used for N/PE; the crimped terminal width shall be ≤22mm, Recommended bolt specifications M10*20

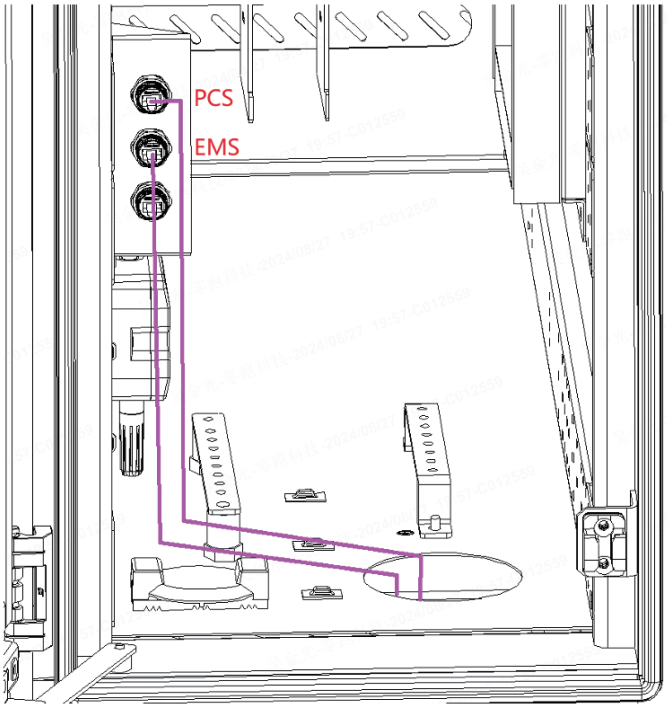
· It is connected to the input terminal A/B/C of the PCS;

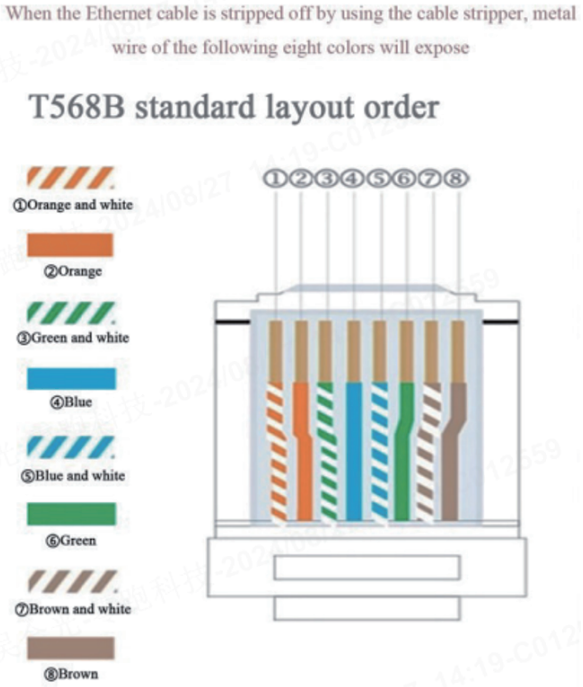
the wiring screw tightening torque is M10 18-21N.M

· N/PE connects to the copper strip; the wiring screw tightening torque is M6 9~11N·m;

The cabinet base is grounded using M10 bolts and the locking torque is 37±3N·m

9. Communication Connection Requirement





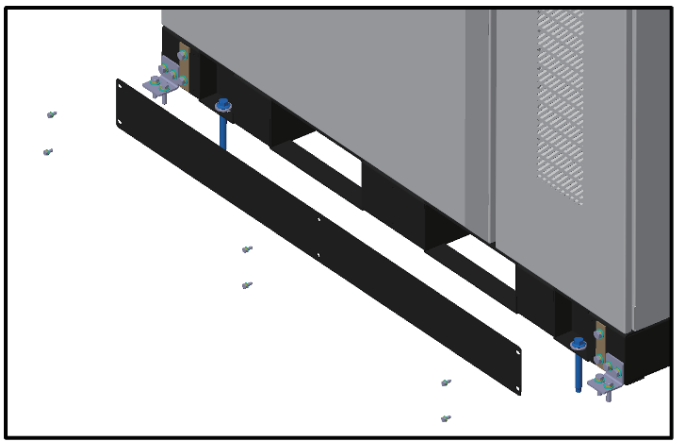
As shown in the figure

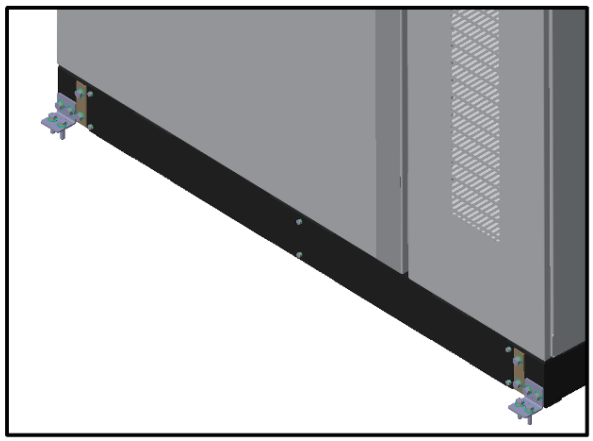
· For external communication of EMS/PCS, it is recommended to use Ultra Cat6 shielding cable; the cable enters the cabinet from the bottom

· Crimp the RJ45 terminal when the network cable passes through the cable hole. The connector diagram is shown in the figure

10. Other Requirements

· Put back the forklift cover





As shown in the figure

· After the base is fixed, six M6 bolts are used to fix the base baffle, and the locking torque is 8±2N·m;

· Fill the cable inlet fireproof sealing materials as required

· Close the cabinet door (Note: Because the air conditioner is heavy, it is easy to cause deformation of the cabinet door if open for a long time)

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