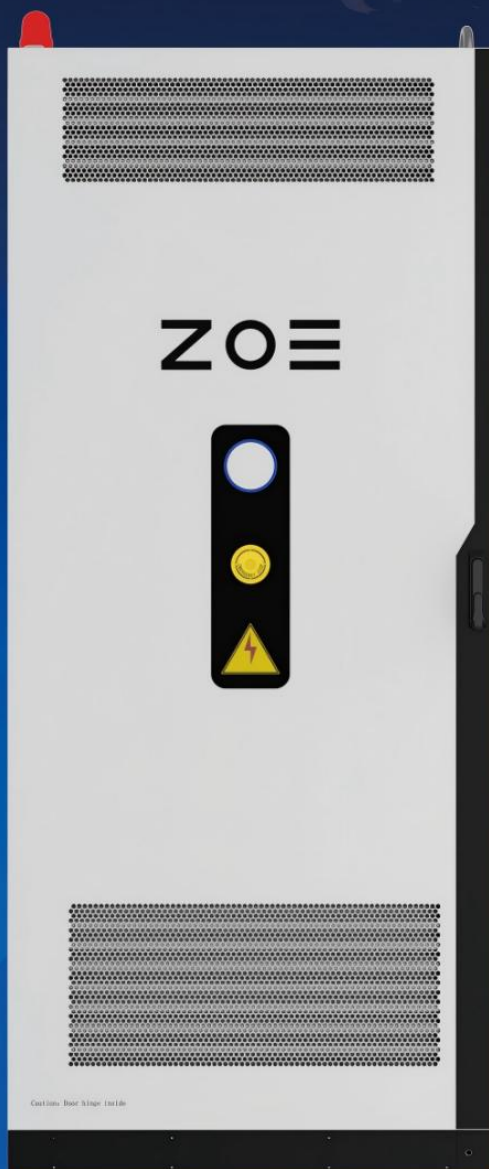


ZOΞ

Z BOX-C PLUS

Quick Installation Guide



C&I All-in-one ESS

Z BOX-C PLUS 261-2H

125kW/261kWh | 0.5C

Product models:

C261L-A-EU

C261L-B-EU

For more information, please refer to the user manual !

1. Product feature

weight	2550±50kg
size	990mm (W) *1320mm (D) *2300mm(H)

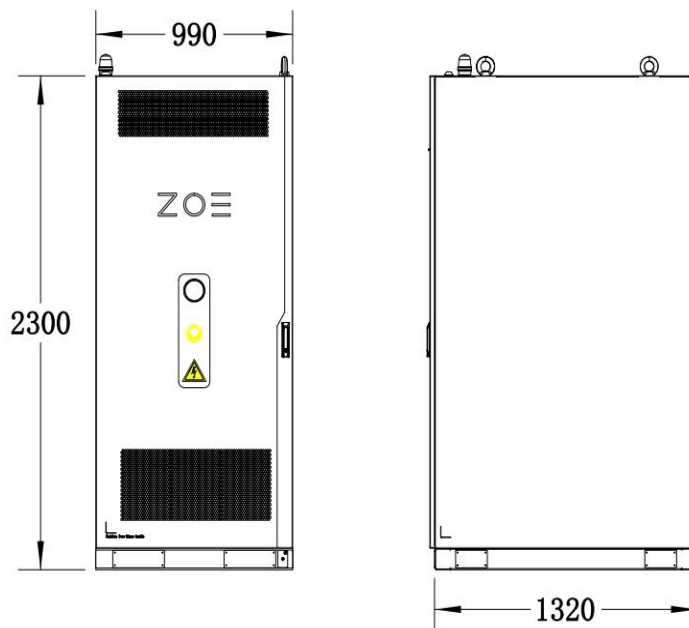


Figure 1.1 Cabinet dimensions

2. Tools List

No.	Name	Uses	Image Example
1	Electrician's knife	Peel off the thicker insulation layer on the outside of the cable	
2	Wire stripper	Peel off the thinner insulation layer on the inside of the cable	
3	Electric drill	During installation, drill holes on the ground	

4	PH2 screwdriver set	Remove/install the bottom cover plate of the cabinet	
5	Hexagonal socket set	Tighten and remove nuts	
6	spirit level	Measure the levelness of the equipment	
7	Insulated shoe	Personnel protection during installation process	
8	Insulating gloves	Personnel protection during installation process	
9	Dust mask	Personnel protection during installation process	
10	safety glasses	Personnel protection during installation process	
11	Marker	Mark when needed.	

12	Multi-meter	Used for testing and troubleshooting	
13	Lift	Install lifting rings at heights	
14	Tape measure	Measure distance or length when installing cabinets	
15	Wire crimper (wire)	Crimping wire terminals	
16	Wire crimper (power cable)	Crimping cable terminals	
17	Wire crimper (network cable)	Making Ethernet cables	
18	Crowbar	Installing or removing the lifting ring	

3. Layout requirements

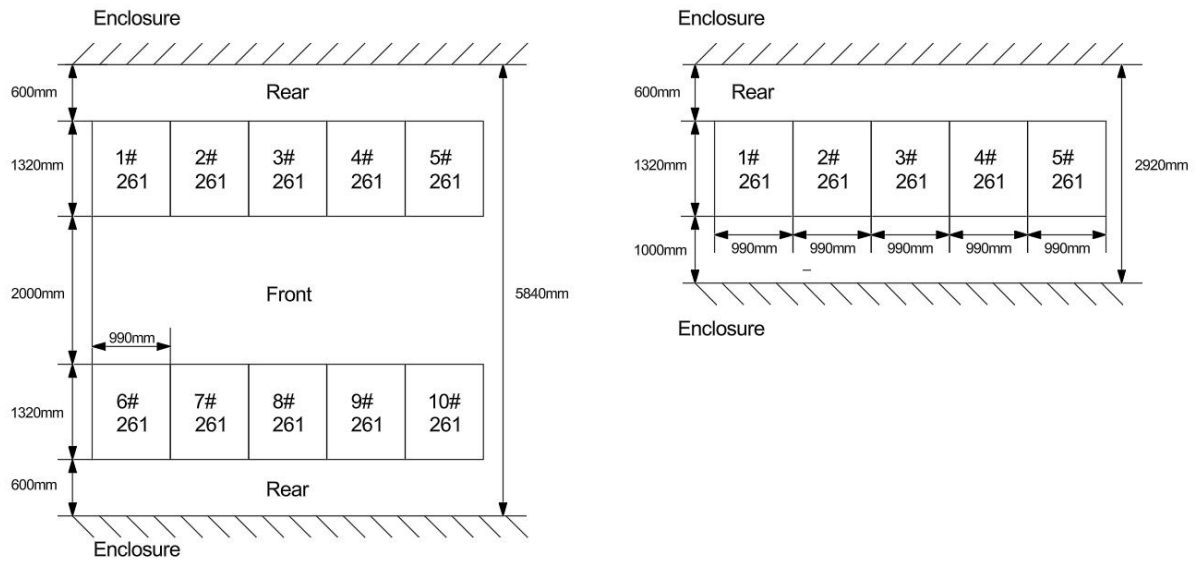


Figure 3.1 Layout requirements

Two rows of cabinets are placed facing each other, following these requirements:

- Maintain at least 600mm of space in rear of the cabinet for maintenance.
- Maintain at least 1000mm of space in front of the cabinet.
- Maintain at least 2000mm of space between cabinet and cabinet.

For single-row cabinet placement, following these requirements:

- Maintain at least 600mm of space in rear of the cabinet for maintenance.
- Maintain at least 1000mm of space in front of the cabinet.

4. Foundation requirements

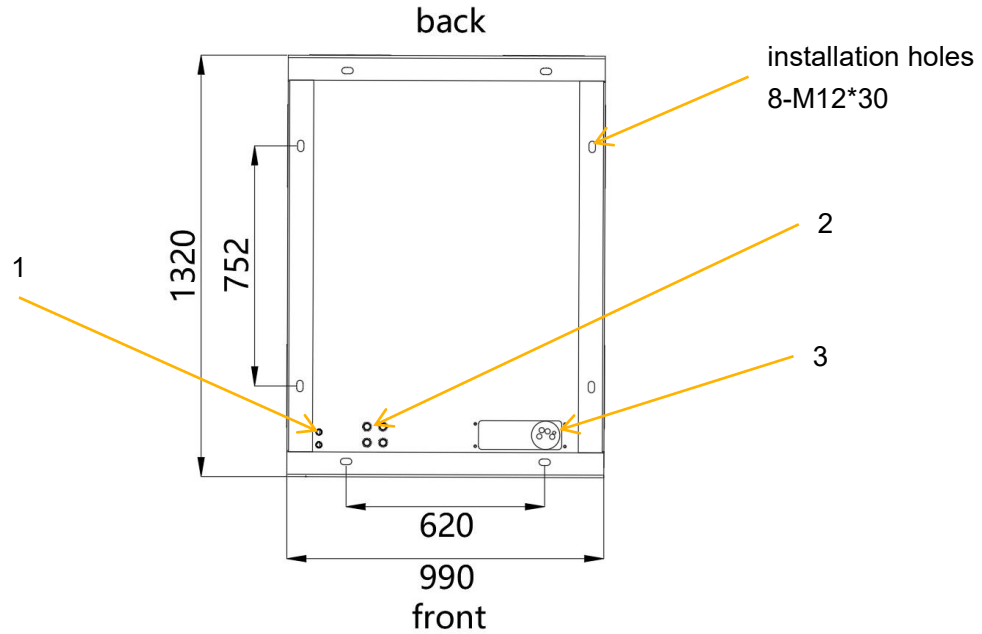


Figure 4.1 Foundation

- The foundation should be flat and have a flat space of 1520 * 1190, with 8 M12 * 30 anchor bolts left for fixing the cabinet.
- Load bearing capacity: $\geq 3T$.
- Hole 1 is the connection of the UPS power cable. Hole 2 is for FFR/FCR/SCADA/DEBUG network cable. Hole 3 is for main power cable.

5. Lifting and moving

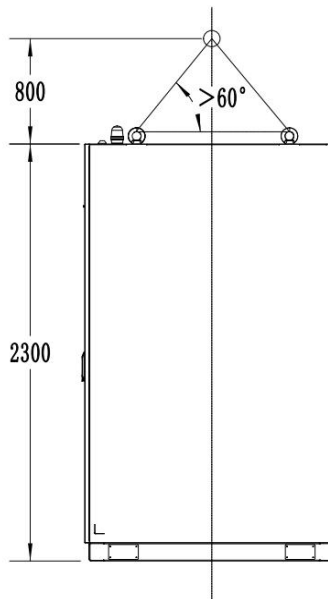


Figure 5.1 Lifting requirements

- Check if the lifting ring is securely fastened. If the lifting ring is loose, please use tool NO.17 in

the tool list to tighten it.

- Lifting with four lifting rings, lifting height greater than 800mm, lifting angle greater than 60°.
- The lifting rope can withstand a weight of 3T, smoothly and slowly lifting and putting down.

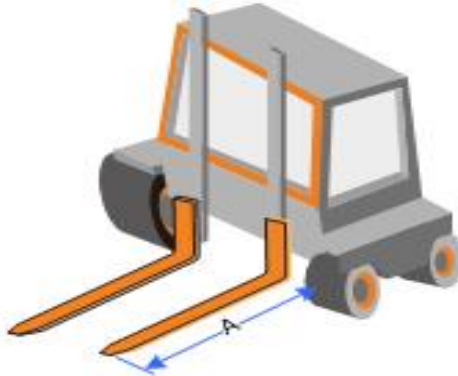


Figure 5.2 Forklift requirements

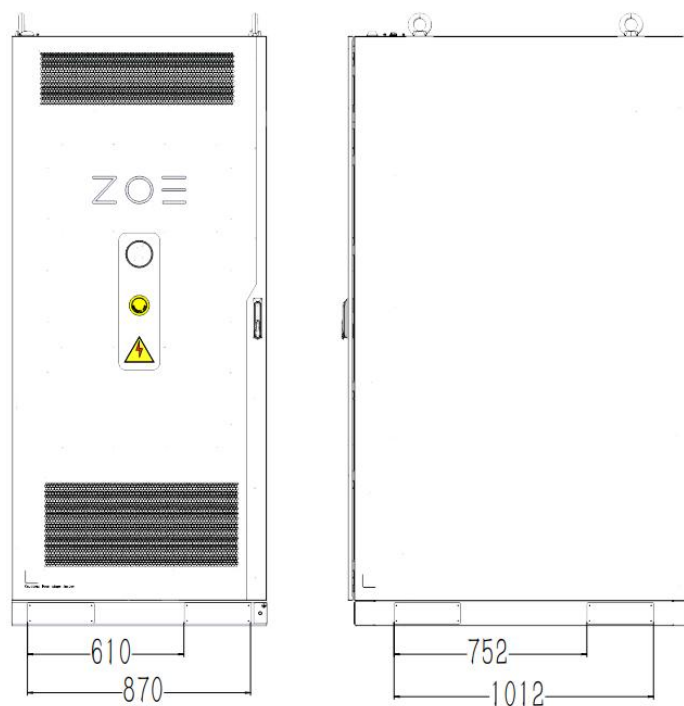


Figure 5.3 Forklift hole diagram

- Forklift insertion length $A > 1500\text{mm}$
- $610\text{mm} < \text{gear width} < 1012\text{mm}$, rated fork weight 3T
- Open the front and rear forklift holes, slowly insert the forklift, slowly move the cabinet, and slowly place the cabinet.

6. Fixed requirements

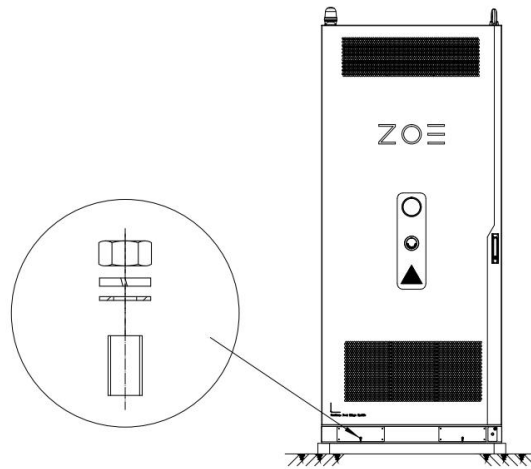


Figure 6.1 Tightening requirements

- After placing the cabinet in place, use M12 nuts, spring washers and flat washers to fix with a torque of $40 \pm 2 \text{ N} \cdot \text{M}$.

7. Requirements for protective grounding installation

- The grounding copper bar of the cabinet must be reliably connected to the protective grounding electrode, with a bolt torque of $25 \pm 2 \text{ N} \cdot \text{M}$.

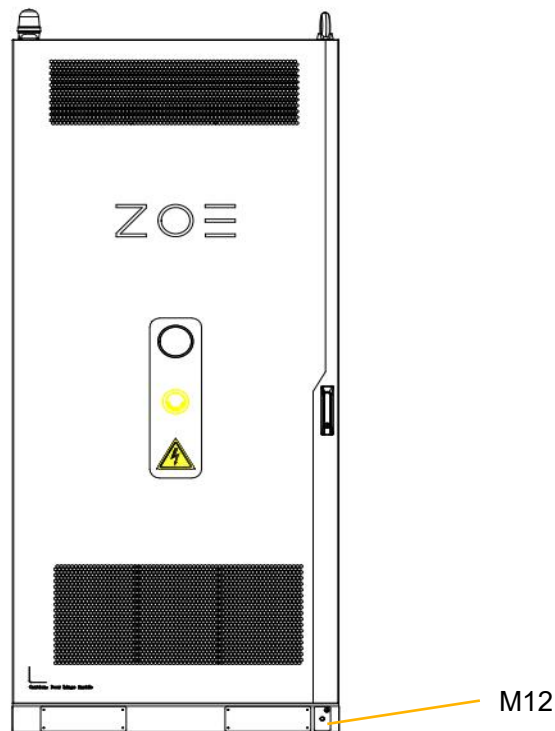


Figure 7.1 Cabinet grounding

8. Installation requirements for power cables

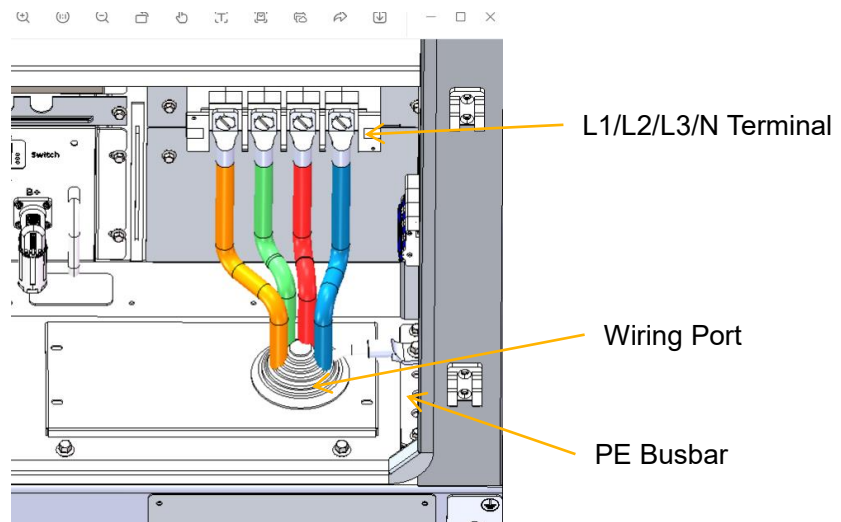


Figure 8.1 Power cable connection

- The cable enters from the bottom of the cabinet, and connect to the terminal(L1/L2/L3/N) of PCS and busbar.
- L1/L2/L3/N Terminal: TLK70-10(Brand:KST), tighten torque: 32~34N·m
- PE terminal: TLK35-8(Brand:KST),tighten torque:32~34N·m

9. Ethernet cable and UPS power cable connection

- FFR/FCR、DEBUG、SCADA Recommend using Cat 6A Ethernet cables for external communication, The cable enters from the bottom of the cabinet, details refer to figure 4.1

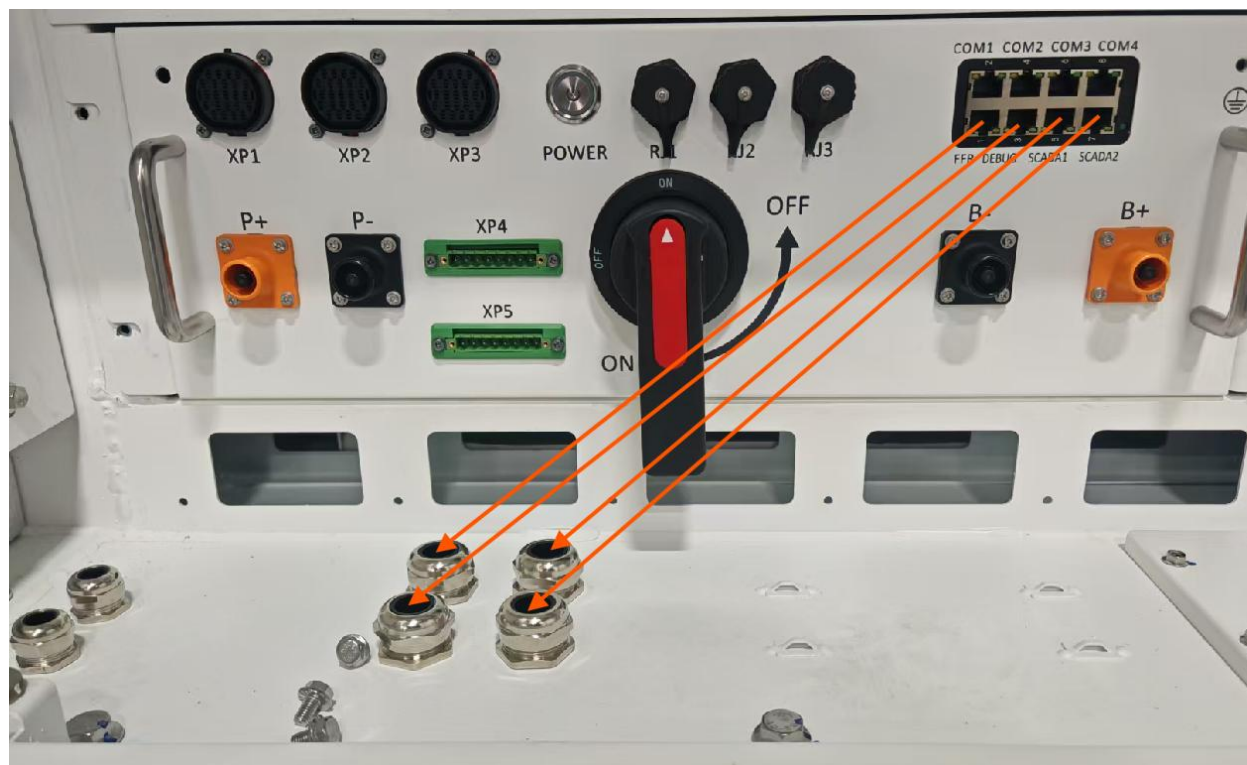


Figure 9.1 External Ethernet Connection Diagram

- AC220V UPS power cable, recommend using two 16AWG cables to connect with terminal XP5:1 and XP5:2. connect torque:0.8-1.0 N*M, terminal type: E1510(brand:KST)

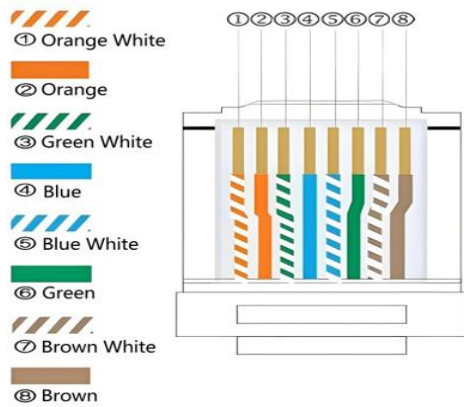


Figure 9.2 Standard T568B

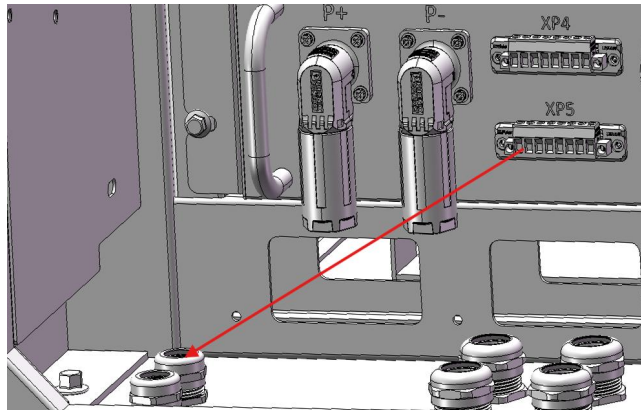


Figure 9.3 UPS power supplier connect

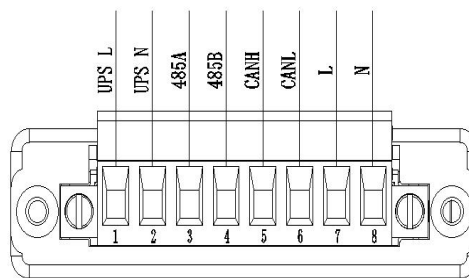


Figure 9.4 XP5 port definition diagram

10. Multiple parallel machines

Multiple parallel machines, we can use network cable connect one by one.

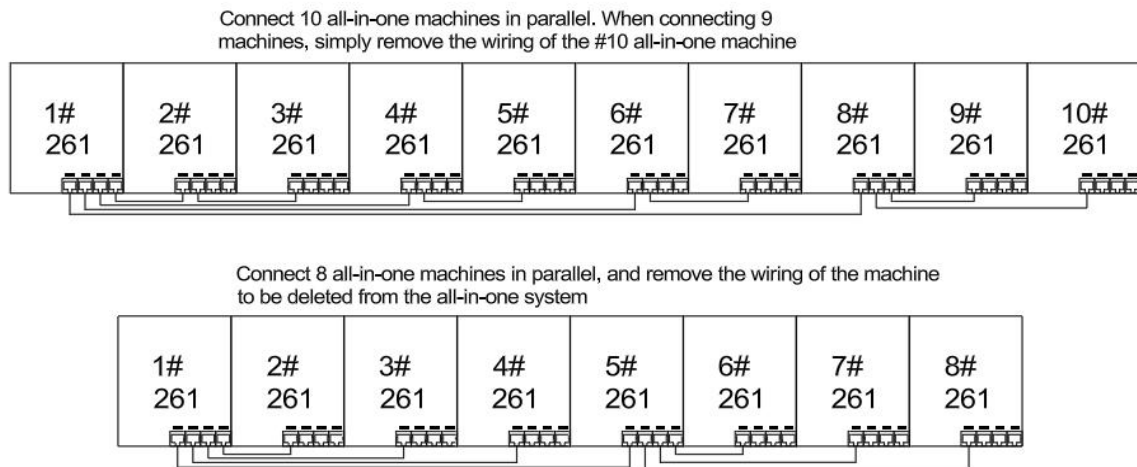


Figure 10.1 Network cable connection

11.Attention

When installation was finished, please check the following:

- Check the reliability and correctness of the wiring.
- Tighten the gland head, and install the cover plate.
- Install the cover plate of the forklift hole.