



Installation manual

HPC CE 480 / 640

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1 About this document

1.1 Function of this document

The document is only applicable for this EVSE (HPC CE 480~640kW).
The document gives the information that is necessary to install the EVSE.

1.2 Target group

The document is intended for qualified installation engineers.
For a description of the required qualifications, refer to section 2.3.

1.3 Revision history

Version	Date	Description
001	June 2026	Initial version

1.4 Language

The original instructions of this document are in English (EN-US). All other language versions are translations of the original instructions.

1.5 Units of measurement

SI units of measurement (metric system) are used. If necessary, the document shows other units between parentheses () or in separate columns in tables.

1.6 General symbols and signal words

Symbol	Description
	You must read the manual or relative documents before you install the EVSE.
	General warning, if you do not obey the instruction, this can cause injury or death.
	Hazard voltage that gives risk of electrocution.

	Hot surface that gives risk of burn injuries.
	Electrotechnical expertise is required, according to the local rules.
	Protective Earth (PE)
	Alternative current
	Direct current
	The symbol indicating separate collection for EEE consists of the crossed-out wheeled bin, as shown below. The symbol must be printed visibly, legibly and indelibly.

1.7 Manufacturer and contact data

Chargedot Shanghai New Energy Technology Co., Ltd.
No. 2368, Hongjian Road, Pinghu Economic Development Zone, Jiaxing, Zhejiang
Province, P.R. China
E-mail address: afterservice@chargedot.com

2 Safety

2.1 Liability

The manufacturer shall not be liable to the purchaser of the EVSE or to any third party for any damage, loss, cost or expense incurred by the purchaser or any third party as a result of failure to comply with any of the following instructions:

- Follow the instructions in the relevant documents. Refer to section 1.11.
- Do not misuse or abuse the EVSE.
- Only make changes to the EVSE, if the manufacturer approves in writing of the changes.

This EVSE is designed to be connected to and to communicate information and data via a network interface. It is the sole responsibility of the owner to provide and continuously ensure a secure connection between the EVSE and the network of the owner or any other network.

The owner shall establish and maintain any appropriate measures (such as - but not limited to the installation of firewalls, application of authentication measures, encryption of data and installation of anti-virus programs) to protect the EVSE, the network, its system and the interface against any kind of security breaches, unauthorized access, interference, intrusion, leakage and/or theft of data or information.

The manufacturer is not liable for damages and/or losses related to such security breaches, any unauthorized access, interference, intrusion, leakage and/or theft of data or information.

The manufacturer declares that the equipment complies with the regulations currently in force in the country of installation and has issued the corresponding declaration of conformity.

2.2 General safety instructions

This document, the related documents and the warnings included do not replace your responsibility to use your common sense when you do work on the EVSE.

- Only do the procedures that the related documents show and that you are qualified for.
- Obey the local rules and the instructions in this manual. If the local rules contradict the instructions in this manual, the local rules will apply.
- If and to the extent permitted by law, in case of inconsistency or contradiction, between any requirements or procedure contained in this document and any such local rules, obey the stricter between the requirements and procedures specified in this document and the local rules.

2.3 Required qualifications for the installation engineer

- The qualified installation engineer fully knows the EVSE and its safe installation.
- The installation engineer is qualified to work on high-voltage and high-current electrical installations.
- The qualified installation engineer obeys all local rules and the instructions in the installation manual.
- It is the responsibility of the owner of the EVSE to make sure that all qualified installation engineers obey the local rules, the installation instructions, and the specifications of the EVSE.

2.4 Personal protective equipment

Symbol	Description
	Protective clothing
	Safety gloves
	Safety shoes
	Safety glasses

2.5 Safety instructions for use

In the situations that follow, do not use the EVSE and immediately contact the manufacturer:

- An enclosure has damage.
- An EV charge cable or connector has damage.
- Lightning struck the EVSE.
- There was an accident or a fire at or near the EVSE.
- Water has entered the EVSE.

2.6 Safety instructions during cleaning or maintenance

- Keep unauthorized personnel at a safe distance during cleaning or maintenance.
- If for cleaning or maintenance it is necessary to remove safety devices, immediately install the safety devices after the work.
- Obey the safety instructions that apply to the hoisting equipment or the forklift truck.
- Put on the correct personal protective equipment. Refer to section 3.4.

2.7 Safety instructions for earthing

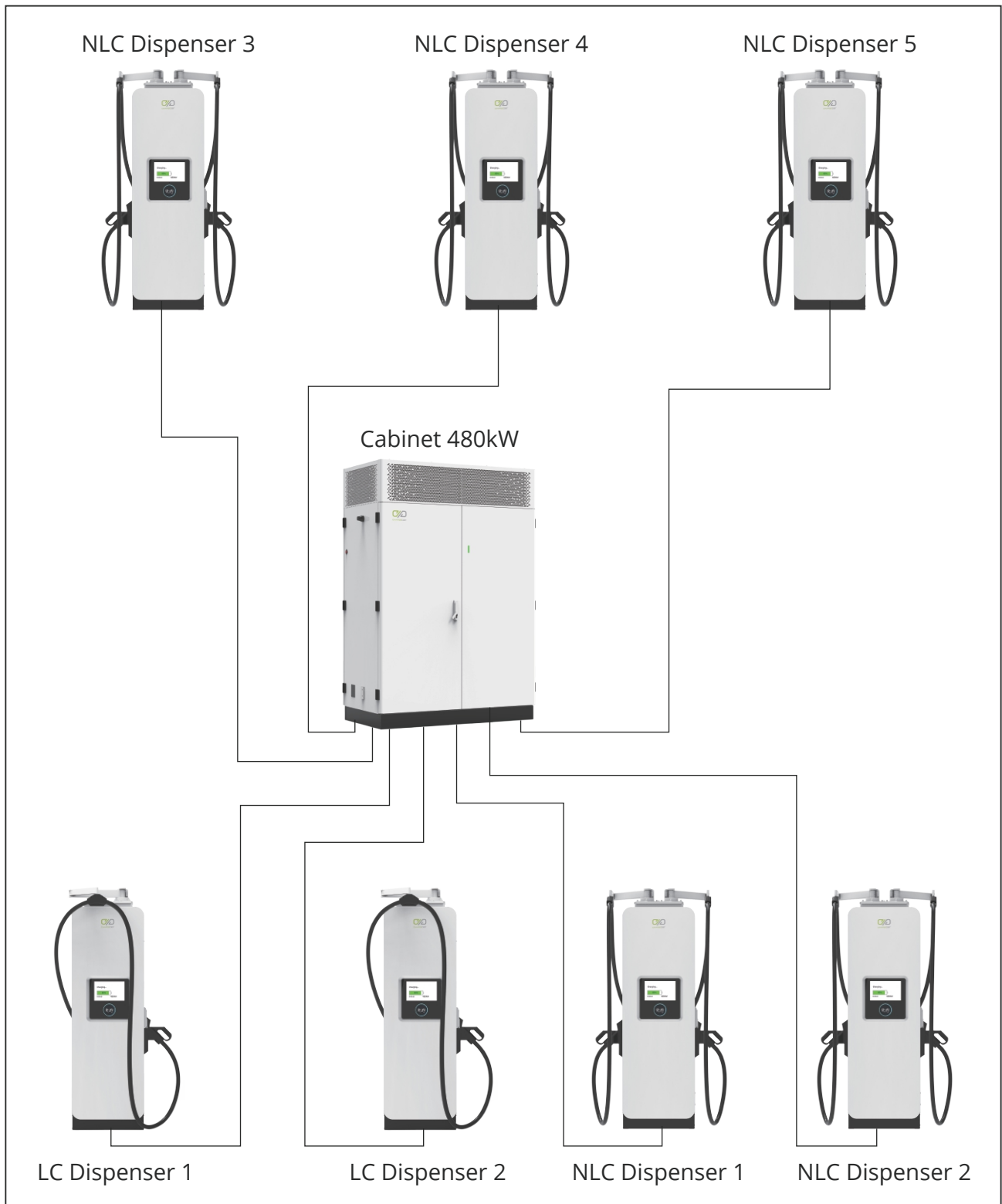
- Make sure that the EVSE is connected to an earthed, metal, permanent electrical system. Alternatively, install an equipment-earthing conductor with circuit conductors. Connect this earthing conductor to an equipment-earthing terminal lead on battery charger.
- Make sure that the connections to the EVSE comply with all applicable local rules.

2.8 Discard parts or the EVSE

- Obey the local rules to discard parts, packaging material or the EVSE.

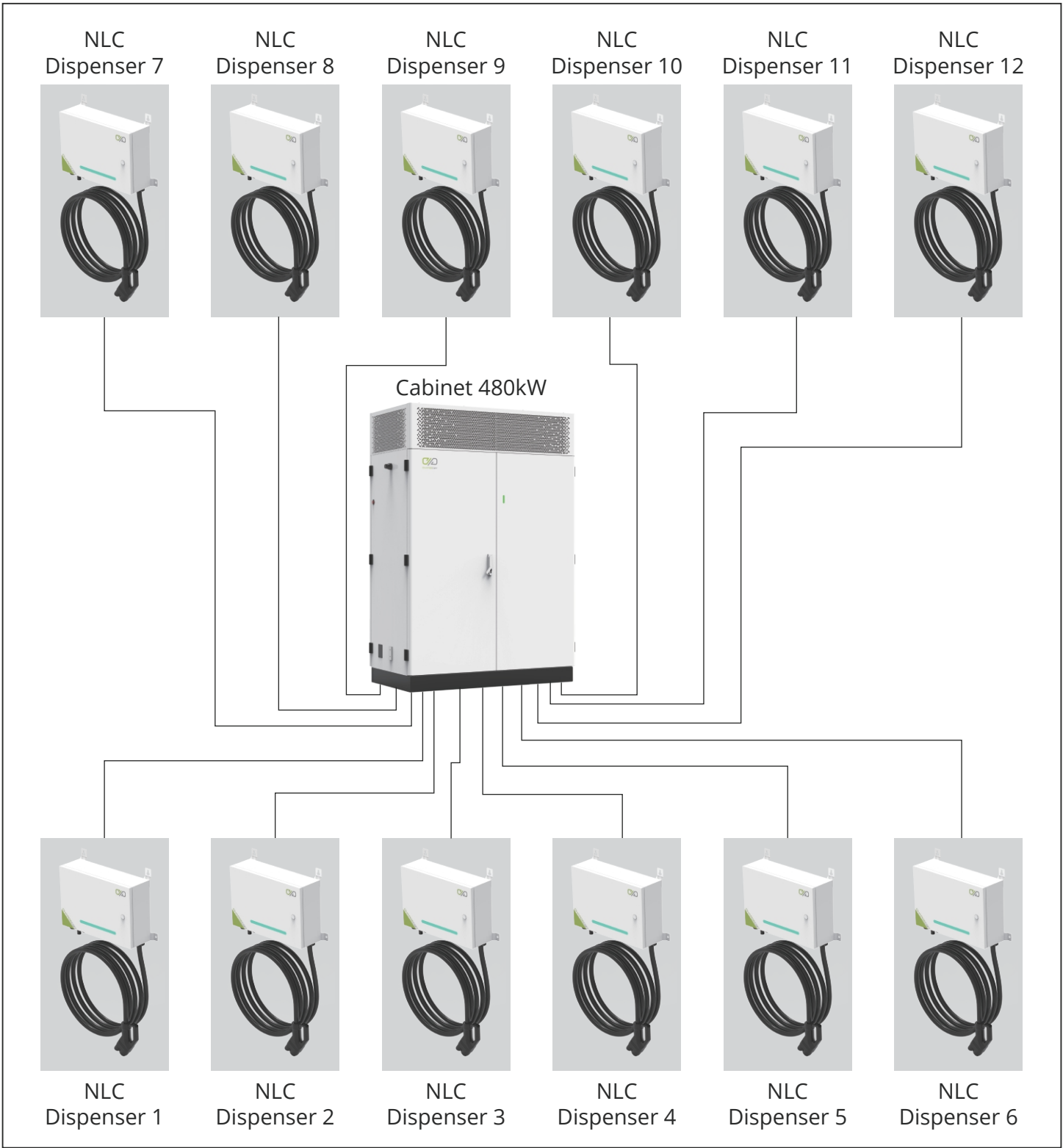
3 Product system solution

3.1 HPC CE 480~640kW 1V12 system diagram (LC/NLC charger post)



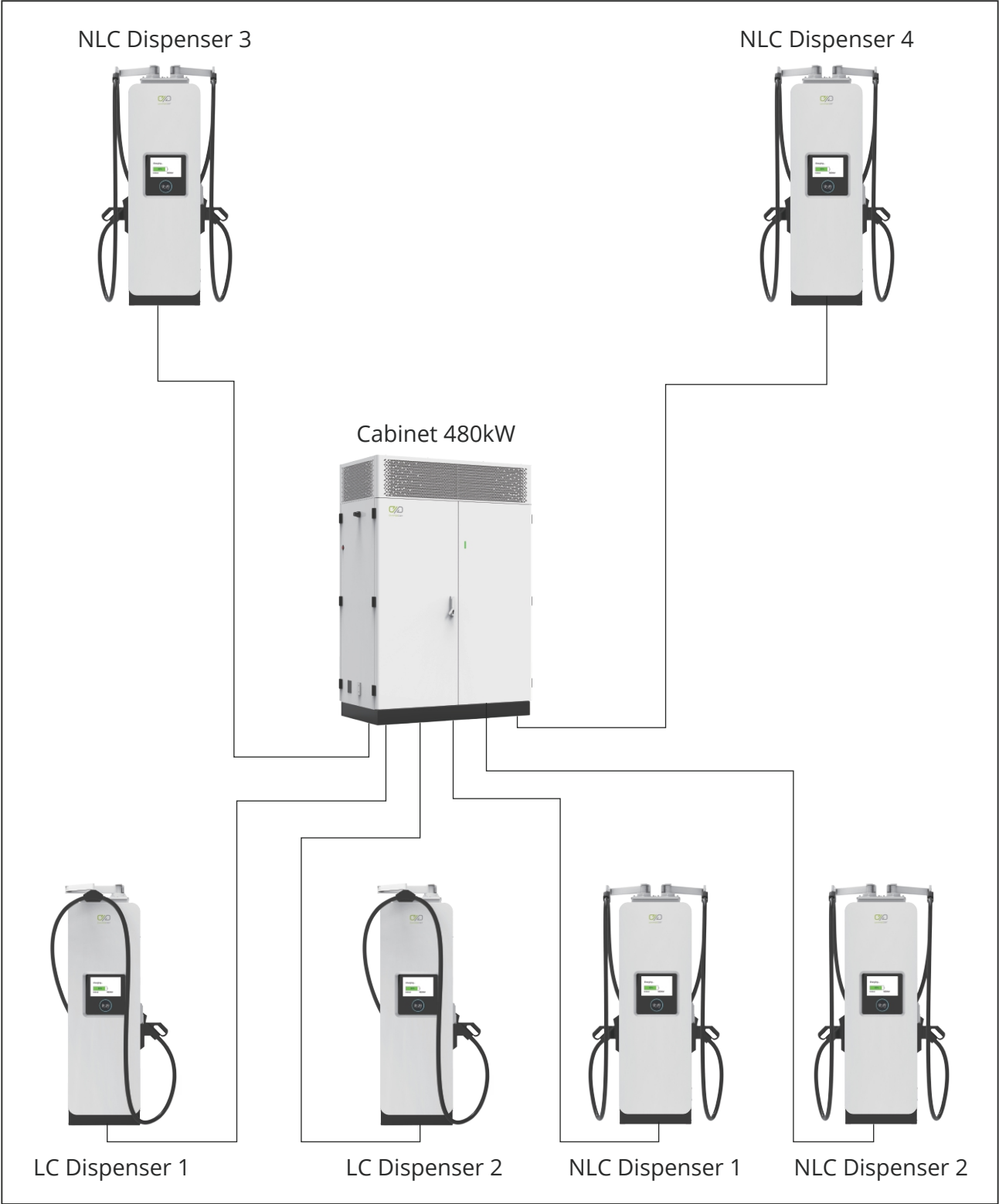
System diagram

3.2 HPC CE 480~640kW 1V12 system diagram (Control box)



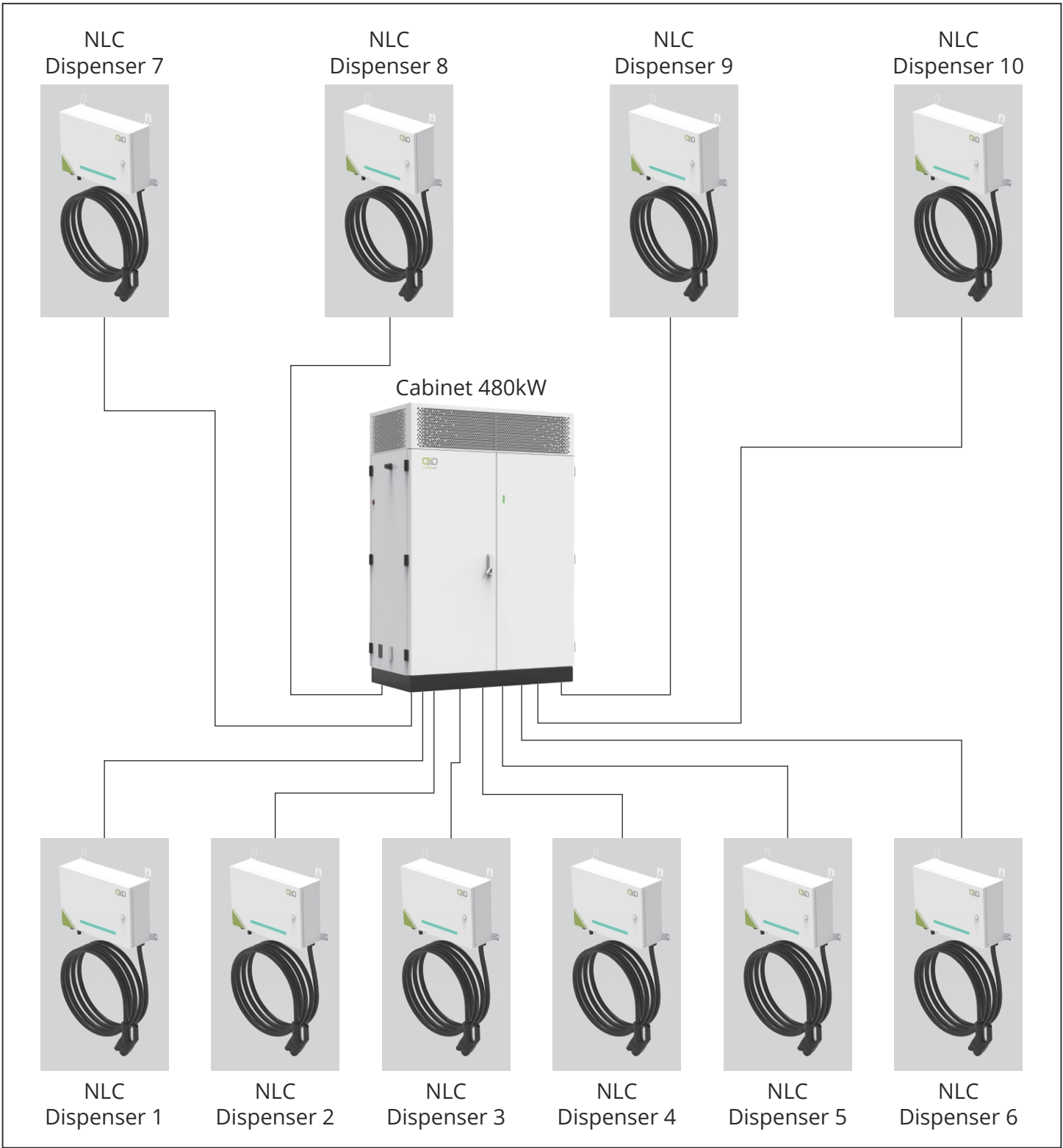
System diagram

3.3 HPC CE 480~640kW 1V10 system diagram (LC/NLC charger post)



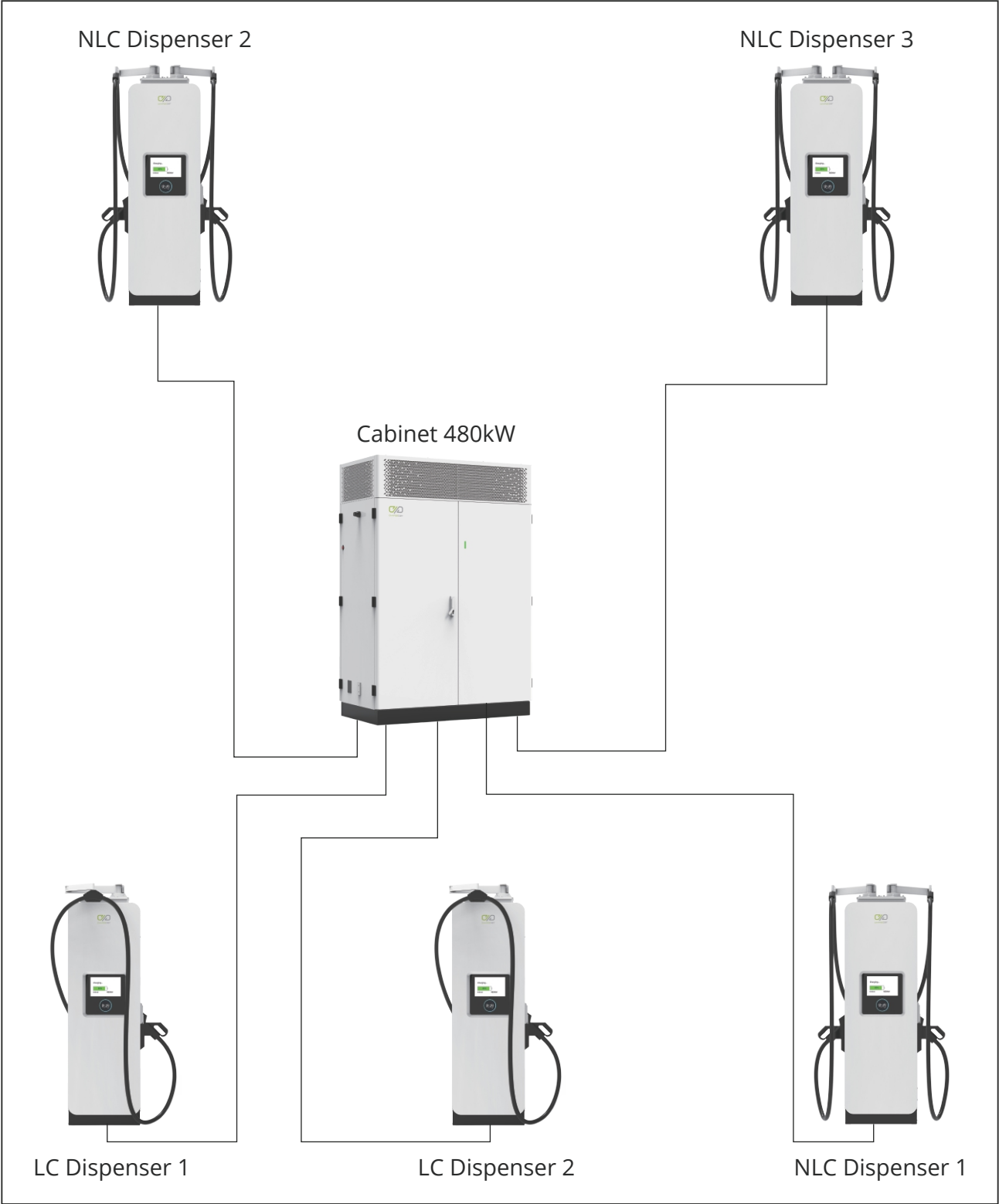
System diagram

3.4 HPC CE 480~640kW 1V10 system diagram (Control box)



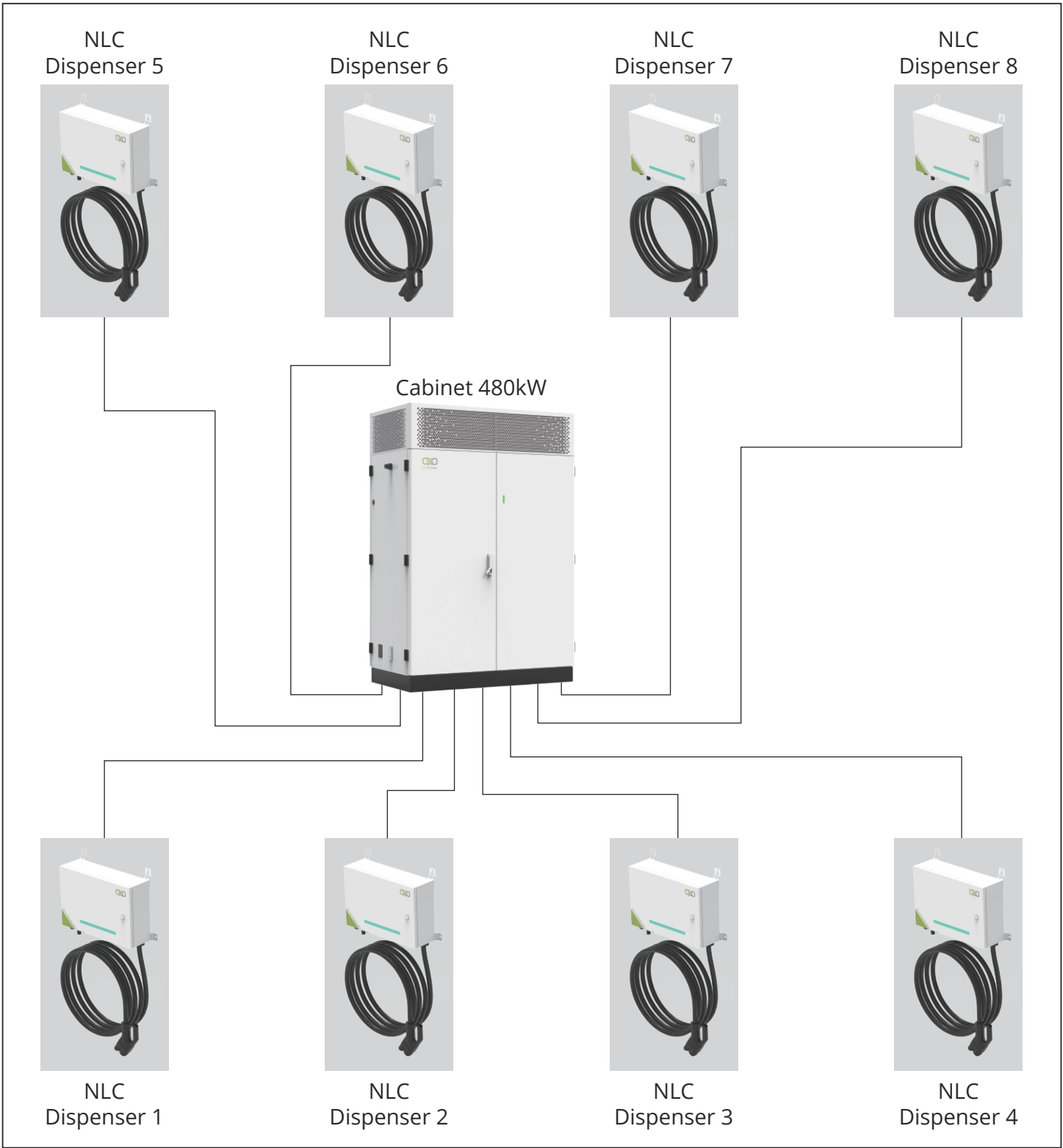
System diagram

3.5 HPC CE 480~640kW 1V8 system diagram (LC/NLC charger post)



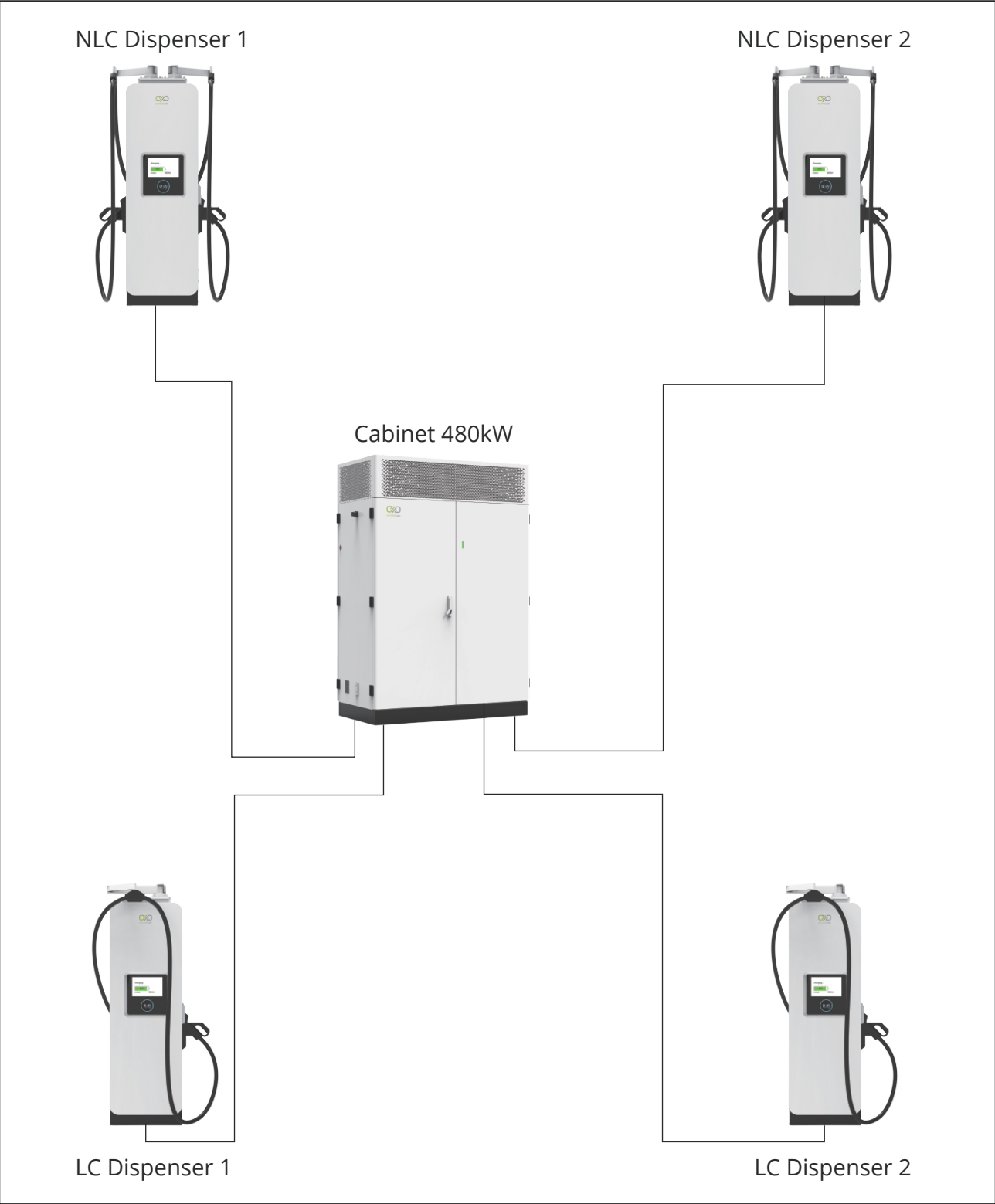
System diagram

3.6 HPC CE 480~640kW 1V8 system diagram (Control box)



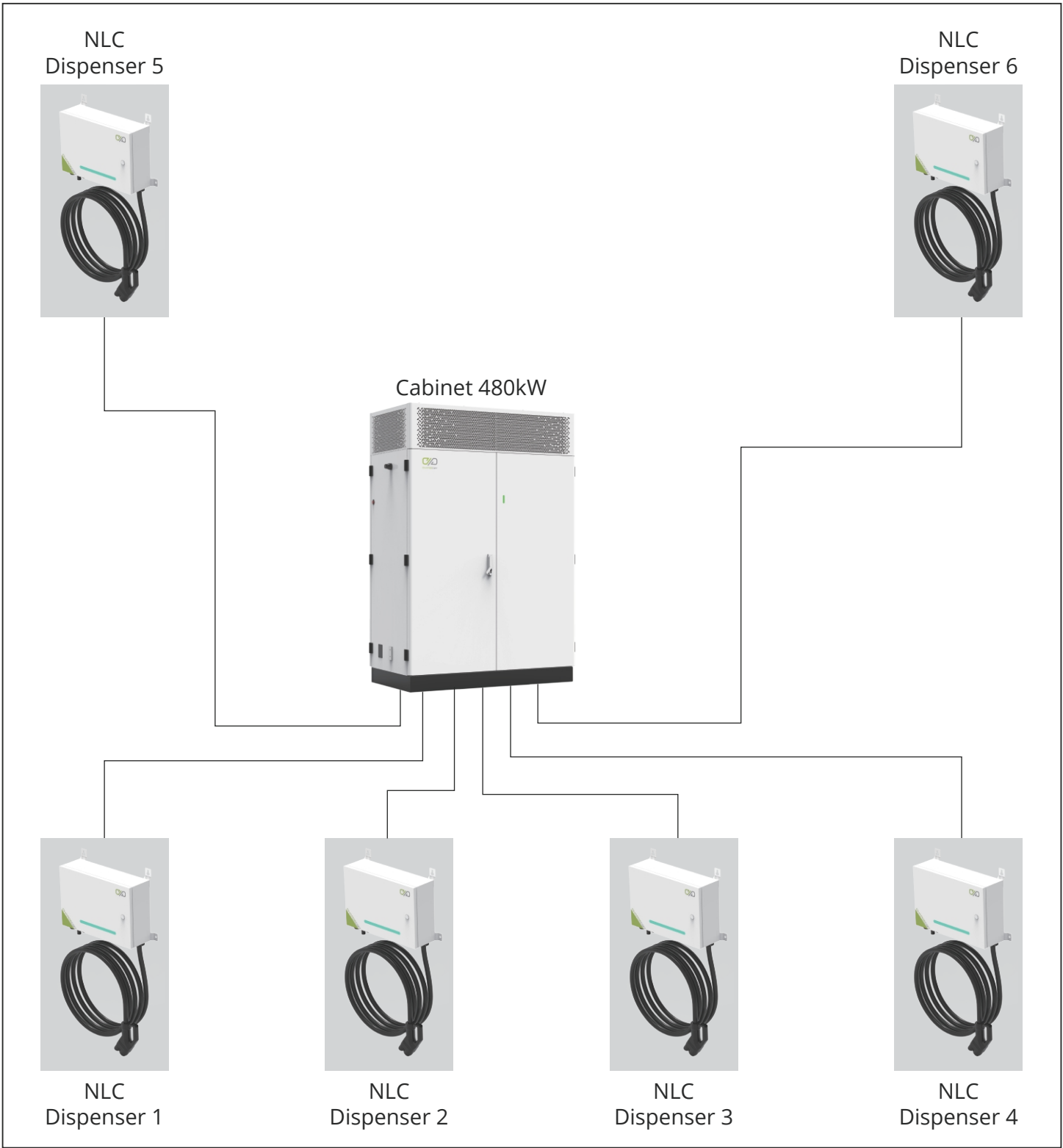
System diagram

3.7 HPC CE 480~640kW 1V6 system diagram (LC/NLC charger post)



System diagram

3.8 HPC CE 480~640kW 1V6 system diagram (Control box)

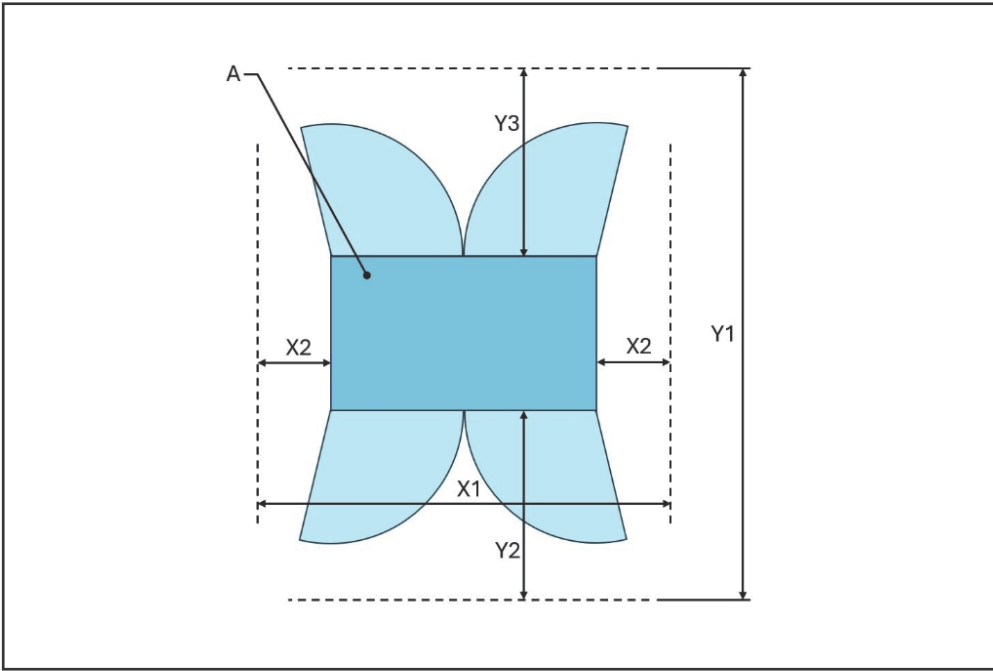


System diagram

4 Equipment installation

4.1 Power cabinet

4.1.1 Space requirements of power cabinet

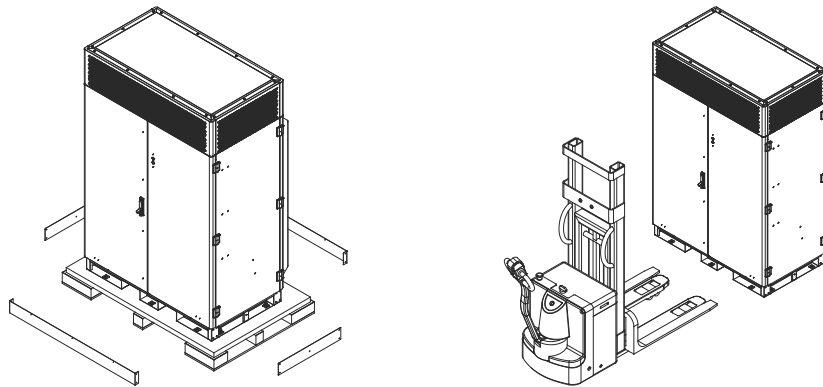


A	Cabinet	Y1	Total depth
X1	Total width	Y2	Space to open the front door
X2	Space for air inlet and to open the left and right doors	Y3	Space for air outlet

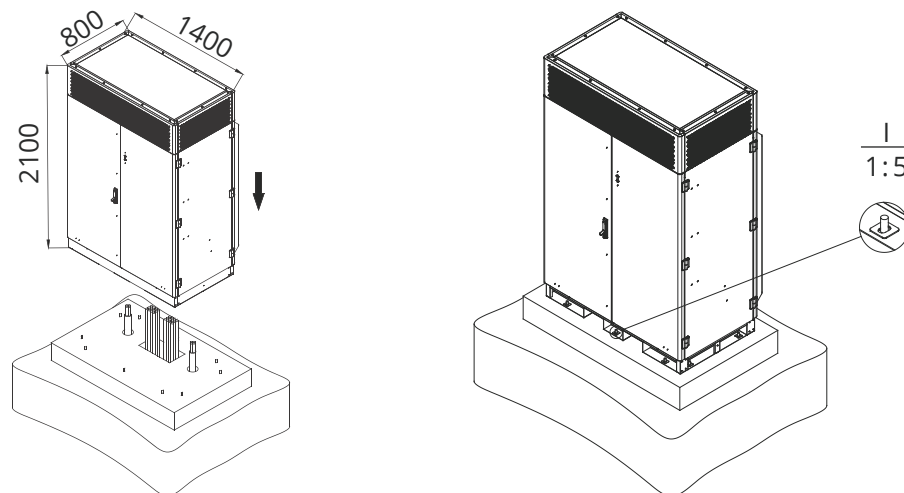
Parameter	Specification [mm]
X1	2000
X2	300
Y1	2300
Y2	750
Y3	750

4.1.2 Base installation for power cabinet

Open the U-shaped front and rear panels, and remove them from the base. Remove the screws connecting the pallet to the cabinet. Move the toes(A) of the forklift truck into the gaps of the cabinet.



Raise the cabinet about 0.5m and place it on the mounting base. Ensure that the cabinet holes are aligned with the bolt locations. Install flat washers, spring washers, and M14 nuts on the floor bolts at the corners of the base or on the floor bolts on the left and right sides of the base. To lock these nuts, use a torque of 95.5N·m.



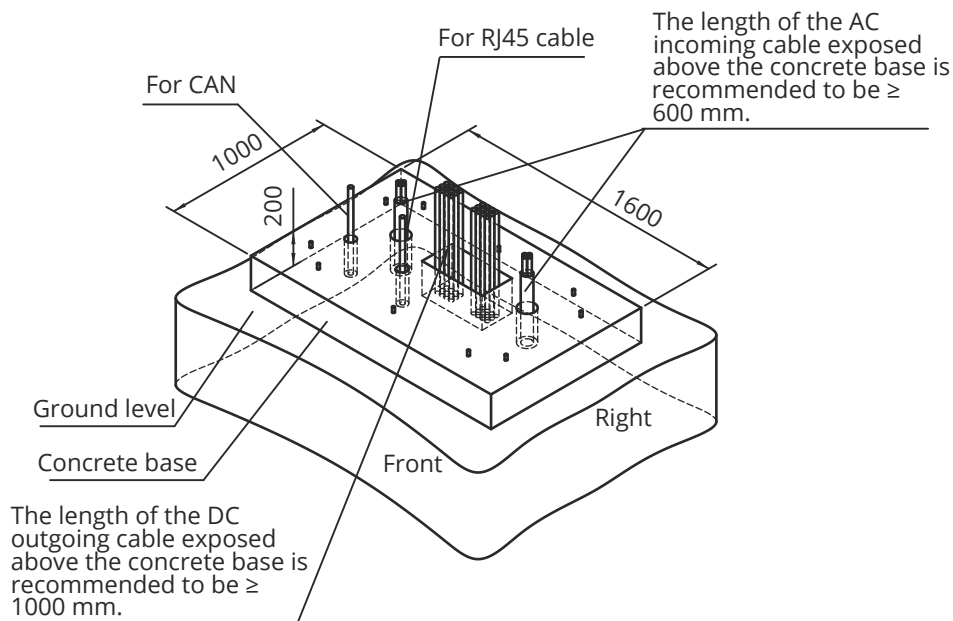
4.1.3

Prepare a standard prefab foundation

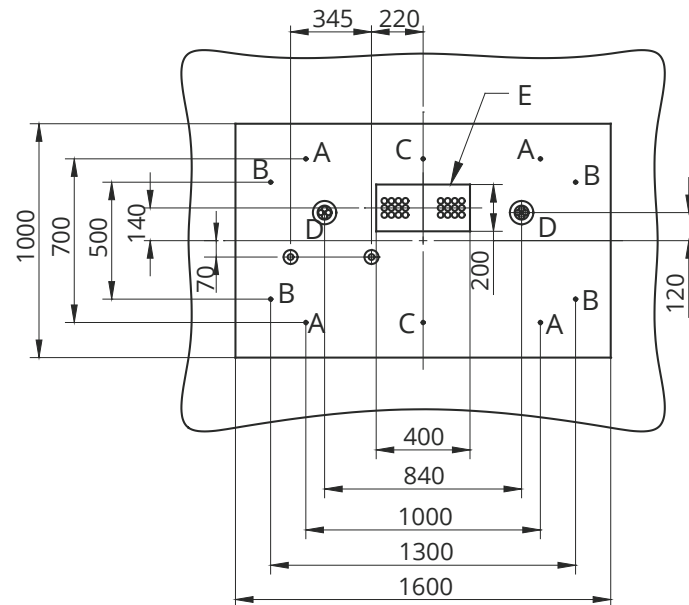
If the EVSE is to be installed indoors or other areas where the altitude is high, then no foundation is needed. But, one thing need to be confirmed is that, the ground level should not exceed $\pm 1.5\text{mm}$ per square meter, and the compressive strength of the concrete should not less than 30 MPa per standard cubic.

If the EVSE is to be installed outdoors and the altitude is low, a concrete or steel trench base will be useful. The height of the concrete base is 200mm above the ground level (the recommended height: no less than 500mm below ground level). The mounting surface is pre-buried with stainless steel bolts (M14*6) with a thread of $30\pm 3\text{ mm}$ above the ground. The design of the base depends on the actual situation on site, the following instructions can be referred to:

Equipment Installation



The proposal of mounting locating hole can be referred to:



A+C Base mounting holes (Recommended Mounting Scheme 1)

B+C Base mounting holes (Recommended Mounting Scheme 2)

D Base cable entry hole

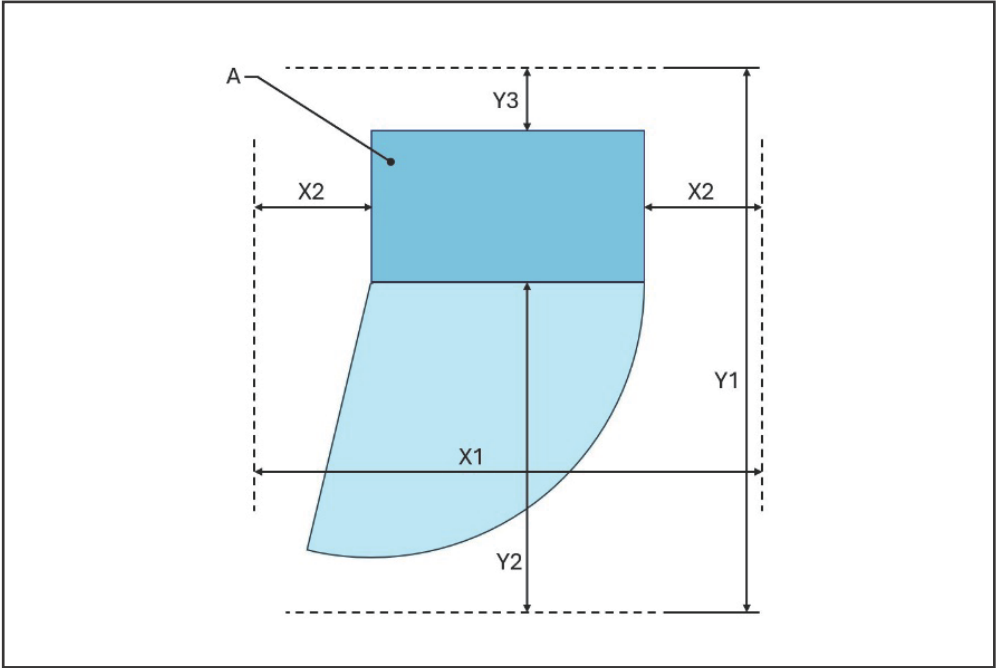
E Base cable exit hole, dimensions 400×200

Note:

- The power cabinet base provides the above two mounting dimension schemes: A+C and B+C. Either one can be selected.
- The base shall be installed with M14 expansion bolts or M14 embedded bolts.
- After bolt embedding, the thread shall protrude 30 ± 3 mm above the ground.
- When installed in a controlled environment free of typhoons and overturning forces, it is allowed to use four screws for fixation instead:
Scheme 1: Use the four corner mounting holes at the front and rear of the pile body.
Scheme 2: Use four mounting holes on the left and right sides.
- All cable entry holes shall be sealed with fire-resistant putty.

4.2 Air-cooled charging post

4.2.1 Space requirements for air-cooled dual-gun charger post



- A

Cabinet
- X1

Total width
- X2

Space for air inlet and to open the left and right doors
- Y1

Total depth
- Y2

Space to open the front door
- Y3

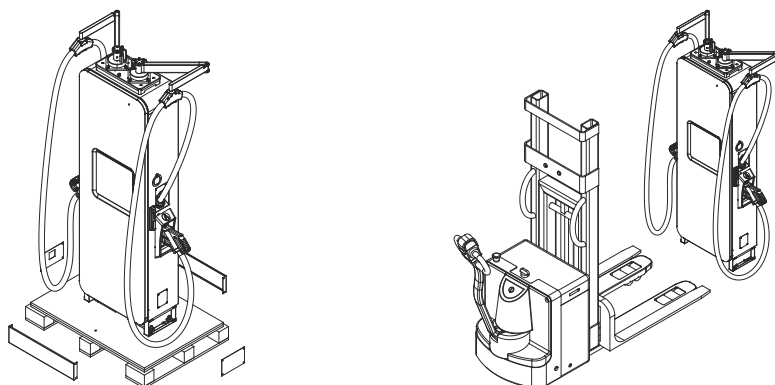
Space for air outlet

Parameter	Specification [mm]
X1	1750
X2	600
Y1	1050
Y2	570
Y3	200

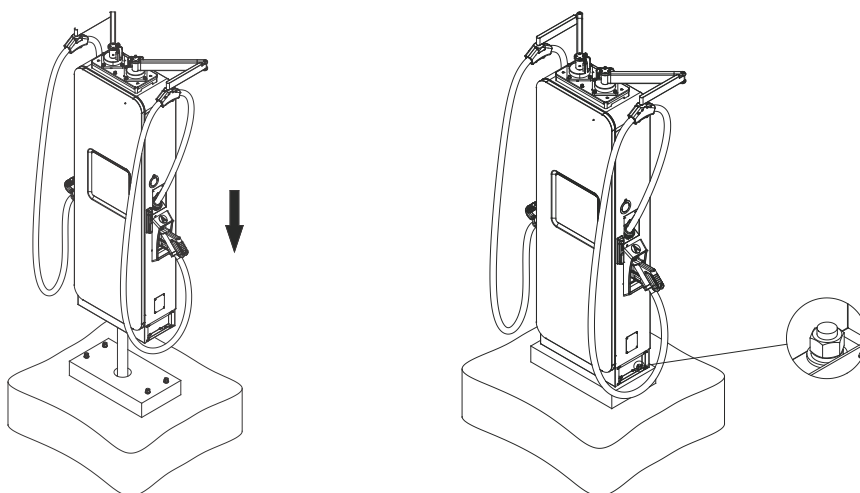
Space requirements for installation of the Air-Cooled Dual-Gunthe Charger Post: 1750 × 1050 mm. Space calculation is as follows:
Dimensions of the Air-Cooled Dual-Gunthe Charger Post : 550 × 280 × 1800 mm.
Reserved clearance at the front: ≥ 570 mm, to ensure normal opening/closing of the front door and smooth operation.
Reserved clearance on the left side: ≥ 600 mm, to ensure smooth gun plugging/unplugging and unobstructed airflow from the side air intake.
Reserved clearance on the right side: ≥ 600 mm, to ensure smooth gun plugging/unplugging and unobstructed airflow from the side air intake.
Reserved clearance at the rear: ≥ 200 mm, to ensure smooth installation and adequate surrounding ventilation.

4.2.2 Base installation for air-cooled dual-gun charger post

Open the U-shaped front and rear panels, and remove them from the base. Remove the screws connecting the pallet to the cabinet. Move the toes(A) of the forklift truck into the gaps of the cabinet.



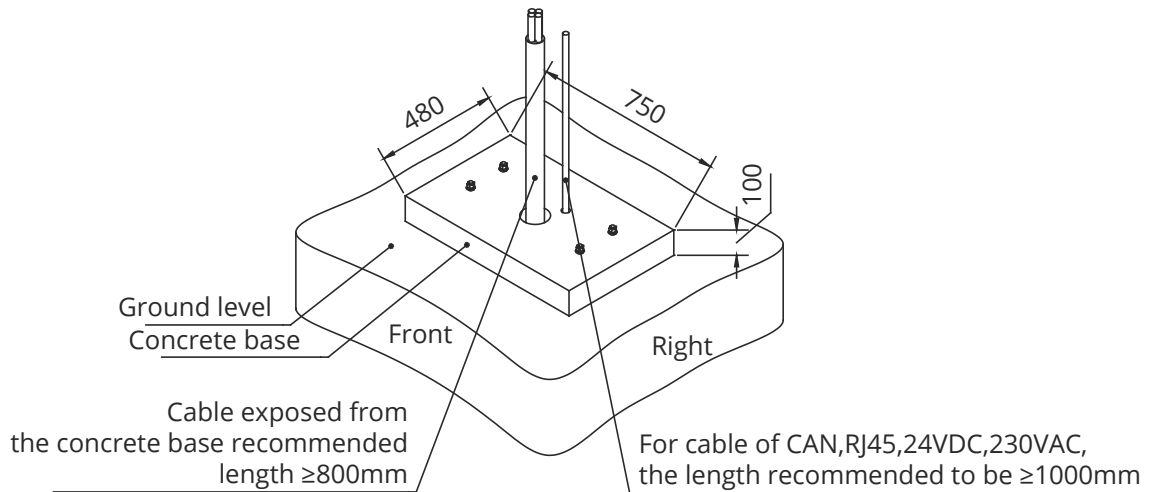
Raise the cabinet about 0.5m and place it on the mounting base. Ensure that the cabinet holes are aligned with the bolt locations. Install flat washers, spring washers, and M14 nuts on the floor bolts at the corners of the base or on the floor bolts on the left and right sides of the base. To lock these nuts, use a torque of 95.5N·m.



4.2.3 Prepare a standard prefab foundation

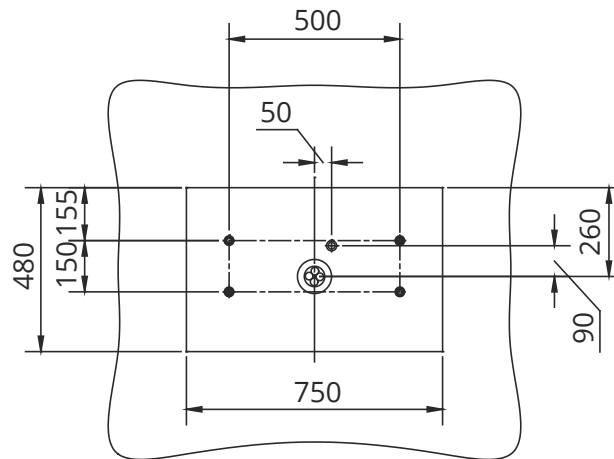
If the EVSE is to be installed indoors or other areas where the altitude is high, then no foundation is needed. But, one thing need to be confirmed is that, the ground level should not exceed $\pm 1.5\text{mm}$ per square meter, and the compressive strength of the concrete should not less than 30 MPa per standard cubic.

If the EVSE is to be installed outdoors and the altitude is low, a concrete or steel trench base will be useful. The height of the concrete base is 100mm above the ground level (the recommended height: no less than 500mm below ground level). The mounting surface is pre-buried with stainless steel bolts (M14*4) with a thread of 30 ± 3 mm above the ground. The design of the base depends on the actual situation on site, the following instructions can be referred to:



Concrete Base Dimension Drawing

The proposal of mounting locating hole can be referred to:



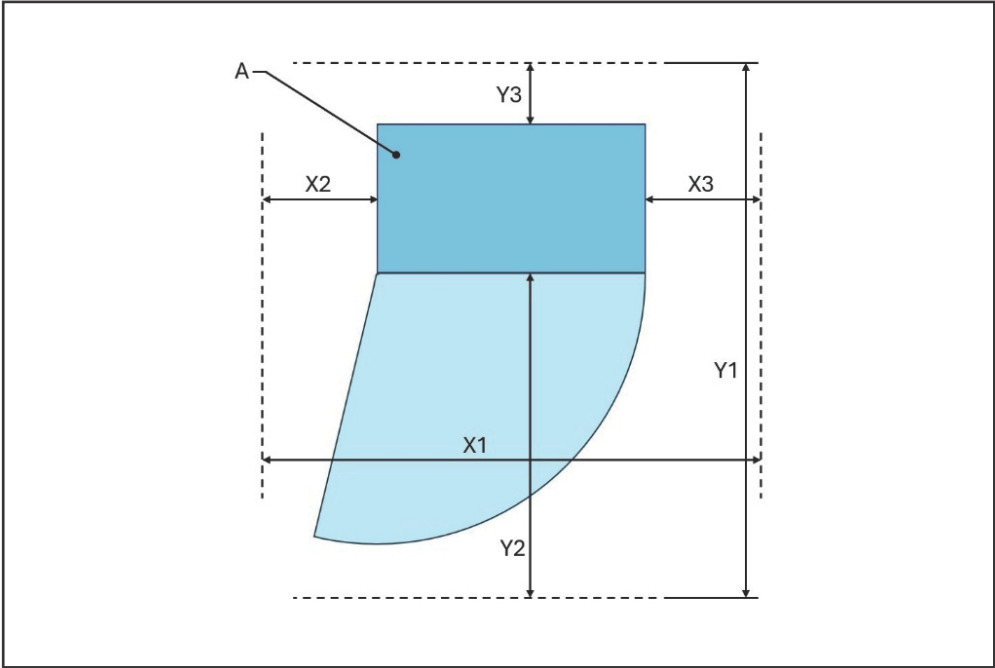
Mounting Hole Location Dimension Drawing

Note:

- The base shall be installed with M14 embedded bolts.
- After bolt embedding, the thread shall protrude 30 ± 3 mm above the ground.
- When installed in a controlled environment free of typhoons and overturning forces, it is allowed to use four screws for fixation instead.
- Fill holes inside and outside of the base with sand and gravel, and seal the holes with fireproof mud to prevent rodents, insects and other small animals from entering the EVSE.
- The base of the EVSE should be 100mm above the ground.
- Ensure the cables can be accessed through the pre-built tube on the figure, with a hole diameter of no less than 100mm.

4.3 Liquid-cooled charging post

4.3.1 Space requirements for liquid-cooled charger post



A	Cabinet	Y1	Total depth
X1	Total width	Y2	Space to open the front door
X2	Space for air inlet and to open the left and right doors	Y3	Space for air outlet

Parameter	Specification [mm]
X1	1450
X2	300
Y1	1050
Y2	570
Y3	200

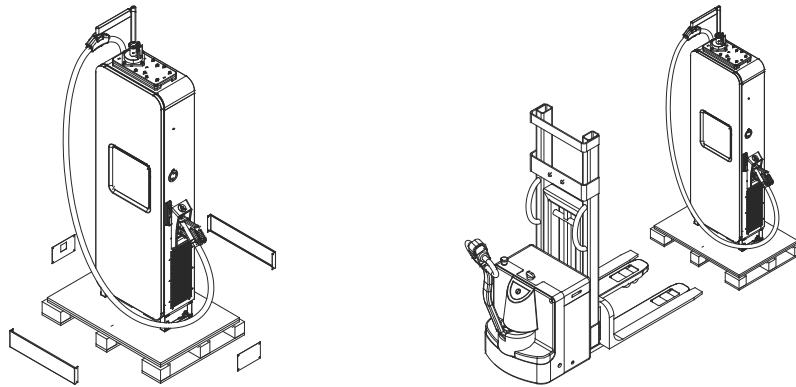
Space requirements for liquid-cooledthe Charger Post installation: 1750×1050 mm.
Space calculation is as follows:

1. Dimensions of liquid-cooledthe Charger Post: 550×280×1800 mm.
2. Reserved clearance at the front: ≥ 570 mm to ensure normal opening and closing of the front door and smooth operation.
3. Reserved clearance on the left side: ≥ 300 mm to ensure smooth gun plugging/unplugging and unobstructed airflow from the side air intake.
4. Reserved clearance on the right side: ≥ 600 mm to ensure smooth gun plugging/unplugging and unobstructed airflow from the side air intake.
5. Reserved clearance at the rear: ≥ 200 mm to ensure smooth installation and good surrounding ventilation.

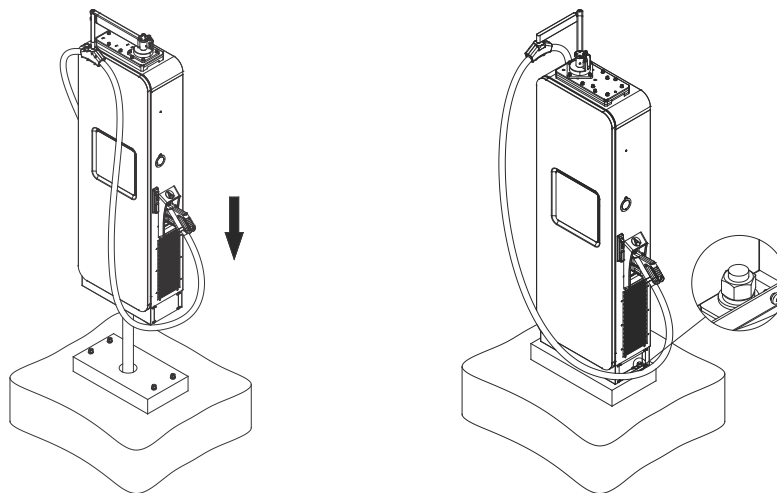
4.3.2

Base installation for liquid-cooled charger post

Open the U-shaped front and rear panels, and remove them from the base. Remove the screws connecting the pallet to the cabinet. Move the toes(A) of the forklift truck into the gaps of the cabinet.



Raise the cabinet about 0.5m and place it on the mounting base. Ensure that the cabinet holes are aligned with the bolt locations. Install flat washers, spring washers, and M14 nuts on the floor bolts at the corners of the base or on the floor bolts on the left and right sides of the base. To lock these nuts, use a torque of 95.5N·m.

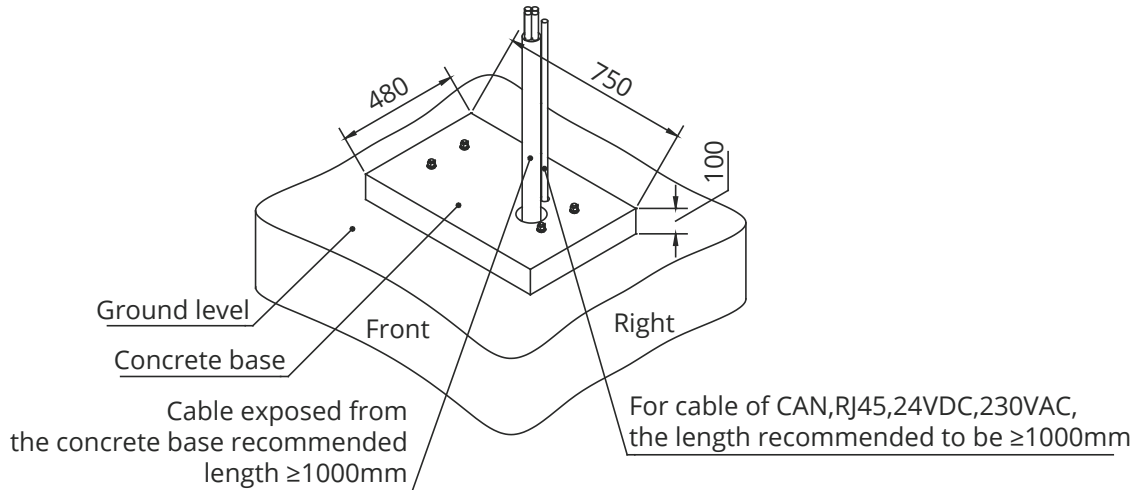


4.3.3

Prepare a standard prefab foundation

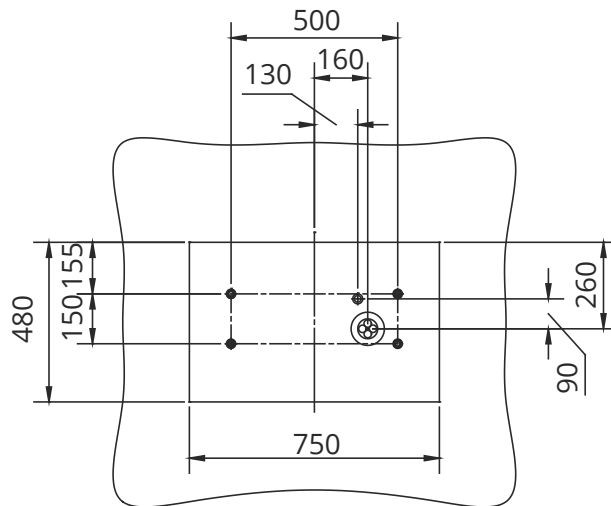
If the EVSE is to be installed indoors or other areas where the altitude is high, then no foundation is needed. But, one thing need to be confirmed is that, the ground level should not exceed $\pm 1.5\text{mm}$ per square meter, and the compressive strength of the concrete should not less than 30 MPa per standard cubic.

If the EVSE is to be installed outdoors and the altitude is low, a concrete or steel trench base will be useful. The height of the concrete base is 100mm above the ground level (the recommended height: no less than 500mm below ground level). The mounting surface is pre-buried with stainless steel bolts (M14*4) with a thread of 30 ± 3 mm above the ground. The design of the base depends on the actual situation on site, the following instructions can be referred to:



Concrete Base Dimension Drawing

The proposal of mounting locating hole:



Mounting Hole Location Dimension Drawing

Note:

- The base shall be installed with M14 embedded bolts.
- After bolt embedding, the thread shall protrude 30 ± 3 mm above the ground.
- When installed in a controlled environment free of typhoons and overturning forces, it is allowed to use four screws for fixation instead.
- Use four screws for fixation instead: Fill holes inside and outside of the base with sand and gravel, and seal the holes with fireproof mud to prevent rodents, insects and other small animals from entering the EVSE.
- The base of the EVSE should be 100mm above the ground.
- Ensure the cables can be accessed through the pre-built tube on the figure, with a hole diameter of no less than 100mm.

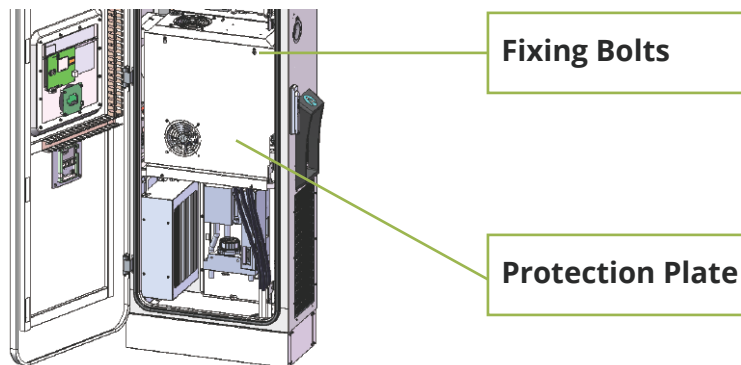
4.3.4

Operation instructions for coolant filling of liquid-cooled dispenser

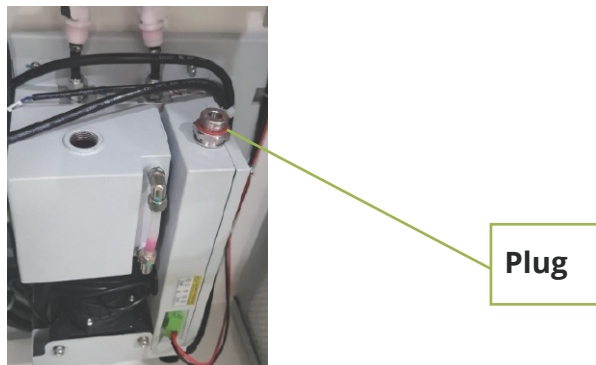
Caution:

- Using non-manufacturer-specified coolant may lead to system leakage or material degradation. Do not mix different types of coolant.

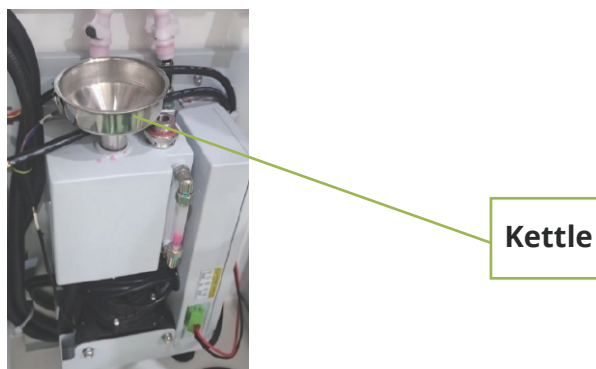
- 1) Open the front door;
- 2) Unscrew the 4 M4 fixing bolts and remove the protection plate.
Disconnect the fan power cord plug in a timely manner during removal to prevent damage to the plug.



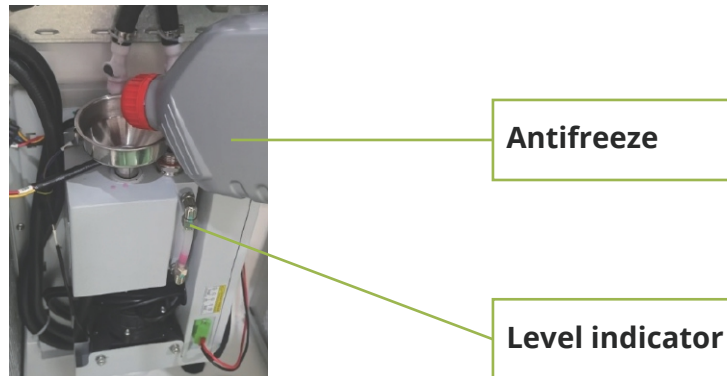
- 3) Remove the plug from the filling and vent port of the cold source water.



- 4) Insert the filling kettle.



5) Pour in antifreeze until the liquid level rises above the middle of the level indicator (do not fill it to the full mark).

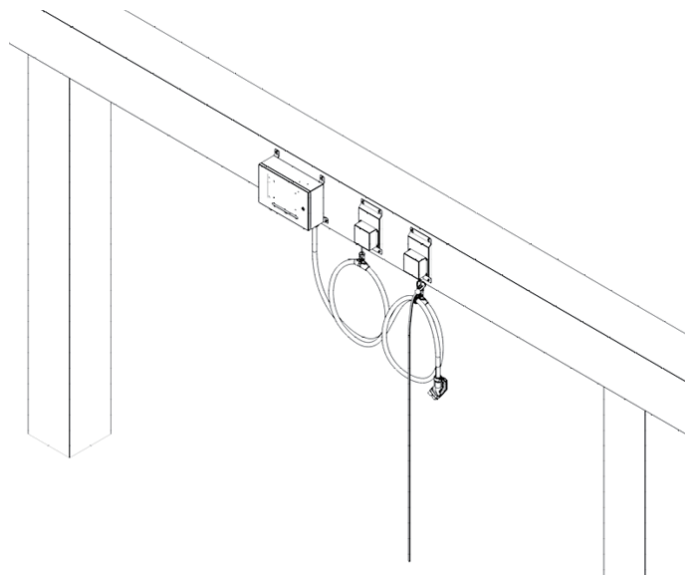


6) After refilling, reinstall all components in reverse order of the above steps.

4.4 Control box

4.4.1 Prepare a standard bracket or suspension bracket

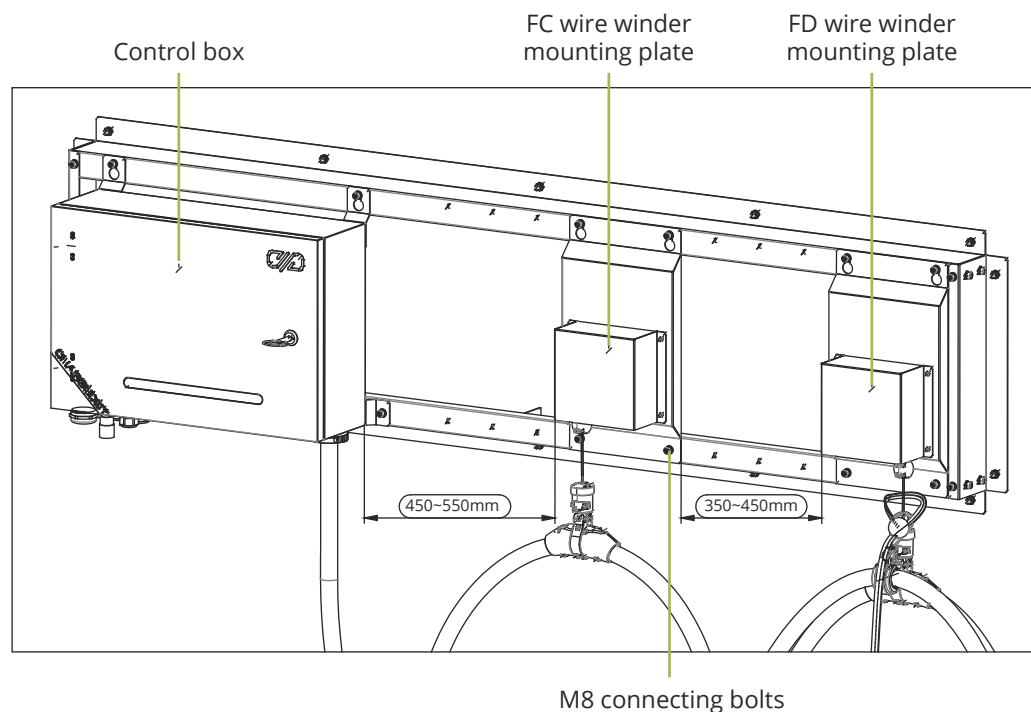
- If the Controlbox is mounted on a metal suspension bracket, an additional mounting bracket is not required. However, it shall be confirmed that holes can be conveniently drilled on the suspension bracket, its dimensions meet the mounting size requirements of the Controlbox and wire winder, and its load capacity can support the weight of the Controlbox, wire winder bracket and charging cable.



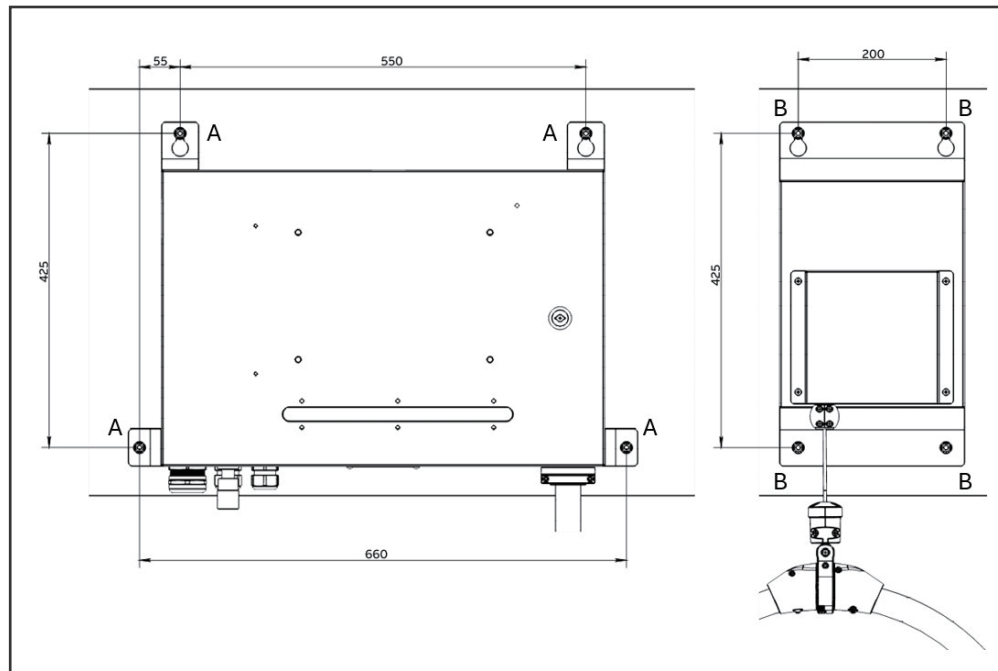
- If wall-mounted, an extra wall bracket shall be installed to facilitate mounting of the Control box and wire winder bracket. It is recommended that the height from the lowest point of the Control box and cable retractor bracket to the ground be within the range of 3.4 m to 3.8 m. The actual installation height shall be adjusted and confirmed according to on-site conditions. You may consult our pre-sales department for communication and confirmation.

The installation position of the wire winder bracket shall meet the following requirements: the horizontal distance between the primary wire winder and the Control box shall be no less than 450 mm, and the horizontal distance between the secondary wire winder and the primary wire winder shall be no less than 350 mm.

The mounting requirements for the Control box and wire winder bracket can be referred to the schematic diagram below:



- Ensure the incoming input cables of the Controlbox can enter the Controlbox cabinet along the suspension bracket or wall.
- During cable routing, reserve a minimum of 400 mm incoming cable length near the cable entry port of the Controlbox in advance.
- The proposal of mounting locating hole:



A Controlbox mounting holes B Wire Winder Bracket mounting holes

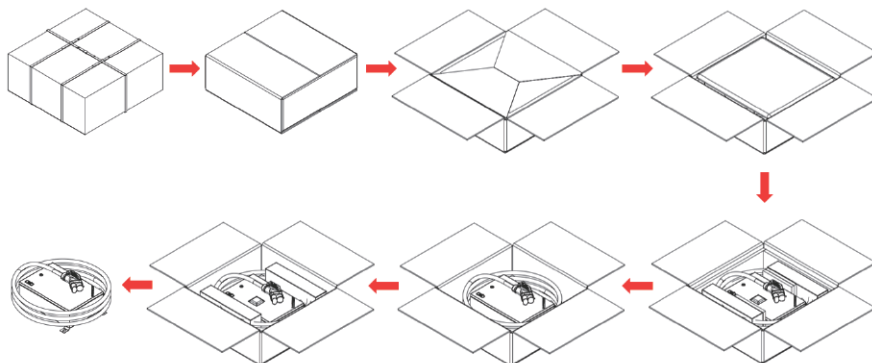
Note:

- Both the Controlbox and wire winder bracket shall be fastened with M8 Combination bolts and nuts through lock mounting.
- The wall-mounted bracket can be custom-fabricated and installed according to the size and spacing requirements of the mounting holes on the cabinet and cable retractor bracket.
- Alternatively, chemical expansion anchors may be used to directly wall-mount the Controlbox and cable retractor bracket.

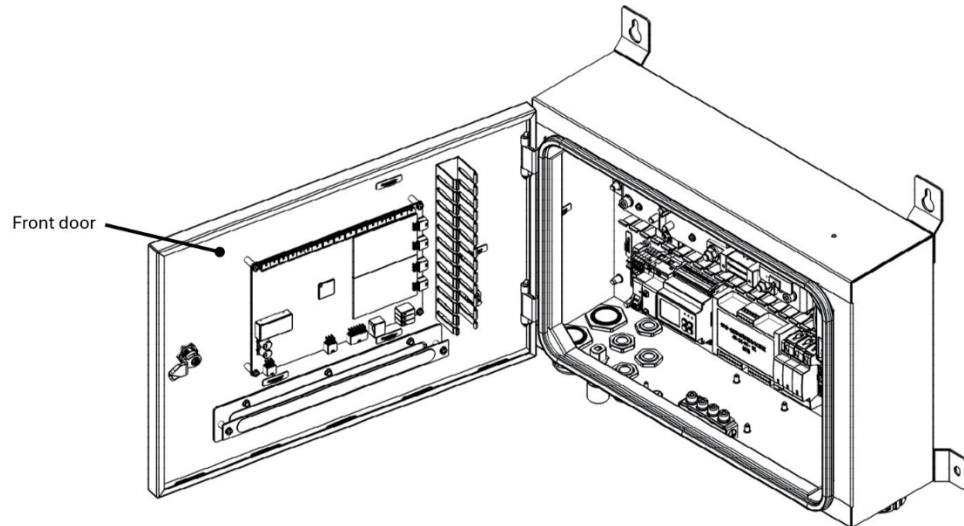
4.4.2

Remove the cabinet from the carton

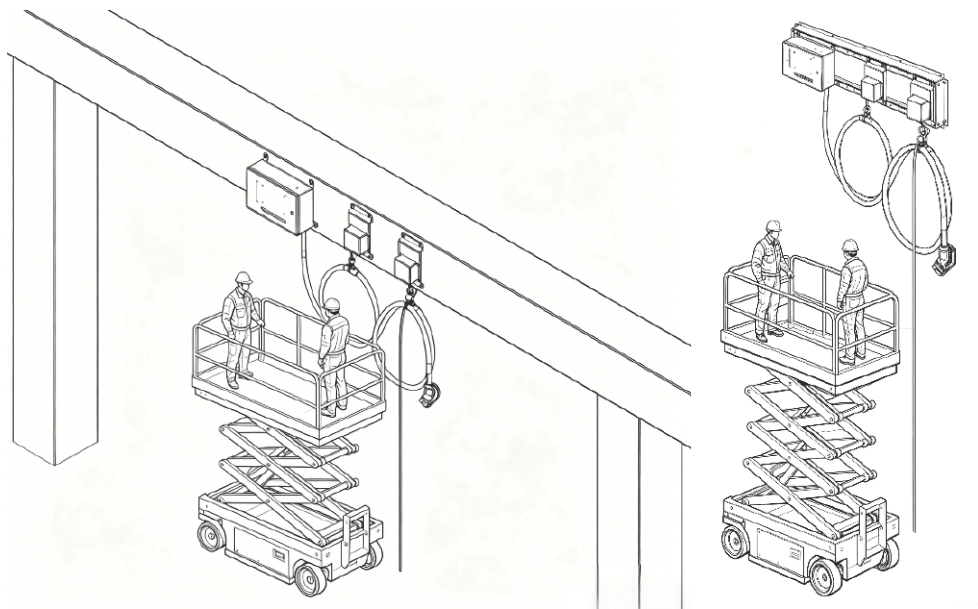
- Remove the binding straps and waterproof bag wrapped around the carton.
- Open the carton and unseal the VCII anti-rust bag.
- Take out the air column bag on the top of the cabinet and the No.2 EPE side cushions on the sides of the cabinet.
- Take out the air column bag containing the wire winder bracket, unpack the air column bag, and separate the primary wire winder from the secondary wire winder.
- Lift the Controlbox together with the charging cable out of the carton and place them on a protected floor surface.



- Open the front door of the Controlbox and check for any fallen components or loose screws.
- Close the door.

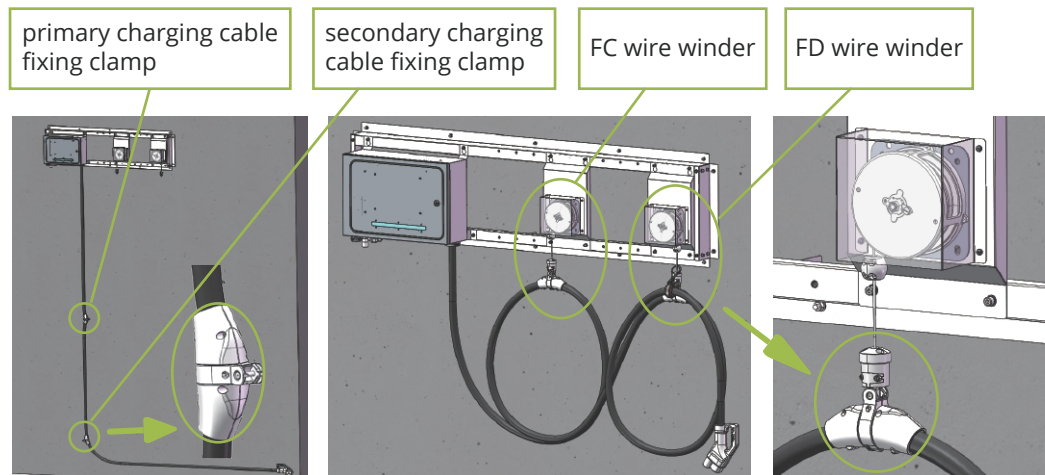


- Place the Controlbox and wire winder bracket onto the aerial work platform.
- Raise the aerial work platform to an appropriate height.
- Mount the Controlbox and wire winder bracket onto the suspension bracket or wall bracket.

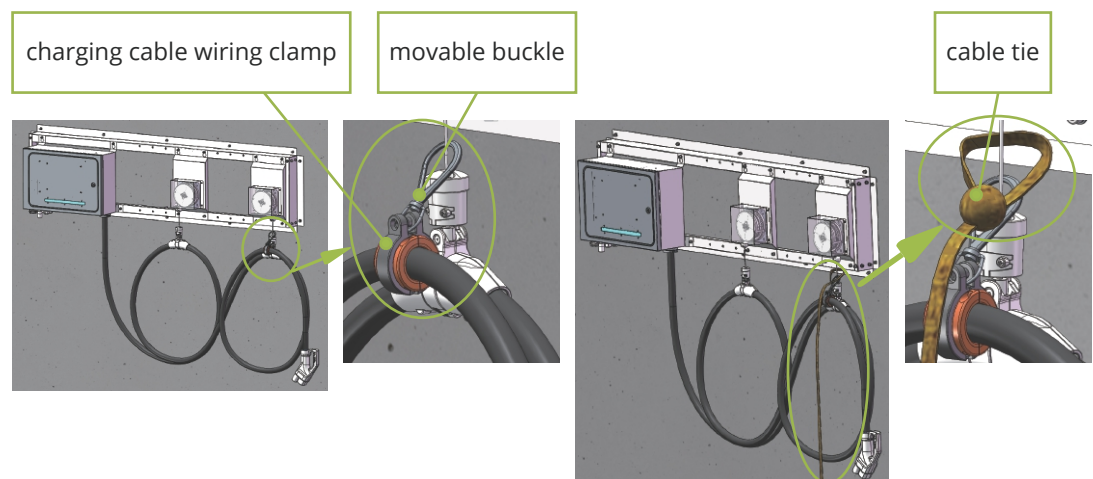


Equipment Installation

- Connect and fix the pre-assembled primary charging cable fixing clamp on the charging cable to the cable clamp fixing head of the FC wire winder, and connect and fix the pre-assembled secondary charging cable fixing clamp to the cable clamp fixing head of the FD wire winder.



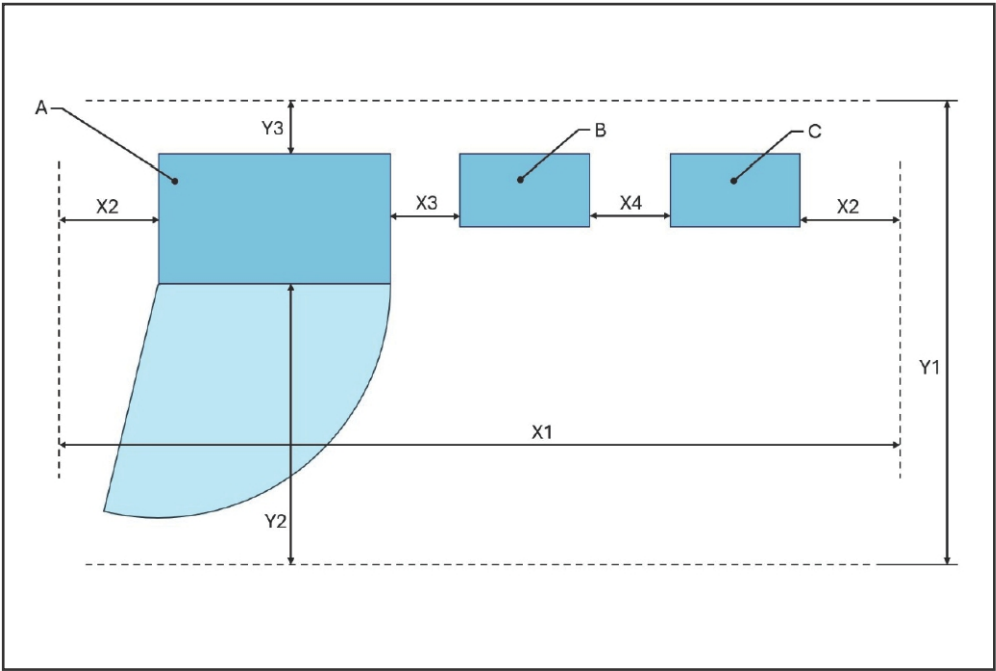
- The pre-assembled charging cable clamp closest to the cable connector is the charging cable wiring clamp. A movable buckle is fixed on the top of the charging cable wiring clamp. Fix the movable buckle to the rope on the top of the cable clamp fixing head of the FD wire winder, and then fix one end of the reserved cable tie to the rope on the top of the cable clamp fixing head of the FD wire winder.



Caution:

- Ensure the mounting spacing between the wire winder bracket and the Control box complies with the requirements specified in Clause 5.3.2.

4.4.3 Space requirements for control box



- A

Cabinet
- B

The primary wire winder
- C

The secondary wire winder
- X1

Total width
- X2

Space to open the front door
- X3

The space between the control box and the primary wire winder
- Y1

Total depth
- Y2

Space to open the front door
- Y3

Space for air outlet
- X4

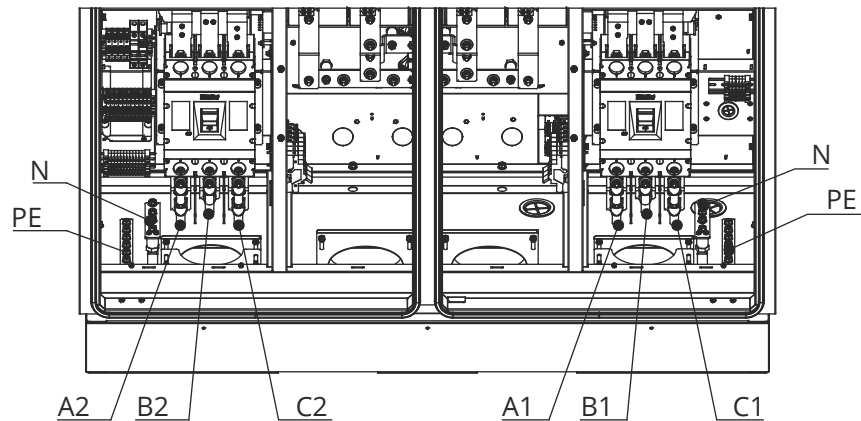
The space between the control box and the secondary wire winder

Parameter	Specification [mm]
X1	2100~2300
X2	100
X3	450~550
X4	350~450
Y1	897
Y2	700
Y3	17 (Mounting bracket height)

5 Cable installation

5.1 AC input cables for power cabinet

Main Input Power Terminals: A(L1), B(L2), C(L3), N, PE



Item	Product	Rated/ Calculate Power (kW)	Cable model	Cable type	Cable (mm ²)	Copper lug	Comment
1	Power cabinet	640	WDZ-YJV-0.6/1kV (Low smoke, halogen-free, flame-retardant cross-linked power cable, copper wire)	A1/B1/C1/ N1/PE1	2*(4*120mm ² +1*70mm ²)	OT-12	First solution
				A2/B2/C2/ N2/PE2	2*(4*120mm ² +1*70mm ²)	OT-12	First solution
2	Power cabinet	640	WDZ-YJV-0.6/1kV (Low smoke, halogen-free, flame-retardant cross-linked power cable, copper wire)	A1/B1/C1/ N1/PE1	4*300mm ² +1*150mm ²	OT-12	Second solution
				A2/B2/C2/ N2/PE2	4*300mm ² +1*150mm ²	OT-12	Second solution
3	Power cabinet	480	WDZ-YJV-0.6/1kV (Low smoke, halogen-free, flame-retardant cross-linked power cable, copper wire)	A1/B1/C1/ N1/PE1	2*(4*70mm ² +1*35mm ²)	OT-12	First solution
				A2/B2/C2/ N2/PE2	2*(4*70mm ² +1*35mm ²)	OT-12	First solution
4	Power cabinet	480	WDZ-YJV-0.6/1kV (Low smoke, halogen-free, flame-retardant cross-linked power cable, copper wire)	A1/B1/C1/ N1/PE1	4*240mm ² +1*120mm ²	OT-12	Second solution
				A2/B2/C2/ N2/PE2	4*240mm ² +1*120mm ²	OT-12	Second solution

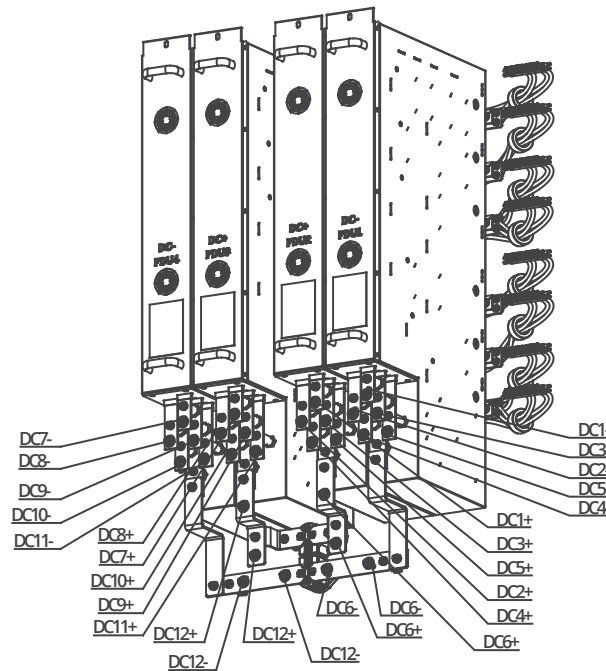
5.2 DC output cables from power cabinet to the charger post

NLC means Non-liquid-cooled the Charger Post

LC means liquid- cooled the Charger Post

Control box means wall-mounted Charger Post

5.2.1 Cables from power cabinet 1V12 pdu to LC&NLC& control box



1V12 PDU			DC outputs of Cabinet to LC&NLC		
Power Cabinet	To	The Charger Post	Cable (mm ²)	Copper lug	Cable model
OUTPUT1	NLC	Gun A	DC1+:70~95mm ² DC1-:70~95mm ² PE: 50mm ²	OT-8	WDZ-YJV-0.6/1kV (Low smoke, halogen-free, flame-retardant cross-linked power cable, copper wire)
OUTPUT7	NLC	Gun B	DC7+:70~95mm ² DC7-:70~95mm ² PE: 50mm ²	OT-8	
OUTPUT2	NLC	Gun A	DC2+:70~95mm ² DC2-:70~95mm ² PE: 50mm ²	OT-8	
OUTPUT8	NLC	Gun B	DC8+:70~95mm ² DC8-:70~95mm ² PE: 50mm ²	OT-8	
OUTPUT3	NLC	Gun A	DC3+:70~95mm ² DC3-:70~95mm ² PE: 50mm ²	OT-8	
OUTPUT9	NLC	Gun B	DC9+:70~95mm ² DC9-:70~95mm ² PE: 50mm ²	OT-8	

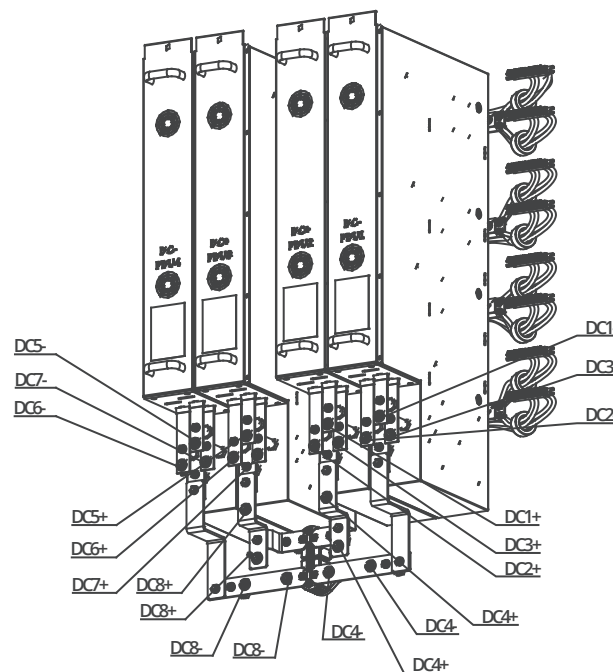
1V12 PDU			DC outputs of Cabinet to LC&NLC		
Power Cabinet	To	The Charger Post	Cable (mm ²)	Copper lug	Cable model
OUTPUT4	NLC	Gun A	DC4+:70~95mm ² DC4-:70~95mm ² PE: 50mm ²	OT-8	WDZ-YJV-0.6/1kV (Low smoke, halogen-free, flame-retardant cross-linked power cable, copper wire)
OUTPUT10	NLC	Gun B	DC10+:70~95mm ² DC10-:70~95mm ² PE: 50mm ²	OT-8	
OUTPUT5	NLC	Gun A	DC5+:70~95mm ² DC5-:70~95mm ² PE: 50mm ²	OT-8	
OUTPUT11	NLC	Gun B	DC11+:70~95mm ² DC11-:70~95mm ² PE: 50mm ²	OT-8	
OUTPUT6	LC	Gun A	DC6+:2*70~95 mm ² DC6-:2*70~95 mm ² PE: 70mm ²	OT-8	
OUTPUT12	LC	Gun A	DC12+:2*70~95 mm ² DC12-:2*70~95 mm ² PE: 70mm ²	OT-8	

5.2.2 Cables from power cabinet 1V10 pdu to LC&NLC& control box

1V10 PDU			DC outputs of Cabinet to LC&NLC		
Power Cabinet	To	The Charger Post	Cable (mm ²)	Copper lug	Cable model
OUTPUT1	NLC	Gun A	DC1+:70~95mm ² DC1-:70~95mm ² PE: 50mm ²	OT-8	WDZ-YJV-0.6/1kV (Low smoke, halogen-free, flame-retardant cross-linked power cable, copper wire)
OUTPUT7	NLC	Gun B	DC7+:70~95mm ² DC7-:70~95mm ² PE: 50mm ²	OT-8	
OUTPUT2	NLC	Gun A	DC2+:70~95mm ² DC2-:70~95mm ² PE: 50mm ²	OT-8	
OUTPUT8	NLC	Gun B	DC8+:70~95mm ² DC8-:70~95mm ² PE: 50mm ²	OT-8	
OUTPUT3	NLC	Gun A	DC3+:70~95mm ² DC3-:70~95mm ² PE: 50mm ²	OT-8	
OUTPUT9	NLC	Gun B	DC9+:70~95mm ² DC9-:70~95mm ² PE: 50mm ²	OT-8	
OUTPUT4	NLC	Gun A	DC4+:70~95mm ² DC4-:70~95mm ² PE: 50mm ²	OT-8	
OUTPUT10	NLC	Gun B	DC10+:70~95mm ² DC10-:70~95mm ² PE: 50mm ²	OT-8	

1V10 PDU**DC outputs of Cabinet to LC&NLC**

Power Cabinet	To	The Charger Post	Cable (mm ²)	Copper lug	Cable model
OUTPUT6	LC	Gun A	DC6+:2*70~95 mm ² DC6-:2*70~95 mm ² PE: 70mm ²	OT-8	WDZ-YJV-0.6/1kV (Low smoke, halogen-free, flame-retardant cross-linked power cable, copper wire)
OUTPUT12	LC	Gun A	DC12+:2*70~95 mm ² DC12-:2*70~95 mm ² PE: 70mm ²	OT-8	

5.2.3**Cables from power cabinet 1V8 pdu to LC&NLC& control box****1V8 PDU****DC outputs of Cabinet to LC&NLC**

Power Cabinet	To	The Charger Post	Cable (mm ²)	Copper lug	Cable model
OUTPUT1	NLC	Gun A	DC1+:70~95mm ² DC1-:70~95mm ² PE: 50mm ²	OT-8	WDZ-YJV-0.6/1kV (Low smoke, halogen-free, flame-retardant cross-linked power cable, copper wire)
OUTPUT5	NLC	Gun B	DC5+:70~95mm ² DC5-:70~95mm ² PE: 50mm ²	OT-8	
OUTPUT2	NLC	Gun A	DC2+:70~95mm ² DC2-:70~95mm ² PE: 50mm ²	OT-8	
OUTPUT6	NLC	Gun B	DC6+:70~95mm ² DC6-:70~95mm ² PE: 50mm ²	OT-8	

1V8 PDU			DC outputs of Cabinet to LC&NLC		
Power Cabinet	To	The Charger Post	Cable (mm ²)	Copper lug	Cable model
OUTPUT3	NLC	Gun A	DC3+:70~95mm ² DC3-:70~95mm ² PE: 50mm ²	OT-8	WDZ-YJV-0.6/1kV (Low smoke, halogen-free, flame-retardant cross-linked power cable, copper wire)
OUTPUT7	NLC	Gun B	DC7+:70~95mm ² DC7-:70~95mm ² PE: 50mm ²	OT-8	
OUTPUT4	LC	Gun A	DC4+:2*70~95 mm ² DC4-:2*70~95 mm ² PE: 70mm ²	OT-8	
OUTPUT8	LC	Gun A	DC8+:2*70~95 mm ² DC8-:2*70~95 mm ² PE: 70mm ²	OT-8	

5.2.4 Cables from power cabinet 1V6 pdu to LC&NLC& control box

1V6 PDU			DC outputs of Cabinet to LC&NLC		
Power Cabinet	To	The Charger Post	Cable (mm ²)	Copper lug	Cable model
OUTPUT1	NLC	Gun A	DC1+:70~95mm ² DC1-:70~95mm ² PE: 50mm ²	OT-8	WDZ-YJV-0.6/1kV (Low smoke, halogen-free, flame-retardant cross-linked power cable, copper wire)
OUTPUT5	NLC	Gun B	DC5+:70~95mm ² DC5-:70~95mm ² PE: 50mm ²	OT-8	
OUTPUT2	NLC	Gun A	DC2+:70~95mm ² DC2-:70~95mm ² PE: 50mm ²	OT-8	
OUTPUT6	NLC	Gun B	DC6+:70~95mm ² DC6-:70~95mm ² PE: 50mm ²	OT-8	
OUTPUT4	LC	Gun A	DC4+:2*70~95 mm ² DC4-:2*70~95 mm ² PE: 70mm ²	OT-8	
OUTPUT8	LC	Gun A	DC8+:2*70~95 mm ² DC8-:2*70~95 mm ² PE: 70mm ²	OT-8	

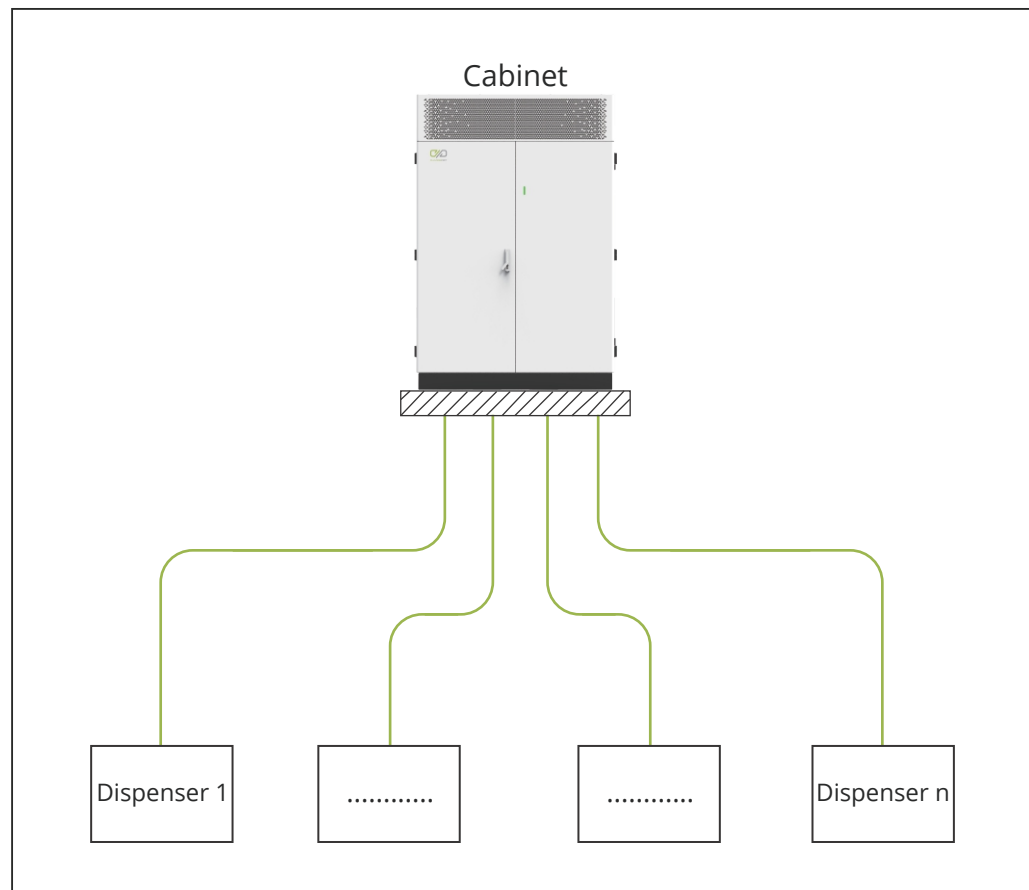
5.3 Control power cables from power cabinet to the charger post

For NLC Charger Post and Control box, each terminal is powered from the 24VDC terminal block of the power cabinet, using $2 \times 2.5\text{mm}^2$ conductors;

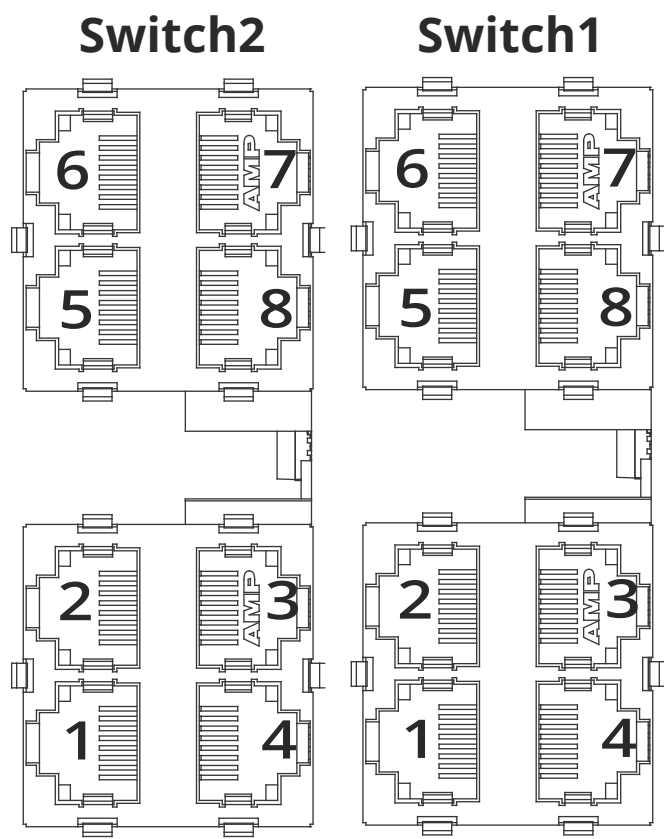
For LC Charger Post, each terminal is powered from the 230V breaker of the power cabinet, using $2 \times 2.5\text{mm}^2$ conductors with a rated voltage requirement of $\geq 450\text{V}$. Both ends of the conductor shall be crimped with E2508 terminals.

5.4 RJ45 network cables from power cabinet to the charger post

Each Charger Post needs to draw a Cat5e SFTP cable from the power cabinet. Both ends of the cable shall be crimped with RJ45 terminals.



Network diagram



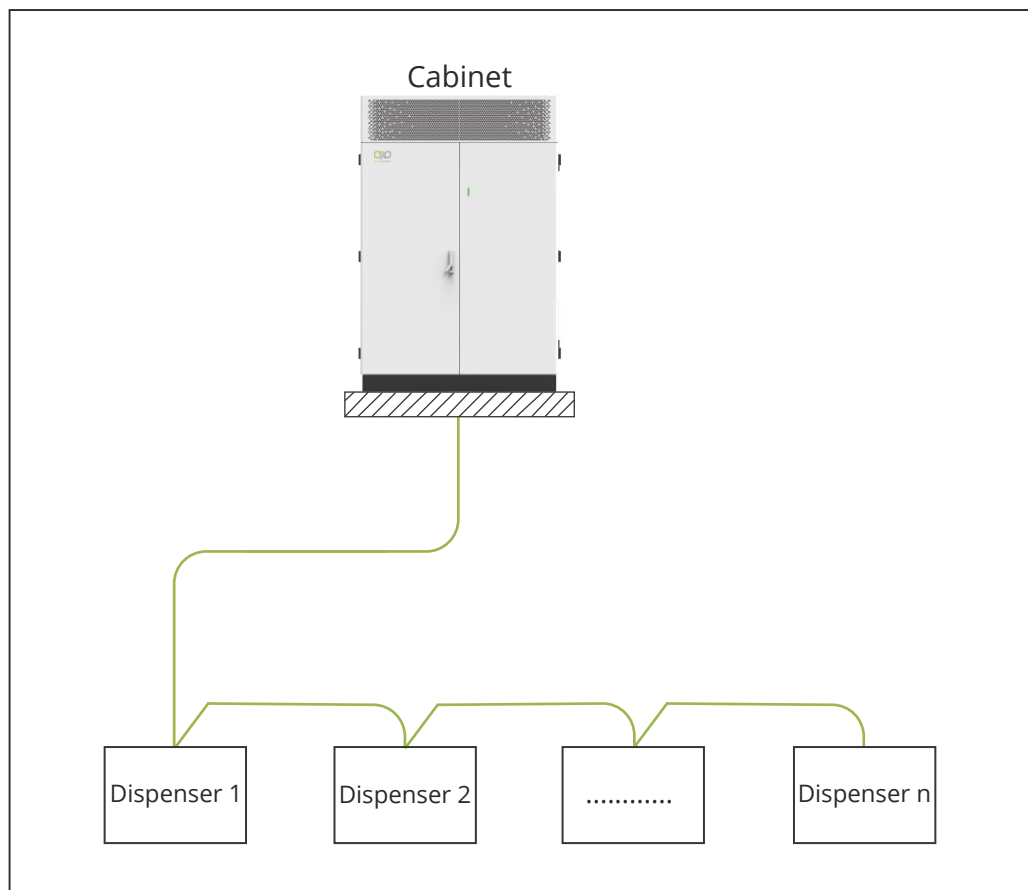
Switch1	Communication terminal	Switch2	Communication terminal
LAN1	PMU	LAN1	Switch1
LAN2	BCU	LAN2	Dispenser6
LAN3	Switch2	LAN3	Dispenser7
LAN4	Dispenser1	LAN4	Dispenser8
LAN5	Dispenser2	LAN5	Dispenser9
LAN6	Dispenser3	LAN6	Dispenser10
LAN7	Dispenser4	LAN7	Dispenser11
LAN8	Dispenser5	LAN8	Dispenser12

5.5

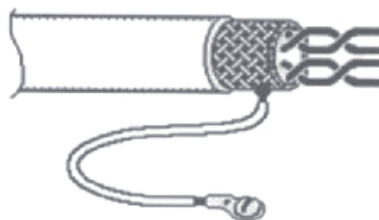
CAN bus cables from power cabinet to the charger post

CAN bus cables shall be routed from the terminal block of the power cabinet using 2×1.5 mm² twisted pair shielded cables, and connected sequentially from one Charger Post to the next. Both ends of each conductor shall be crimped with E1508 cord end terminals. The shielding of each CAN bus shall be grounded at one single point only.

For example:



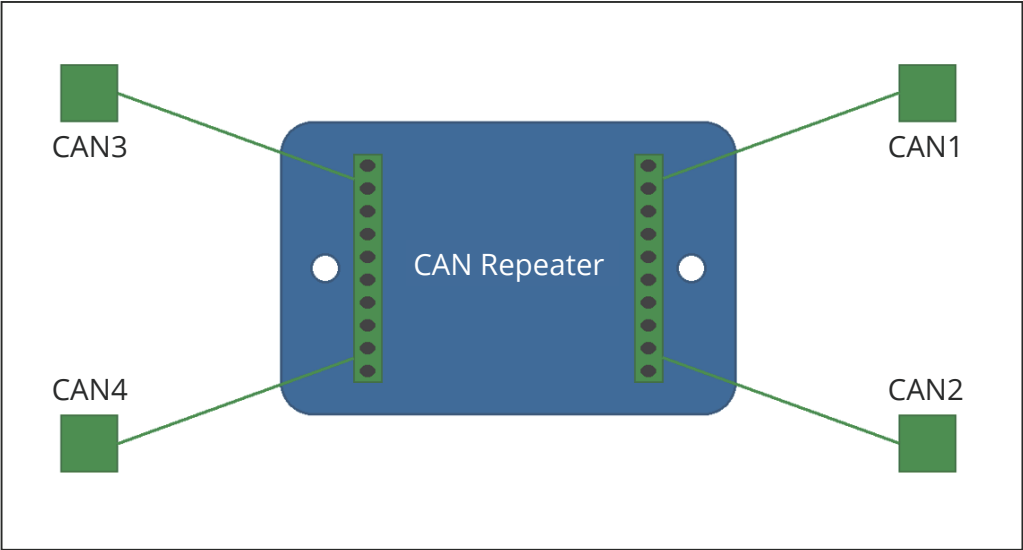
CAN connection diagram



Shielding wire grounding

Descr:

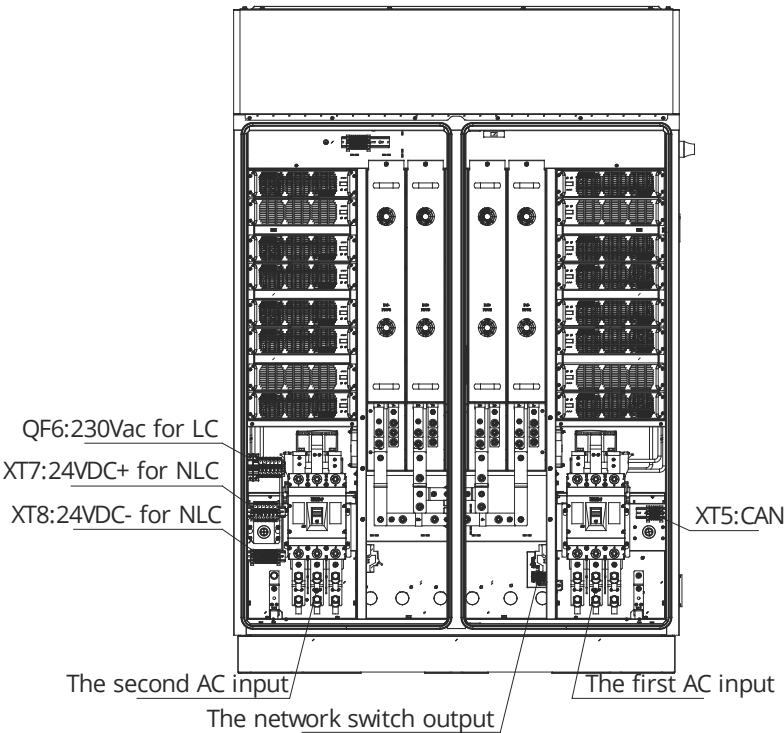
If the length of the CAN cable from cabinet to charger post exceeds 50 meters, CAN Repeater needs to be added in the CAN cable.



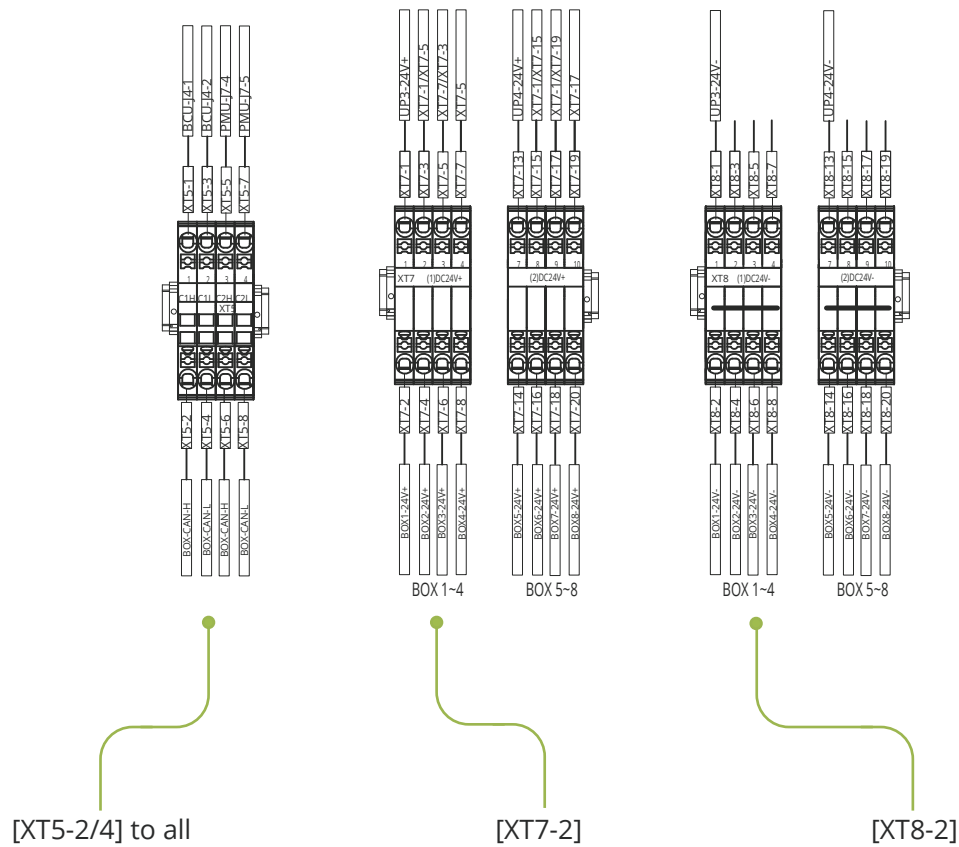
5.6 Wiring locations in the cabinet

5.6.1 The back door of the cabinet

Back Door:

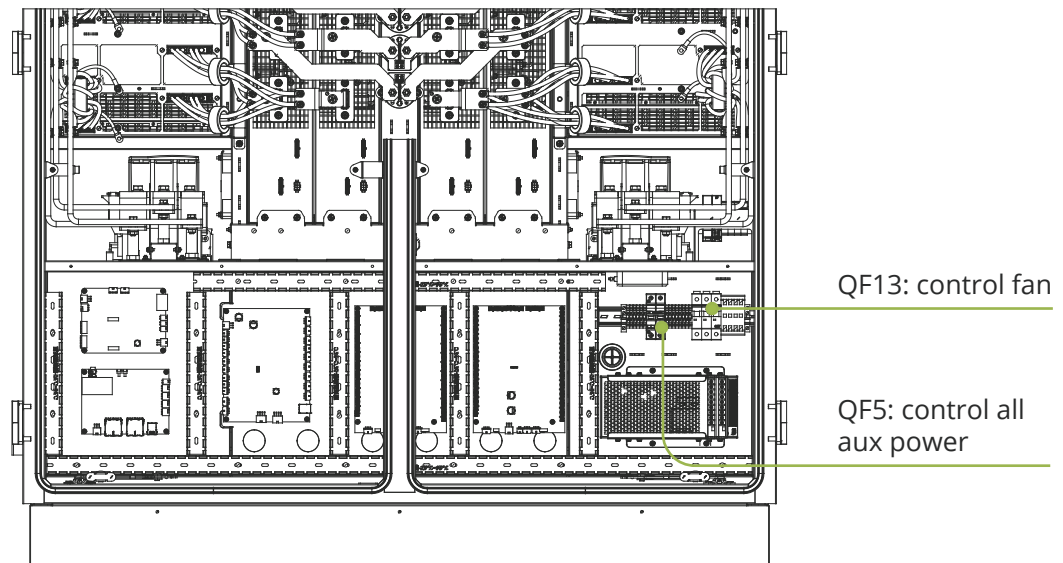


The back door operation schematic diagram



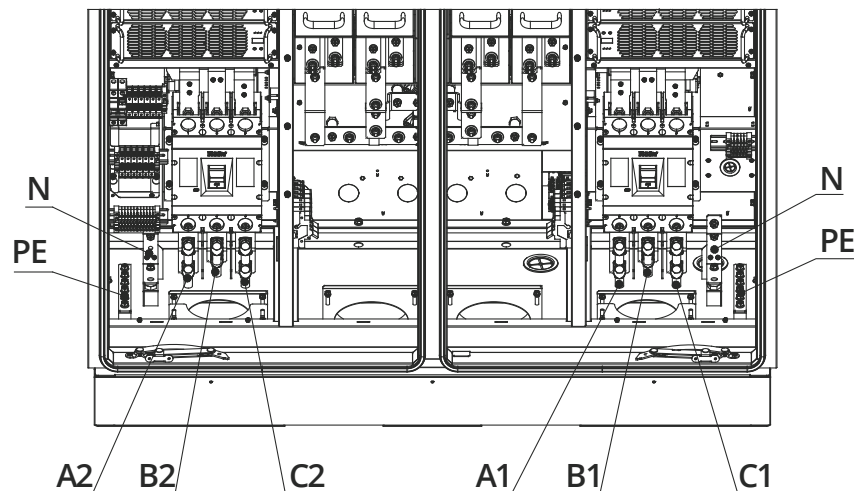
24VDC and CAN connection points description

Front Door:



The front door operation schematic diagram

5.6.2 Main input power terminals: A(L1), B(L2), C(L3), N, PE

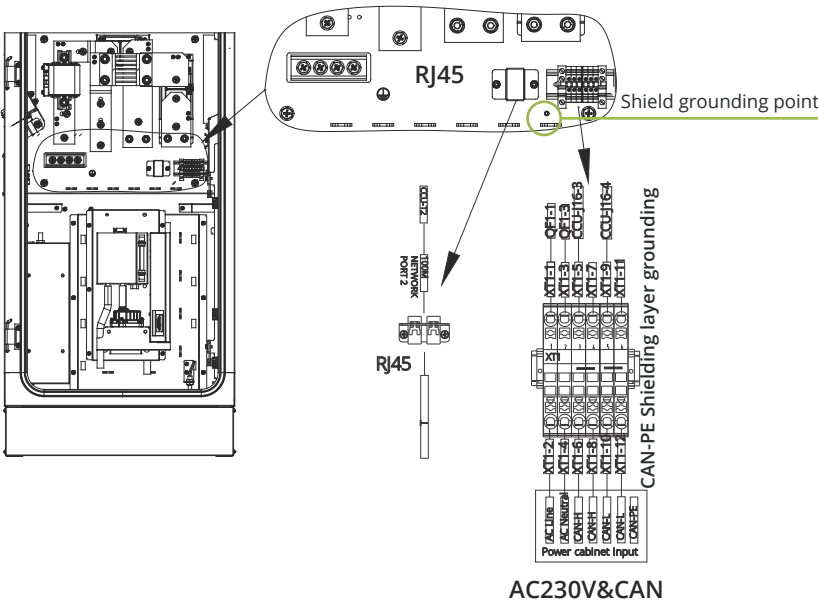


5.7 Wiring locations in the charger post

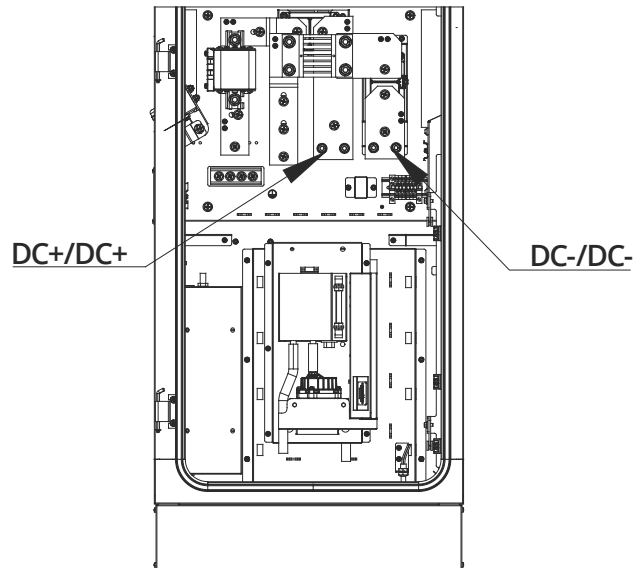
5.7.1 Wiring locations in the LC charger post

Floor standing liquid-cooled terminal control switch
Input Power Terminals: AC 230V& CAN; RJ45 Input Ports

The CAN cable shielding braid shall be terminated with RV2-4 crimp terminals and fastened to the earthing hole on the mounting baseplate for protective grounding.



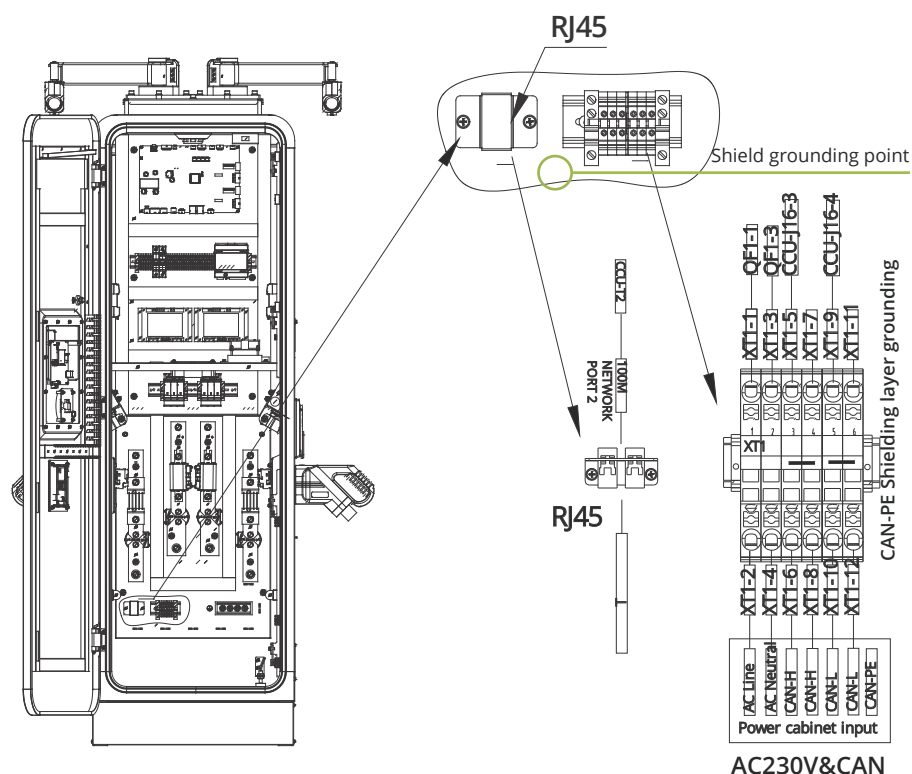
Floor standing liquid-cooled the Charger Post main Input Power
Terminals: DC±、DC±



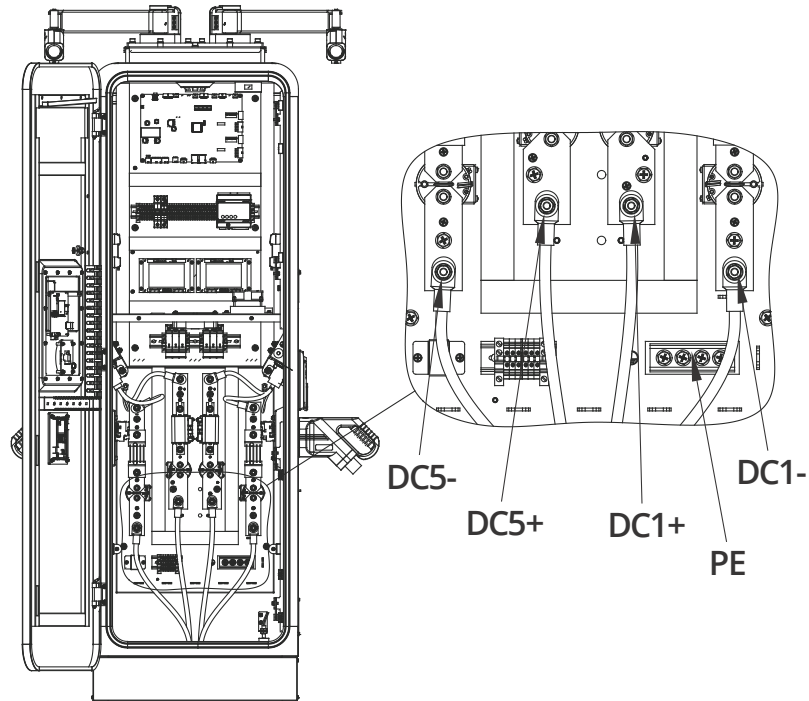
5.7.2 Wiring locations in the NLC charger post

Floor standing air-cooled the Charger Post control switch
AUX Output Power Terminals: DC24V± & CAN; RJ45 Output Ports

The CAN cable shielding braid shall be terminated with RV2-4 crimp terminals and fastened to the earthing hole on the mounting baseplate for protective grounding.



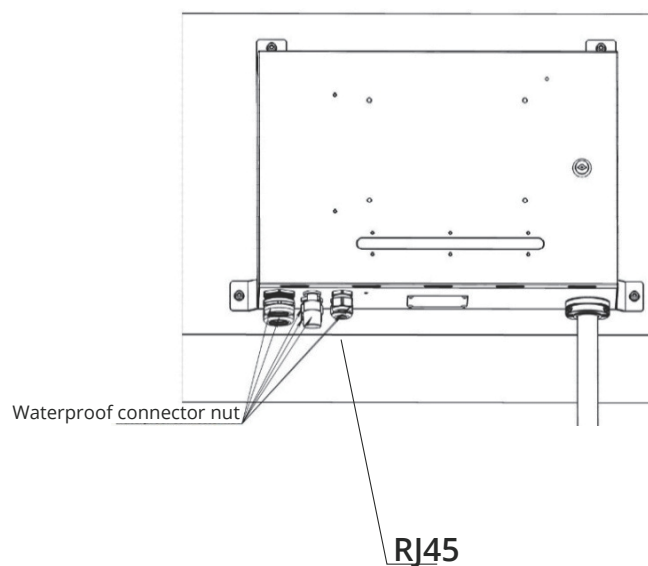
Floor standing air-cooled the Charger Post main Input Power Terminals: DC±

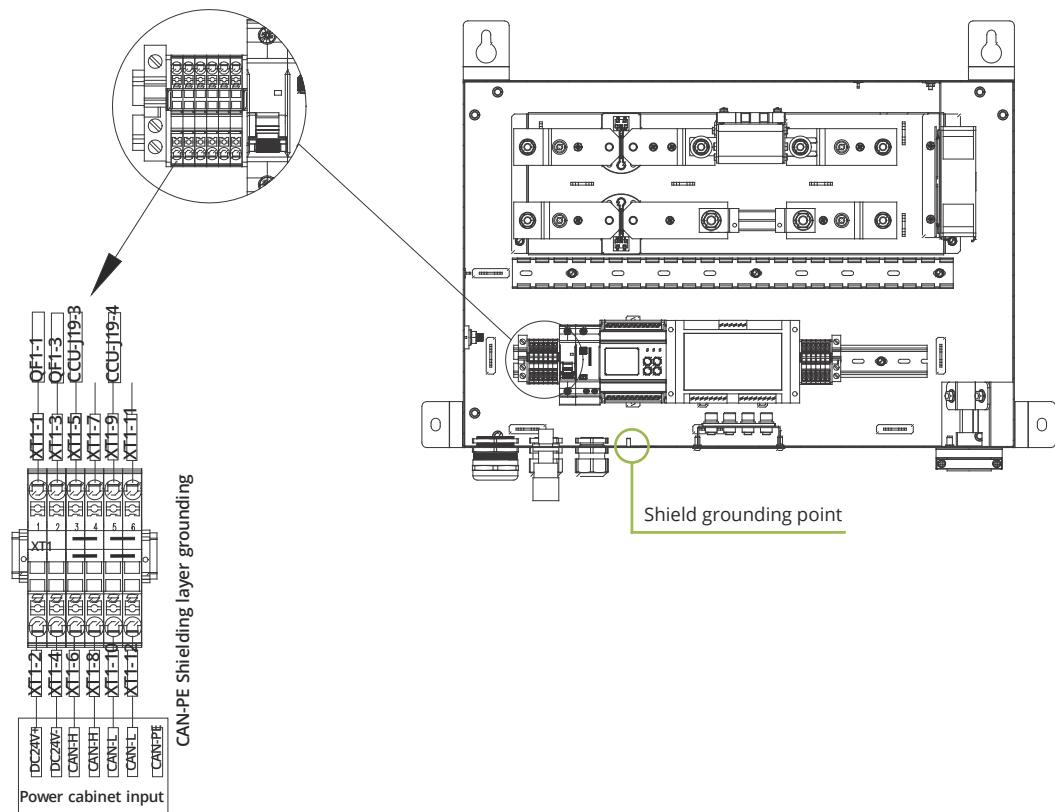


5.7.3 Wiring locations in the control box

Floor standing Charger Post control switch
AUX Output Power Terminals: DC24V± & CAN; RJ45 Output Ports

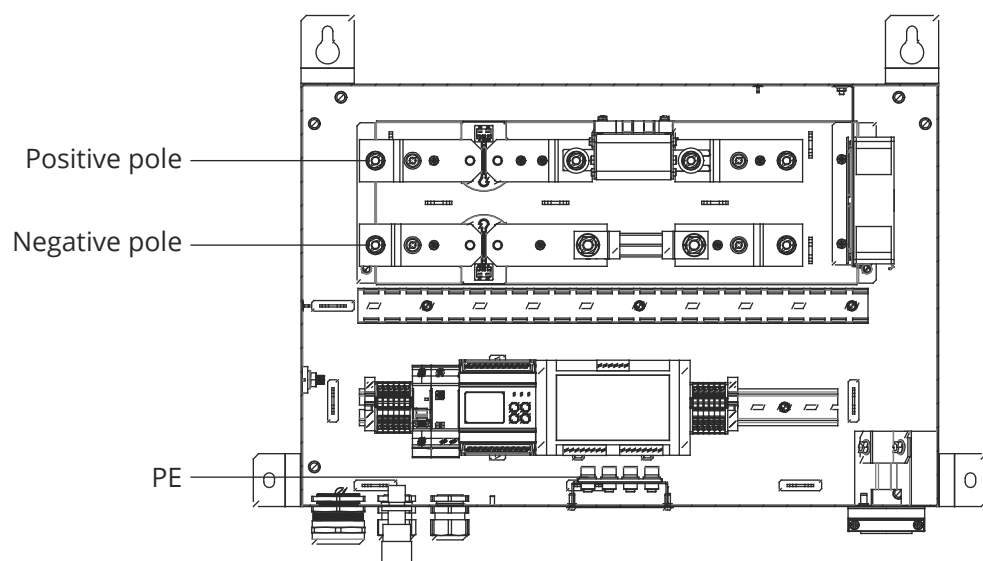
The CAN cable shielding braid shall be terminated with RV2-4 crimp terminals and fastened to the earthing hole on the mounting baseplate for protective grounding.





Connect the auxiliary power cable and CAN cable to the corresponding positions as indicated in the diagram above.

Floor standing air-cooled the Charger Post main Input Power
Terminals: DC±



6 Attachment list

6.1 List of basic tools

Tools	Main Function	Quantity
Multimeter	Check the electrical connections and electrical parameters	1 PC
Electric percussion drill	Drill	1 PC
Impact drill bit (Ø12)	Drill	1 PC
Measuring tape(5m)	Gage length	1 PC
levelling instrument	Horizontal measurement	1 PC
Art knife	Knocked-down packing	1 PC
lineman's pliers	Knocked-down packing	1 PC
Set of cross-head screwdriver	Installation, Wiring, disassembly	1 SET
Set of hex wrench	Installation, disassembly	1 SET
Set of outer hexagon wrench	Installation, Wiring, disassembly	1 SET
Monkey wrench	Installation, Wiring, disassembly	2 PC

6.2 Setting of charging module address

640kW 1V12 HPC CE Cabinet

Module Number	Address	Dial Switch	Module Number	Address	Dial Switch
U9	0x80	↓ ↓ ↓ ↓ ↓	U1	0x80	↑ ↑ ↑ ↑ ↑
U10	0x84	↓ ↓ ↑ ↓ ↓	U2	0x84	↑ ↑ ↓ ↑ ↑
U11	0x88	↓ ↓ ↓ ↑ ↓	U3	0x88	↑ ↓ ↑ ↑ ↑
U12	0x89	↑ ↓ ↓ ↑ ↓	U4	0x89	↑ ↓ ↑ ↑ ↓
U13	0x8C	↓ ↓ ↑ ↑ ↓	U5	0x8C	↑ ↓ ↓ ↑ ↑
U14	0x90	↓ ↓ ↓ ↓ ↑	U6	0x90	↓ ↑ ↑ ↑ ↑
U15	0x94	↓ ↓ ↑ ↓ ↑	U7	0x94	↓ ↑ ↓ ↑ ↑
U16	0x95	↑ ↓ ↑ ↓ ↑	U8	0x95	↓ ↑ ↓ ↑ ↓

480kW 1V12 HPC CE Cabinet

Module Number	Address	Dial Switch	Module Number	Address	Dial Switch
U9	0x80	↓ ↓ ↓ ↓ ↓	U1	0x80	↑ ↑ ↑ ↑ ↑
U10	0x84	↓ ↓ ↑ ↓ ↓	U2	0x84	↑ ↑ ↓ ↑ ↑
U12	0x88	↓ ↓ ↓ ↑ ↓	U4	0x88	↑ ↓ ↑ ↑ ↑
U13	0x8C	↓ ↓ ↑ ↑ ↓	U5	0x8C	↑ ↓ ↓ ↑ ↑
U14	0x90	↓ ↓ ↓ ↓ ↑	U6	0x90	↓ ↑ ↑ ↑ ↑
U16	0x94	↓ ↓ ↑ ↓ ↑	U8	0x94	↓ ↑ ↓ ↑ ↑

640kW 1V8 HPC CE Cabinet

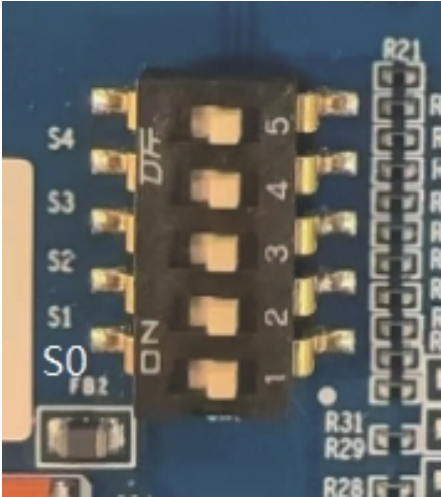
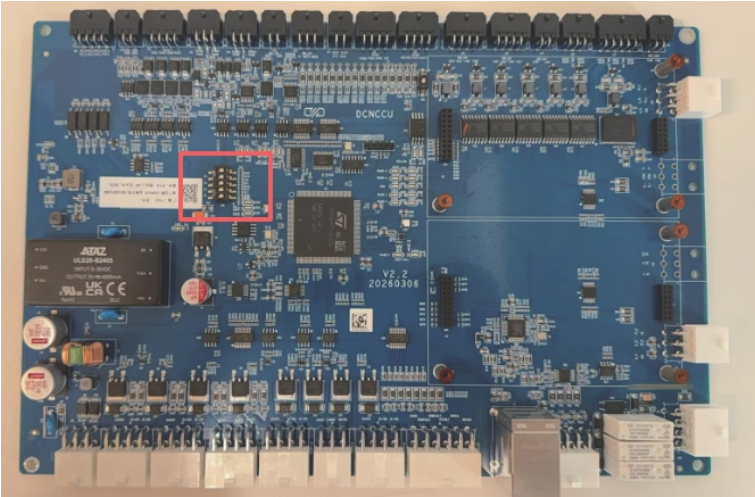
Module Number	Address	Dial Switch	Module Number	Address	Dial Switch
U9	0x80	↓ ↓ ↓ ↓ ↓	U1	0x80	↑ ↑ ↑ ↑ ↑
U10	0x81	↑ ↓ ↓ ↓ ↓	U2	0x81	↑ ↑ ↑ ↑ ↓
U11	0x84	↓ ↓ ↑ ↓ ↓	U3	0x84	↑ ↑ ↓ ↑ ↑
U12	0x85	↑ ↓ ↑ ↓ ↓	U4	0x85	↑ ↑ ↓ ↑ ↓
U13	0x88	↓ ↓ ↓ ↑ ↓	U5	0x88	↑ ↓ ↑ ↑ ↑
U14	0x89	↑ ↓ ↓ ↑ ↓	U6	0x89	↑ ↓ ↑ ↑ ↓
U15	0x8C	↓ ↓ ↑ ↑ ↓	U7	0x8C	↑ ↓ ↓ ↑ ↑
U16	0x8D	↑ ↓ ↑ ↑ ↓	U8	0x8D	↑ ↓ ↓ ↑ ↓

480kW 1V8 HPC CE Cabinet

Module Number	Address	Dial Switch	Module Number	Address	Dial Switch
U9	0x80	↓ ↓ ↓ ↓ ↓	U1	0x80	↑ ↑ ↑ ↑ ↑
U10	0x81	↑ ↓ ↓ ↓ ↓	U2	0x81	↑ ↑ ↑ ↑ ↓
U12	0x84	↓ ↓ ↑ ↓ ↓	U4	0x84	↑ ↑ ↓ ↑ ↑
U13	0x88	↓ ↓ ↓ ↑ ↓	U5	0x88	↑ ↓ ↑ ↑ ↑
U14	0x89	↑ ↓ ↓ ↑ ↓	U6	0x89	↑ ↓ ↑ ↑ ↓
U16	0x8C	↓ ↓ ↑ ↑ ↓	U8	0x8C	↑ ↓ ↓ ↑ ↑

6.3 Setting of Charger Post address

DCNCCU_2.2 Board



S0 Dialing code address-NLC&LC Charger post

NLC			LC		
S4			S4		
S3			S3		
S2			S2		
S1			S1		
S0	1	0	S0	0	1

S4/S3/S2/S1 Dialing code address-Most 16PC Charger posts (Addr 0-15)

Addr0			Addr1			Addr2			Addr3		
S4	1	0	S4	0	1	S4	1	0	S4	0	1
S3	1	0	S3	1	0	S3	0	1	S3	0	1
S2	1	0	S2	1	0	S2	1	0	S2	1	0
S1	1	0	S1	1	0	S1	1	0	S1	1	0
S0			S0			S0			S0		

Addr4			Addr5			Addr6			Addr7		
S4	1	0	S4	0	1	S4	1	0	S4	0	1
S3	1	0	S3	1	0	S3	0	1	S3	0	1
S2	0	1	S2	0	1	S2	0	1	S2	0	1
S1	1	0	S1	1	0	S1	1	0	S1	1	0
S0			S0			S0			S0		

Addr8			Addr9			Addr10			Addr11		
S4	1	0	S4	0	1	S4	1	0	S4	0	1
S3	1	0	S3	1	0	S3	0	1	S3	0	1
S2	1	0	S2	1	0	S2	1	0	S2	1	0
S1	0	1	S1	0	1	S1	0	1	S1	0	1
S0			S0			S0			S0		

Addr12			Addr13			Addr14			Addr15		
S4	1	0	S4	0	1	S4	1	0	S4	0	1
S3	1	0	S3	1	0	S3	0	1	S3	0	1
S2	0	1	S2	0	1	S2	0	1	S2	0	1
S1	0	1	S1	0	1	S1	0	1	S1	0	1
S0			S0			S0			S0		

Example

1v12(0-5-2)-(Control box-NLC-LC)

- Addr:0 — Gun1&Gun2 (NLC1)
- Addr:1 — Gun3&Gun4 (NLC2)
- Addr:2 — Gun5 (LC1)
- Addr:3 — Gun6&Gun7 (NLC3)
- Addr:4 — Gun8 (LC2)
- Addr:5 — Gun9&Gun10 (NLC4)
- Addr:6 — Gun11&Gun12 (NLC5)

Addr0			Addr1			Addr2			Addr3		
S4	1	0	S4	0	1	S4	1	0	S4	0	1
S3	1	0	S3	1	0	S3	0	1	S3	0	1
S2	1	0	S2	1	0	S2	1	0	S2	1	0
S1	1	0	S1	1	0	S1	1	0	S1	1	0
S0	1	0	S0	1	0	S0	0	1	S0	1	0

Addr4			Addr5			Addr6		
S4	1	0	S4	0	1	S4	1	0
S3	1	0	S3	1	0	S3	0	1
S2	0	1	S2	0	1	S2	0	1
S1	1	0	S1	1	0	S1	1	0
S0	0	1	S0	1	0	S0	1	0

Example

- 1v8(0-3-2)-(Control box-NLC-LC)
- Addr:0 — Gun1&Gun2 (NLC1)
 - Addr:1 — Gun3 (LC1)
 - Addr:2 — Gun4&Gun5 (NLC2)
 - Addr:3 — Gun6 (LC2)
 - Addr:4 — Gun7&Gun8 (NLC3)

Addr0			Addr1			Addr2			Addr3		
S4	1	0	S4	0	1	S4	1	0	S4	0	1
S3	1	0	S3	1	0	S3	0	1	S3	0	1
S2	1	0	S2	1	0	S2	1	0	S2	1	0
S1	1	0	S1	1	0	S1	1	0	S1	1	0
S0	1	0	S0	0	1	S0	1	0	S0	0	1

Addr4		
S4	1	0
S3	1	0
S2	0	1
S1	1	0
S0	1	0

