

Atlas Copco Instruction Manual



Instruction Manual
for ZCharger
English

ZCharger 160 CE
ZCharger 240 CE

Atlas Copco

Instruction Manual for fast charger

ZCharger 160 CE

ZCharger 240 CE

Original instructions

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ATLAS COPCO - POWER AND FLOW DIVISION
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Use only authorized parts.

Any damage or malfunction caused by the use of unauthorized parts is not covered by Warranty or Product Liability.

The manufacturer does not accept any liability for any damage arising from modifications, additions or conversions made without the manufacturer's approval in writing.

Neglecting maintenance or making changes to the setup of the machine can result in major hazards, including fire risk.

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This applies in particular to trademarks, model denominations, part numbers and drawings.

Preface

Please read the following instructions carefully before starting to use your fast charger,

It is a solid, safe and reliable machine, built according to the latest technology. Follow the instructions in this booklet and we guarantee you years of troublefree operation.

Always keep the manual available near the machine.

In all correspondence always mention the fast charger type and serial number, shown on the data plate.

The company reserves the right to make changes without prior notice.

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Introduction

Thank you for choosing a product from Atlas Copco. Since 1873, we have been committed to finding new and better ways of fulfilling our customers' needs. Through the years, we have developed innovative and ergonomic product designs that have helped customers improve and rationalize their daily work.

Atlas Copco has a strong global sales and service network, consisting of customer centers and distributors worldwide. Our experts are highly trained professionals with extensive product knowledge and application experience. In all corners of the world, we can offer product support and expertise to ensure that our customers can work at maximum efficiency at all times.

About the safety and operating instructions

The aim of the instructions is to provide you with knowledge of how to use the fast charger in an efficient, safe way. The instructions also give you advice and tell you how to perform regular maintenance on the fast charger.

Before using the fast charger for the first time you must read these instructions carefully and understand all of them.

Safety precautions

To reduce the risk of serious injury or death to yourself or others, read and understand the Safety and operating instruction before installing, operating, repairing, maintaining, or changing accessories on the machine.

Post this Safety and operating instruction at work locations, provide copies to employees, and make sure that everyone reads the Safety and operating instruction before operating or servicing the machine. For professional use only.

In addition, the operator or the operator's employer must assess the specific risks that may be present as a result of each use of the machine.

Safety signal words

The safety signal words Danger, Warning and Caution have the following meanings:

DANGER	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
WARNING	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
CAUTION	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

Personal precautions and qualifications

Only qualified and trained persons may operate or maintain the machine. They must be physically able to handle the bulk, weight, and power of the tool. Always use your common sense and good judgement.

Personal protective equipment

Always use approved protective equipment. Operators and all other persons in the working area must wear protective equipment, including at a minimum:

- Protective helmet
- Hearing protection
- Impact resistant eye protection with side protection
- Respiratory protection when appropriate
- Protective gloves
- Proper protective boots
- Appropriate work overall or similar clothing (not loose-fitting) that covers your arms and legs.

Drugs, alcohol or medication

Drugs, alcohol or medication may impair your judgment and powers of concentration. Poor reactions and incorrect assessments can lead to severe accidents or death.

- Never use the machine when you are tired or under the influence of drugs, alcohol or medication.
- No person who is under the influence of drugs, alcohol or medication may operate the machine.

Safety instructions for use

- Fast charger is an integrated charger that you can use to supply electricity to an EV either outdoor or indoor.
- The ZCharger is a high-power and high-voltage electric power equipment, only qualified professionals are allowed to construction and maintenance.
- Follow local laws and regulations when installing, operating or maintaining the equipment
- Follow the procedures of installation, operation and maintenance and make sure this document and accessories provided by Atlas Copco.
- Follow related safety standards on R&D, production, inspection, certification and filed at local.
- To ensure safety of humans and the equipment, pay attention to the safety symbols on the equipment and all the safety instructions in this document. Otherwise, the equipment may become hidden danger or faulty.
- When operating Atlas Copco equipment has encountered any problems or faults, please consulting Atlas Copco after-service center directly. If unauthorized found third party to maintenance under warranty, Atlas Copco will not be liable.

- Installation conditions far away from fire hazards or other dangerous environment.
- Make sure that the space around the equipment cannot get blocked.
- Connect protective earth wire (PE) before connecting neutral line and phase line.
- After installation or maintenance, ensure that door are lock correct.

Safety instructions for operation

- Before using for the first time you must read this document carefully, make sure that the equipment is installed and commissioned according to the instructions in the installation manual.
- Without Atlas Copco permission, do not unauthorized modifications to the product or removal of the product. Atlas Copco will not be liable for any consequence caused by the violation of the safety operation regulations and design, production, and usage standards.
- Do not touch the charging connector or vehicle inlet, keep it dry and clean.
- Do not use this product if the power cord or connector is frayed, has broken insulation or shows any other signs of damage.
- In case of any abnormal condition, press the emergency button immediately, which will turn off all input and output to ensure safety.
- Make sure that no foreign bodies residues in EV charging connector or vehicle inlet.
- Do not connect or disconnect power cables with power on. When maintenance, turn off the power switch, ensure that electrical connections are correct, and putting warning board.
- Pay attention to the copper wire carries dangerous voltage of equipment, even if all circuit breakers of the charger are disconnected.

Maintenance instructions

- This product is high-power and high-voltage power equipment. Construction and maintenance personnel shall work with the operation certificate.
- In the maintenance of the equipment, the relevant construction standards and safety regulations in different places and states shall be strictly followed.
- The equipment is developed, manufactured, checked, filed and certified in accordance with the relevant safety standards. Therefore, the product will not cause property damage or endanger human health under normal circumstances if the instructions for the specified use and technical instructions for safety are followed.
- The instructions contained in this manual must be strictly observed. Otherwise, there may be a safety hazard of failure of the safety device. Although this manual explains the relevant safety instructions, note that safety specifications and accident prevention specifications for the corresponding usage must be complied with.
- In case of any problem failures in the process of use, the user shall directly consult the supplier. In the warranty period, if he/she asks a third party or non-professional to maintain without organization any safety consequences shall be borne by the user.
- Please strictly comply with the specifications formulated in this manual or by the station for regular and correct maintenance of the charger.
- Each maintenance shall be recorded, components with a failure shall be identified and the failure description shall be prepared, and they shall be

sent back to the manufacturer for analysis. Do not discard carelessly.

- Do not change the original design of the product without authorization during maintenance.
- Maintenance personnel shall properly wear protective equipment before entering the field to avoid personal electric shock and equipment damage.
- After maintenance, close and lock the door properly so that the insulation of the equipment will not be damaged due to water ingress or other foreign matters.
- There is no lamp inside the charger. The installation and maintenance personnel must bring their own lighting equipments.
- Charger is high-power and high-current equipment with a fatal dangerous voltage. Do not repair and maintain it when it is live.
- Even when all the switches of the charger have been disconnected, the copper bar of the charging line still has a dangerous voltage. During the maintenance of the equipment, it is necessary to turn off the upper switch of the charger, hang the repair sign, and check whether there is a dangerous voltage with an instrument to ensure that the charger is completely disconnected from the grid.
- It is strictly forbidden to do the maintenance work in a bad weather such as thunderstorms.

Storage precautions

- Keep the machine and tools in a safe place, out of the reach of children and locked up.

Disclaimer

Atlas Copco shall not be liable for any consequence caused by any of the following events:

- Warranty expiration of the warranty service.
- Failure to follow the operation instructions and safety precautions in this document resulting equipment malfunction, component damage, personal injuries, or property damage are beyond the warranty scope.
- Installation or use in environments which are not specified in related international standards.
- Incorrect transportation, removal, storage, installation or use.
- Unauthorized modifications to the product nameplate, serial number or product appearance.
- Storage conditions that do not meet the requirements specified in this document, unused products should be stored in packing cases and placed in a dry.
- Ensure that the area required for heat dissipation, Otherwise, the equipment may become faulty this resulting equipment malfunction, component damage, personal injuries or property damage are beyond the warranty scope.
- Installation or use by unqualified personnel.

- This document content here is inductive only. If there is inconsistency between the content and the actual product, the actual product shall govern.




Electric shock hazard.


Before connecting the power supply, ensure that electrical connections are correct. Do not connect or disconnect power cables with power on.




Personnel who will operate the equipment, including operators, trained personnel and professionals should possess the local national required qualifications in special operations such as high-voltage operations, working at heights and operations of special equipment.

Special symbols

Danger

<ul style="list-style-type: none">• Because some of the parts of the power system are at a high voltage during operations, the direct or indirect contacting with these components, such as contacting through wet things, can be fatal.• The high-voltage line construction operation may cause fire or electric shock. The connecting area and the passing area of the AC cable must comply with the national regulations and specifications. Only those who have the ability to work at a high DC and high AC voltage can install and maintain the DC charger.• It is strictly forbidden to do the on-site maintenance work in a bad weather.• It is strictly forbidden to maintain when the equipment is live.

Warning

<ul style="list-style-type: none">• Special tools must be used in all kinds of operations at high DC and AC voltages.• When handling equipment by hands wear protective gloves to prevent injuries caused by sharp objects.

Caution

<ul style="list-style-type: none">• Please read the maintenance instructions carefully before maintenance.• Before maintenance, please wear personal protective tools to avoid injuries in the process. After maintenance, do not leave tools in the equipment to avoid the short circuit.• The maintenance shall follow the local rules and regulations and meet the requirements of the station.

Overview

To reduce the risk of serious injury or death to yourself or others, read the **Safety precautions** section found on the previous pages of this manual before operating the machine.

Function

This charger is an integrated fast charger that features high efficiency and flexible configured. It supports the CCS2 charging at the same time.

The charger used in centralized fast charging station, It adopts 20kW charging power module of Atlas Copco, and meet the charging demand of larger capacity and high endurance electric on the market.

Product characteristics

- More flexible power distribution, the dual connector model can meet the rapid charging of two vehicles at the same time.
- The constant current and constant power charging methods have the advantages of high charging efficiency, simple operation and reliable performance.
- Ultra wide output voltage range, the highest output voltage can reach DC100V. It can not only meet the low-voltage charging of small cars, but also meet the charging requirements of buses and high voltage vehicles.
- With overload, short circuit, leakage, lightning protection, overcharge, over voltage, under voltage, reverse connection, over temperature and other multiple protection functions.

- The intelligent standby mode can effectively reduce the operation cost of customers in the whole project life cycle, and improve the return rate of station charging.

The cabinet shell is made of stainless steel with protection grade of IP55, which can be applied to various outdoor environments.

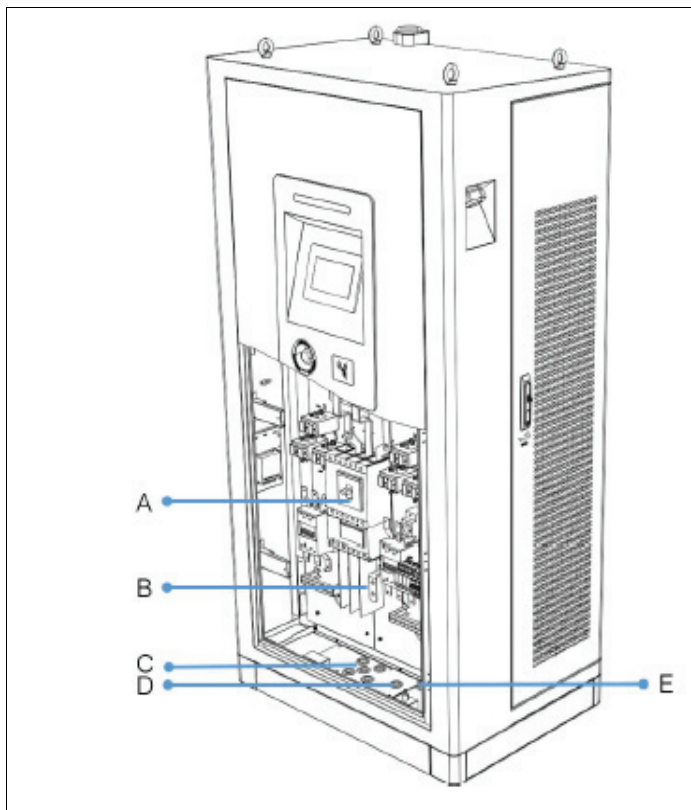
Product views

Outside view of the Atlas Copco DC fast charger



Reference	Descriptions
A	Status LED
B	Human machine interface
C	Emergency button
D	Door Handle/ Lock
E	Charging connector
F	Digital input receiver
G	Eye bolts for lifting
H	Pay card reader
I	Air outlet

Inside view of the Atlas Copco DC fast charger

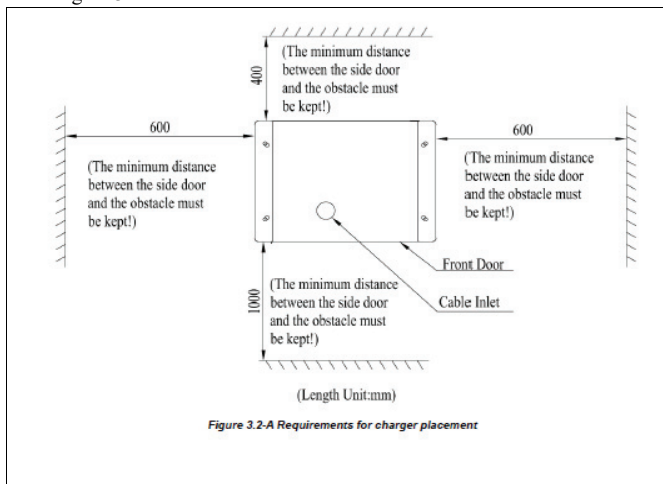


Reference	Descriptions
A	Main circuit breaker
B	AC incoming copper bar
C	Inlet hole
D	Reserved signal line hole

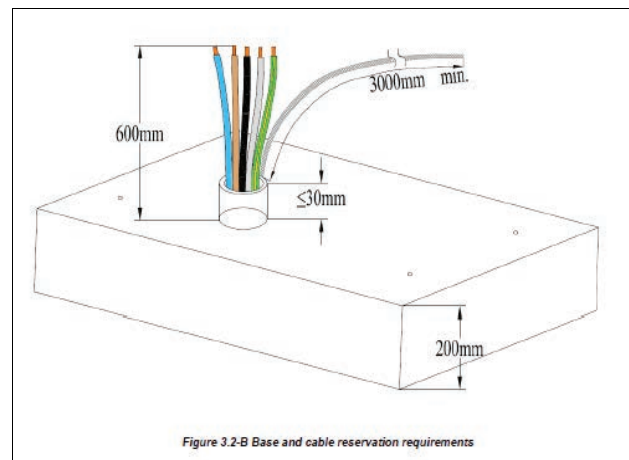
Installation

Equipment installation requirements

1. The charger is opened in front, left and right, and the connectors are used from both sides. Space should be reserved around. See Figure 3.2-A for the reserved size.



2. Installation on the foundation of channel steel or concrete; The cable shall be embedded in advance, the reserved length of Ethernet cable should not be less than 3000 mm; the length of power cable reserved shall be $600\text{ mm} \pm 20\text{ mm}$, and the protruding of the base through which 5 wires pass shall be less than 30 mm, as shown in Figure 3.2-B for details.
3. The height of the installation foundation is recommended to be $200\text{ mm} \pm 20\text{ mm}$, and the vertical inclination of the installation shall not exceed 5 degree. See Figure 3.2-B for details.



4. Install 4 stainless steel M12* 80 mm expansion bolts between the base and the cabinet. Note that the bolts need to be equipped with M12 stainless steel flat gasket.

Construction of distribution cables

Layout requirements of distribution cables

1. The input cable of the system is introduced from the inlet hole at the bottom of the charger, and the cable shall be laid through the cable trench.
2. The AC cable adopts copper core wire, and the cross-sectional area of the cable shall adapt to the load.
3. The outdoor power cable shall be laid according to the power specification. The power cable and the signal cable must be separated, and the signal cable should be put through the tube separately to avoid the pressure loss and interference of the communication signal.
4. The cable shall not be laid in the area easily damaged by mechanical damage, corrosive medium emission, humidity, strong magnetic field and strong electrostatic field interference. If necessary, please take corresponding protection or shielding measures.
5. The AC input cable starts from the user's distribution switch and connects to the copper bar of the charger's inlet cable switch. Protection devices shall be provided at the user's power distribution.
6. The color of AC input cable is brown (L1), black (L2), gray (L3), blue (n), yellow green (PE). If the input cable has only one color, it is necessary to paste cable number identification (or tube with mark).

Process requirements of distribution cables

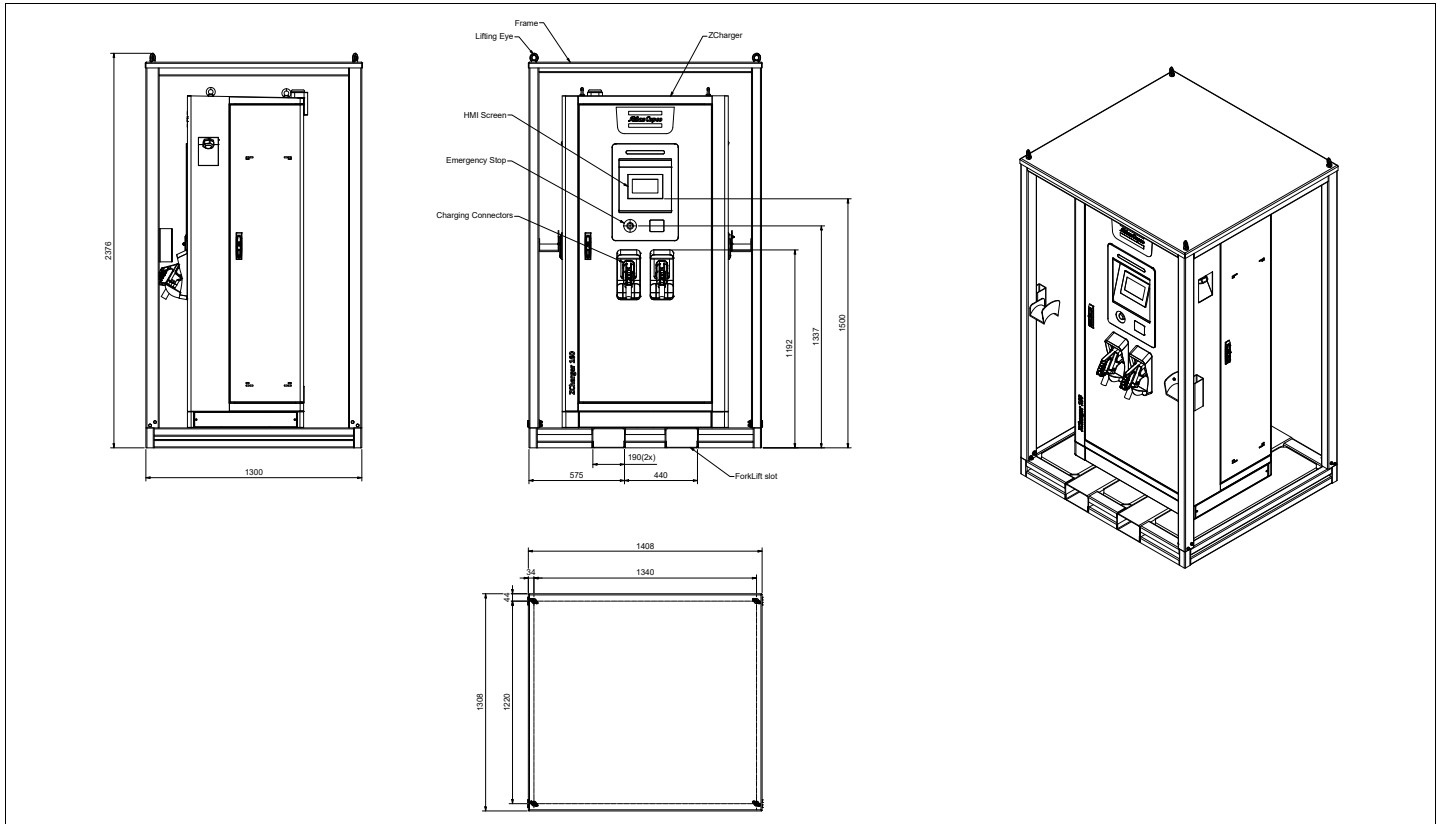
1. Cable laying shall be free from external force, distortion and damage of insulation layer.
2. It is strictly forbidden to twist, flatten, break the protective layer seriously.
3. The protective pipe shall be cleaned before the cable passes through the pipe, and the wire shall not be damaged.
4. The cable arrangement shall be tidy. The binding should be neat and should not be crossed.
5. Sufficient allowance (no less than 600 mm) shall be reserved for each wire of the cable, and the bending degree shall be consistent.
6. Crimp the terminal of the cable head, and there should be no gap on the penetration surface of the terminal after crimping.
7. When pressing the lug of inlet cable, the heat shrinkable tube should be set between the cable and the lug, and the inside and outside of the tube should be smooth without damage and crack. Before setting the heat shrinkable tube, the sundries on the cable shall be removed, and there shall be no burr and iron filings on the surface to prevent damage to the tube. The color of the tube shall be in accordance with the phase sequence. When the tube is heat shrinkable, the flame should be avoided to spray on the inside of the cabinet to prevent burning the internal components and cables of the cabinet. The appearance of heat shrinkable casing should be flat, smooth, uniform shrinkage, no dust and crack.
8. Attention should be paid to the wiring sequence when pressing RJ45 connector for Ethernet cable. Check whether the pressing is qualified after pressing.

Cable specifications for AC input

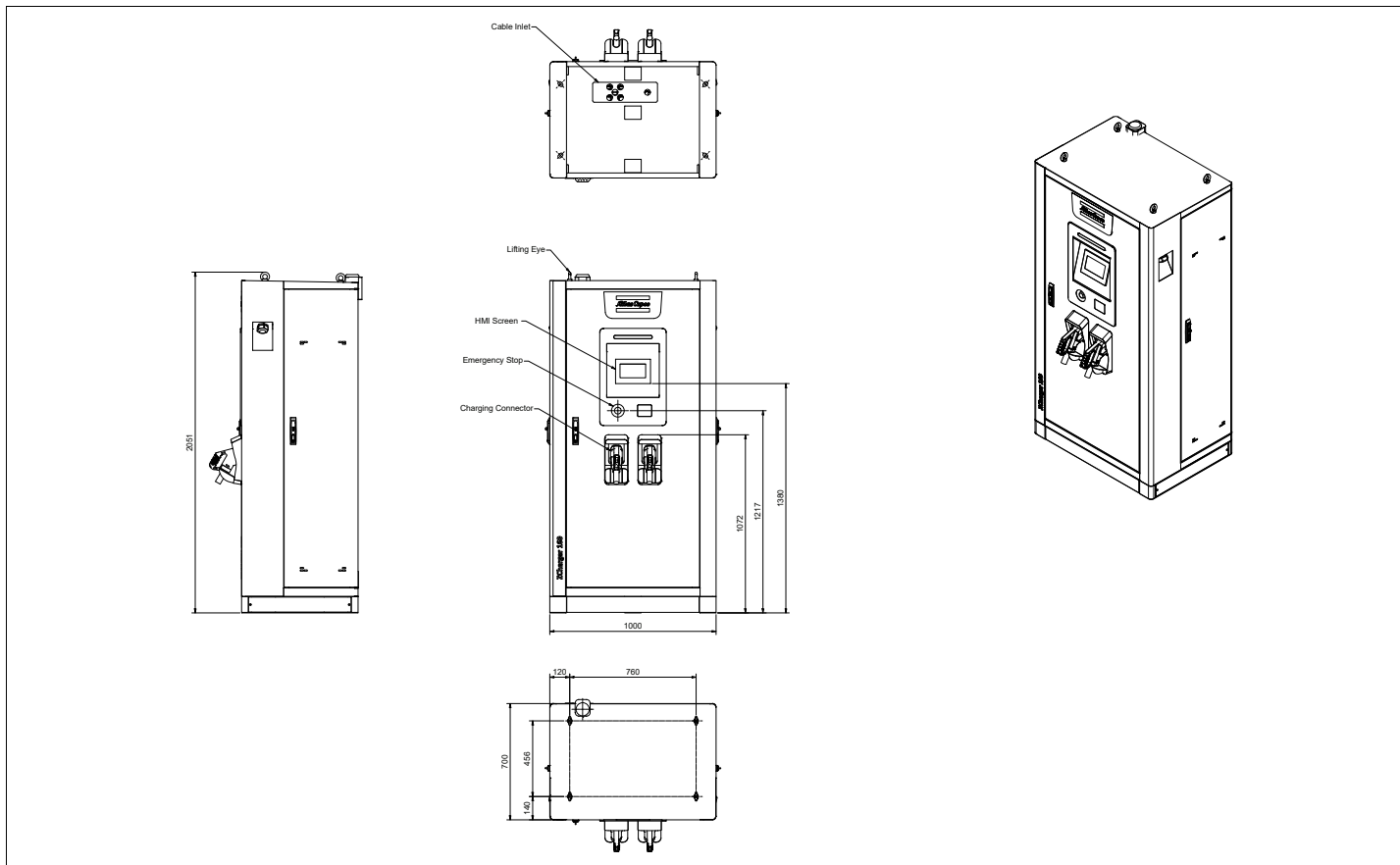
Capacity	Cable specification (YMcKas mb)	Capacity of superior distribution switch (A)	Screw specification (diameter: mm)	Cable material
160kW	4*150 mm ² + 150 mm ²	400	L1/L2/L3/N/PE: M12	L1/L2/L3/N/PE: DT150-12
240kW	4*300 mm ² + 1*120 mm ²	630	L1/L2/L3/N: M16 PE: M12	L1/L2/L3/N: DT240-16 PE: DT120-12

Dimensional drawing

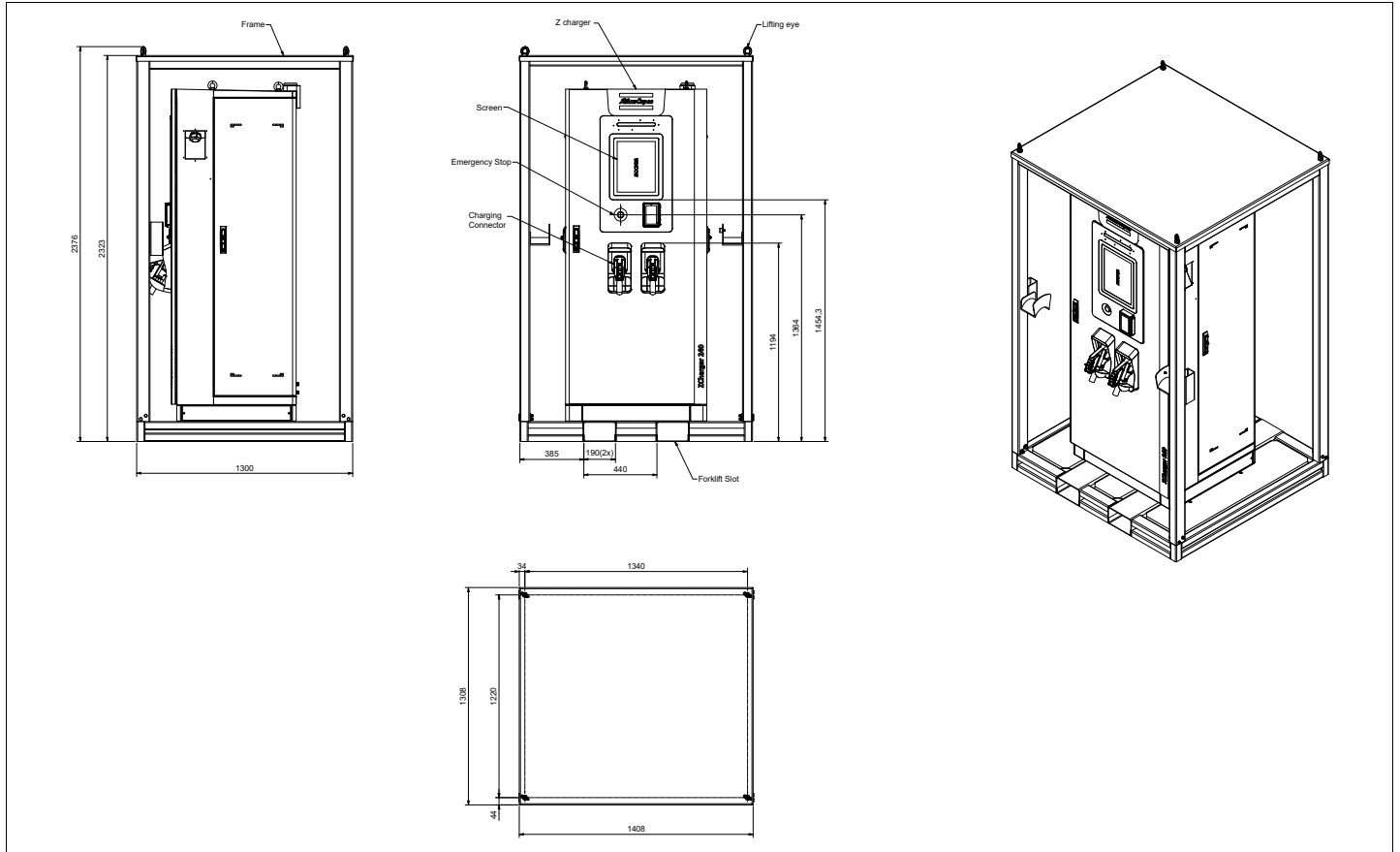
ZCharger 160 with frame (9829372790-01-01)



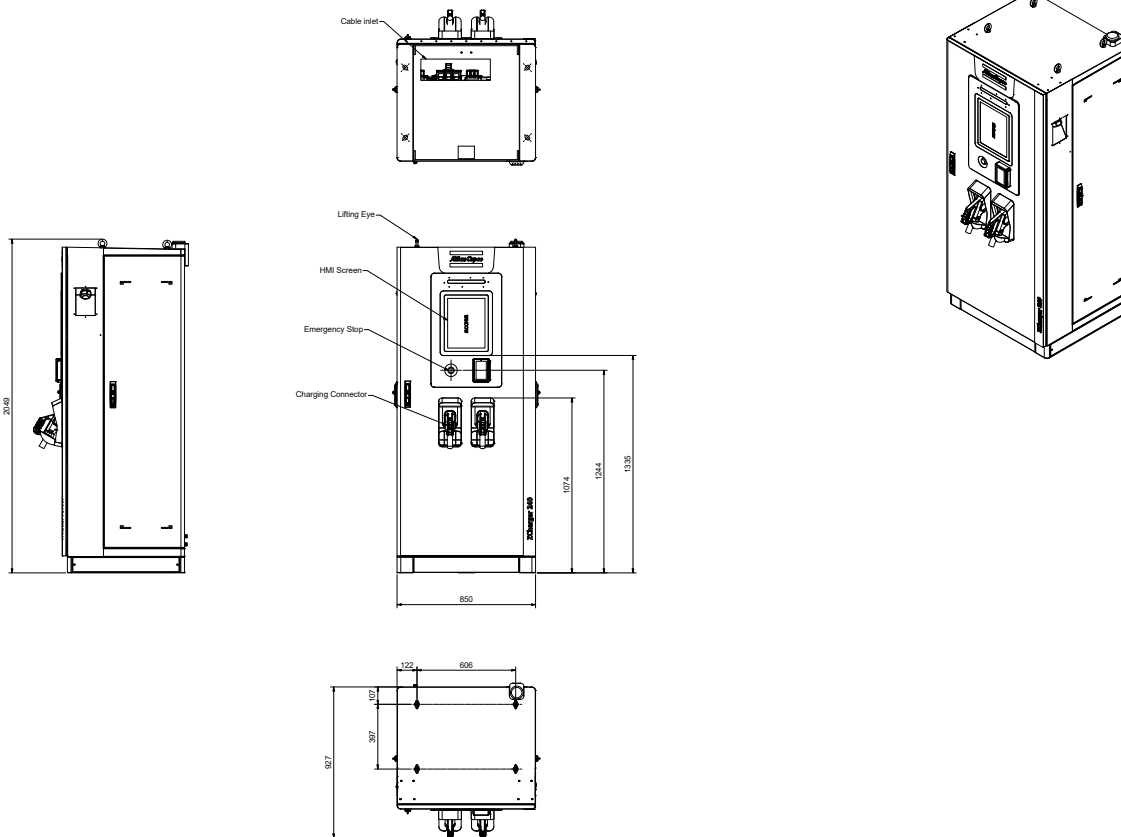
ZCharger 160 (9829372790-01-02)



ZCharger 240 with frame (9829372960-01-01)

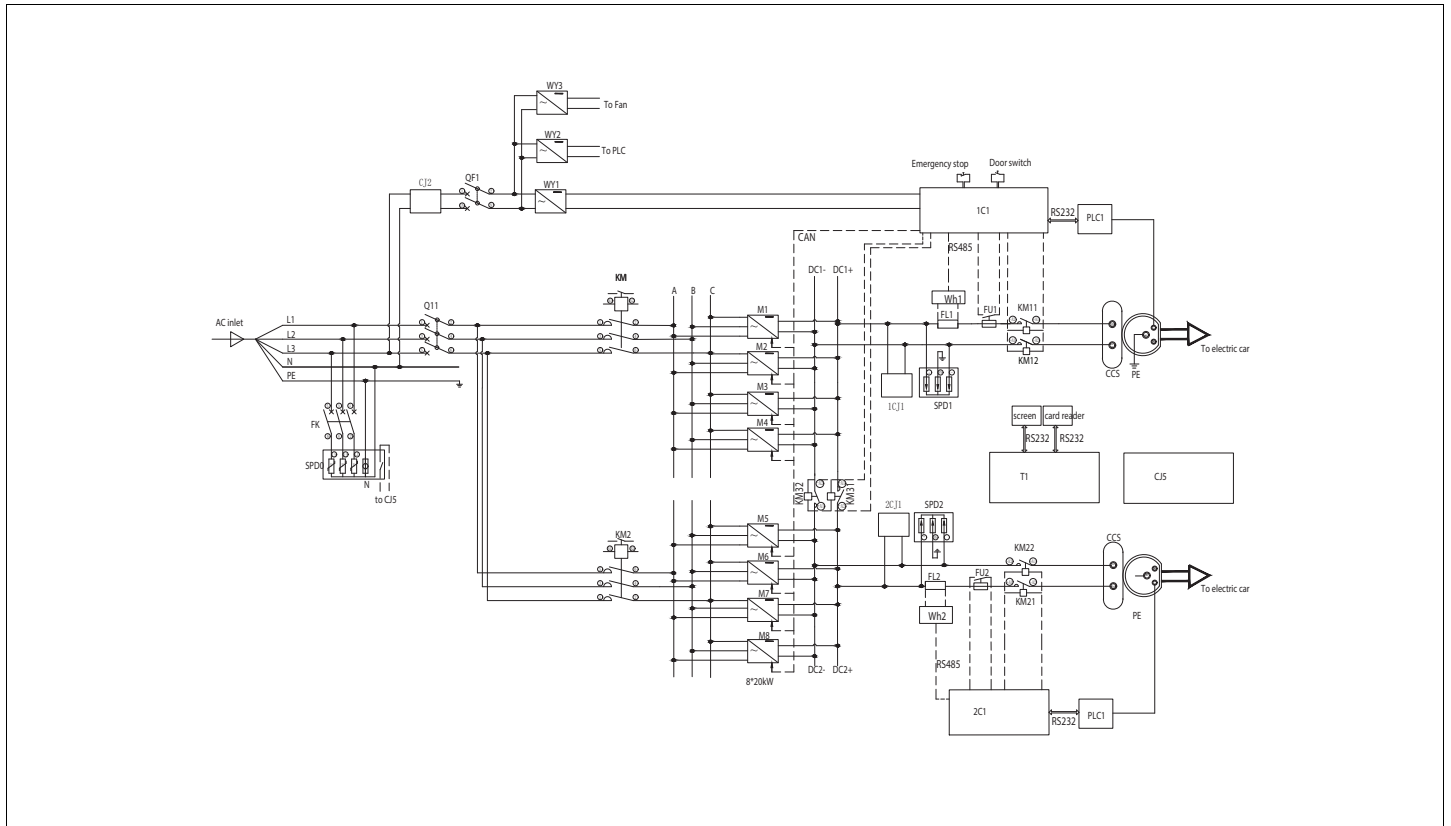


ZCharger 240 (9829372960-01-02)

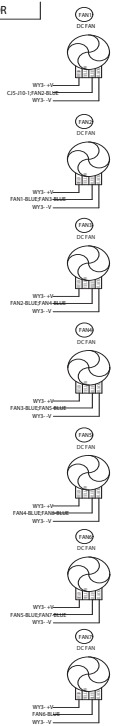


Circuit diagram

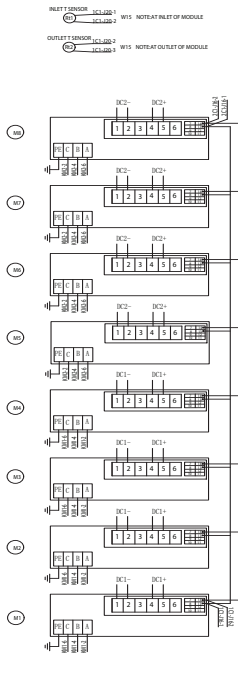
ZCharger 160 (9829370152-01-02)



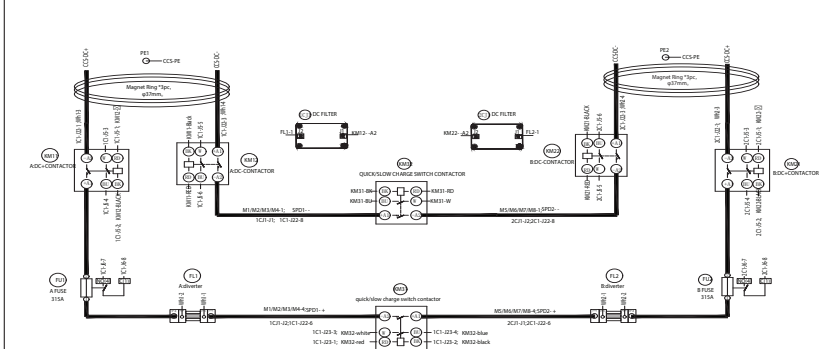
LEFT DOOR



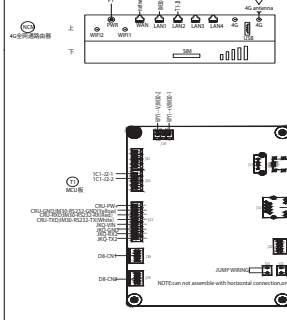
MODULE



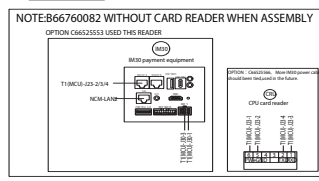
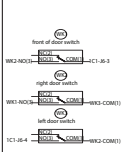
TOP OF DOOR



FRONT



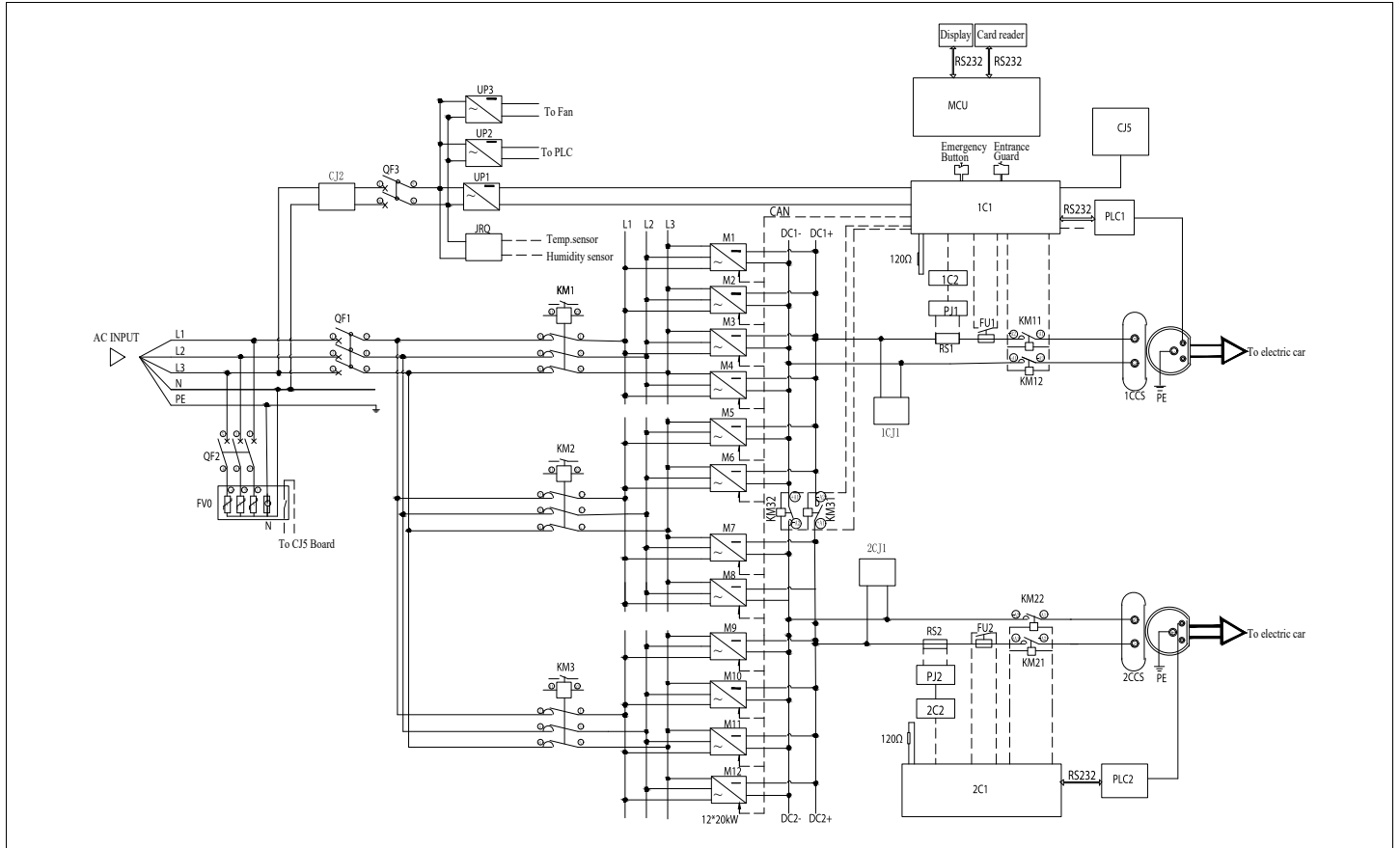
top of door

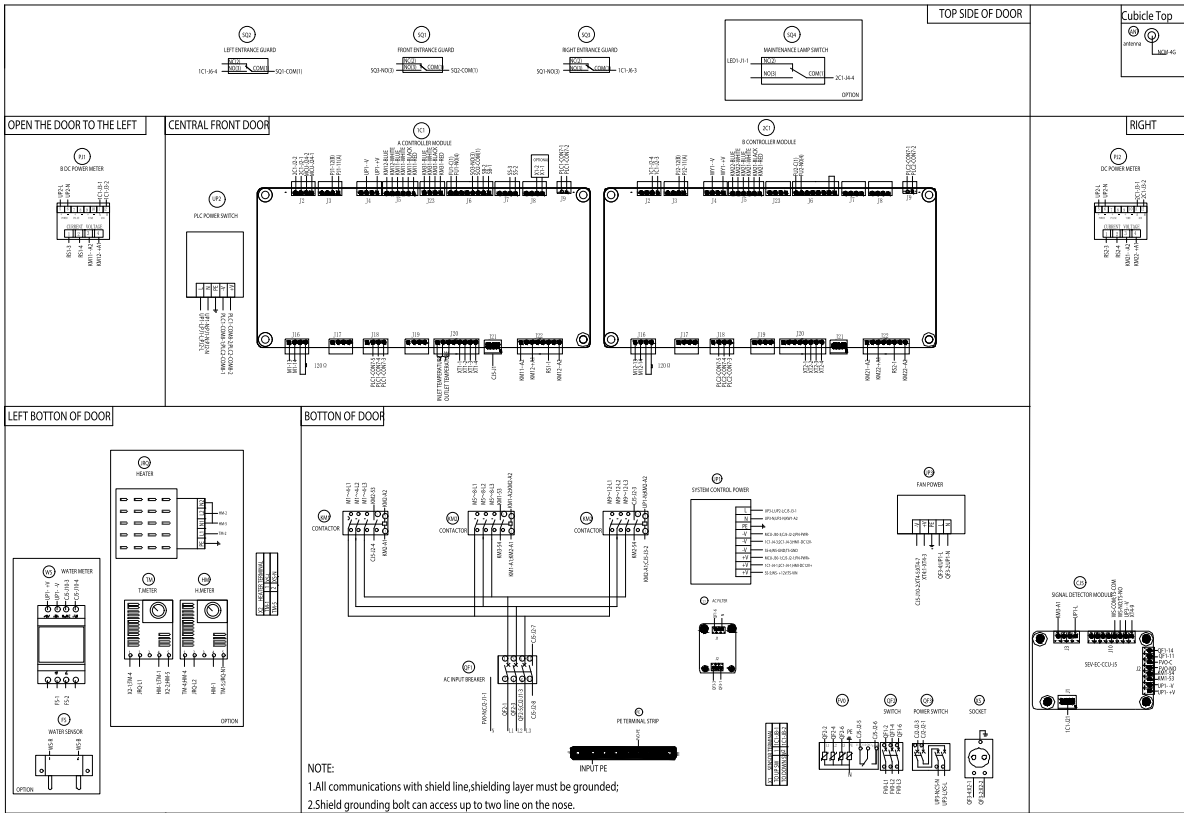


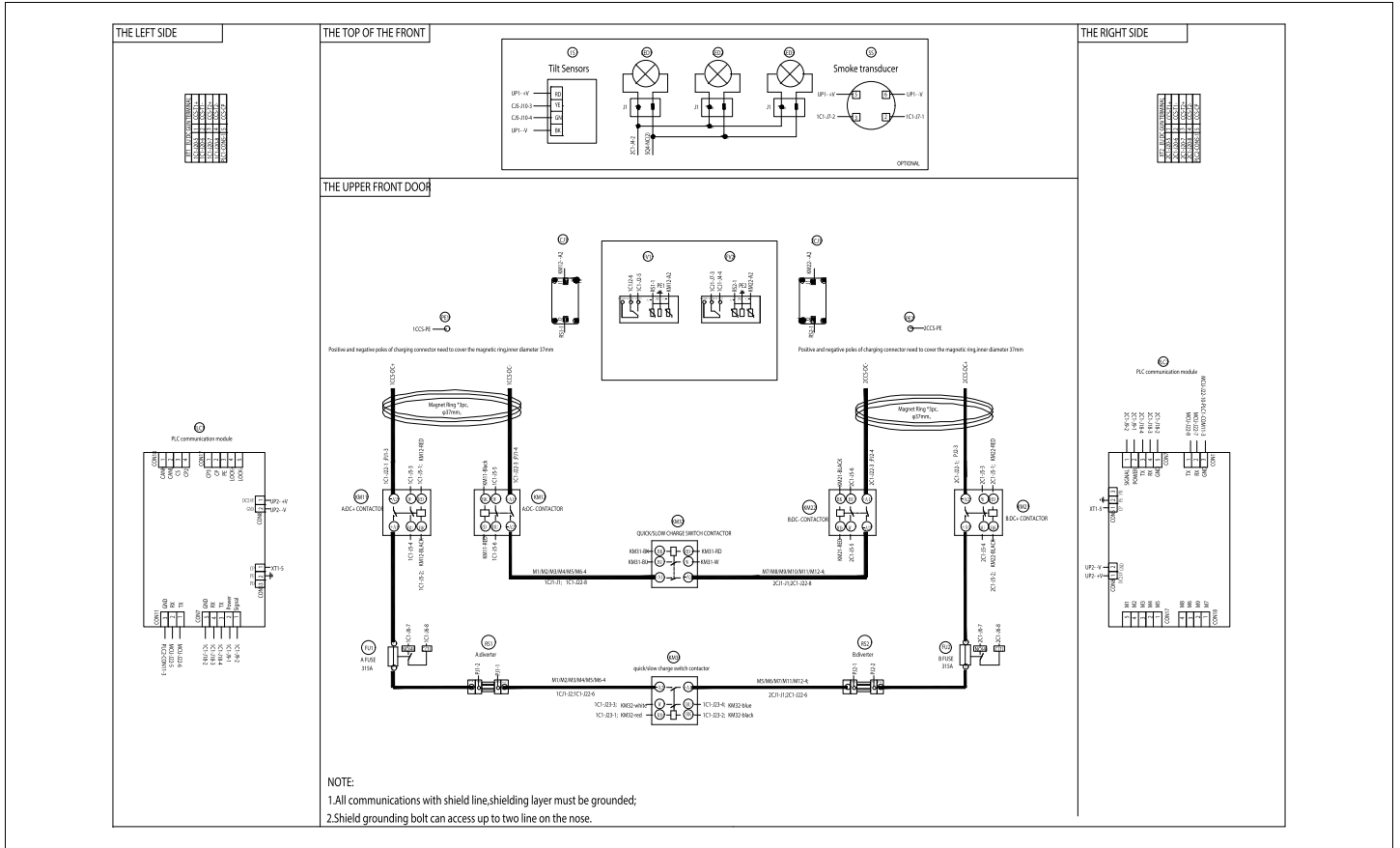
M8 (G0 A8)
M7 (G0 A6)
M6 (G0 A4)
M5 (G0 A2)
M4 (G0 A7)
M3 (G0 A5)
M2 (G0 A3)
M1 (G0 A1)

Note:Front view, M*- label No.
G*-Grouping setting No., A*-Module setting No.

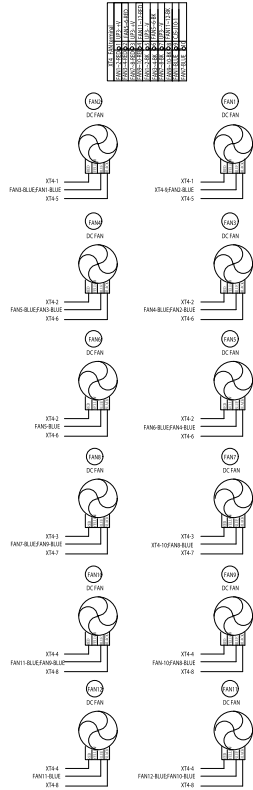
ZCharger 240 (9829372961-01-01)



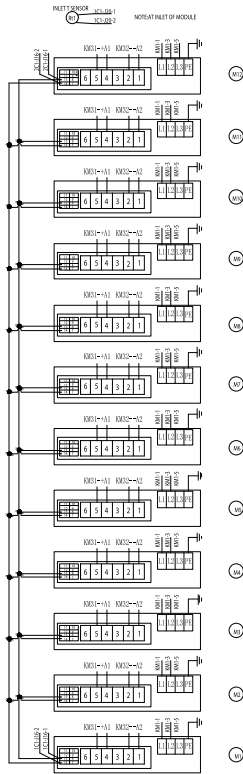




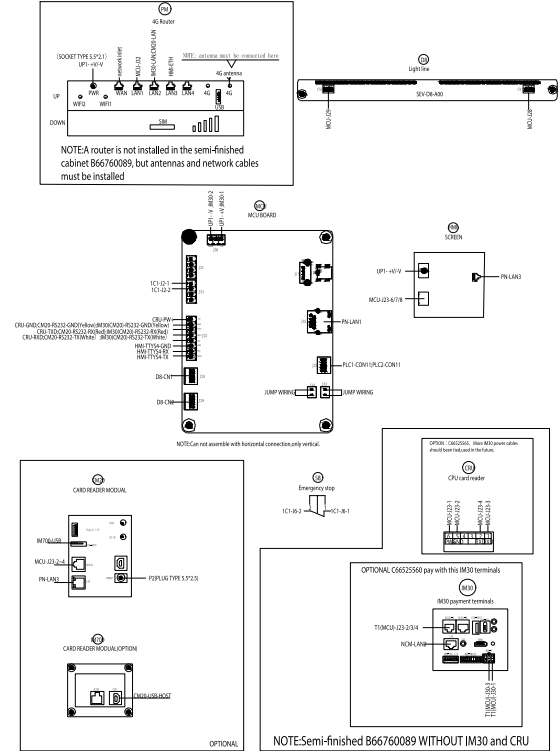
LEFT DOOR OF THE CABINET



MODULE PLUG IN BACK



FRONT BACK IN CABINET



- NOTE:
1. All communications with shield line, shielding layer must be grounded;
 2. Shield grounding bolt can access up to two line on the nose at most.

M12 (GO A12)
M11 (GO A10)
M10 (GO A8)
M9 (GO A6)
M8 (GO A4)
M7 (GO A2)
M6 (GO A11)
M5 (GO A9)
M4 (GO A7)
M3 (GO A5)
M2 (GO A3)
M1 (GO A1)

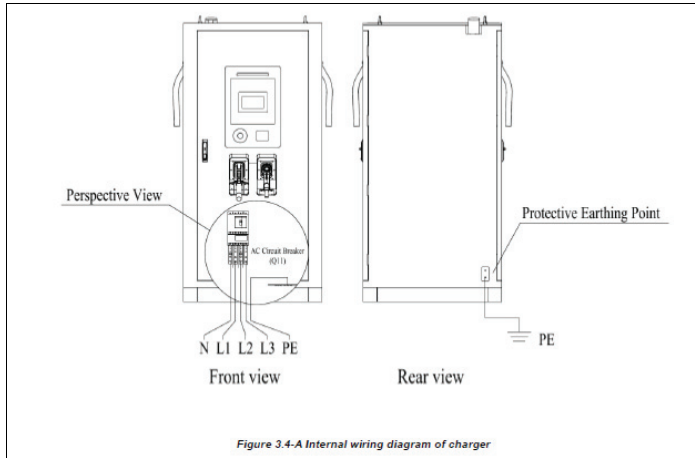
NOTE:

1. In the front door view, M* as the tag number,

G* indicates the group number, and A* indicates module number




Internal wiring diagram of equipment





The internal AC input cables are N,L1,L2,L3 and PE from left to right. The cabinet grounding is divided into two parts, one is the grounding bar inside the cabinet, and the other is the grounding of cabinet shell, as shown in figure







Installation steps of charging equipment

Tools required

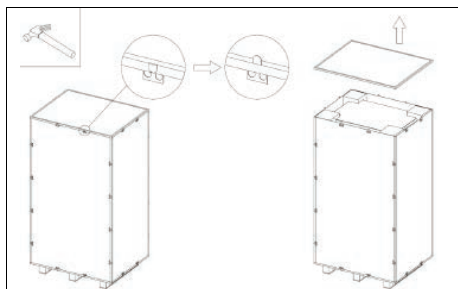
S/N	Tools	Qty	Photograph
1	Claw hammer	1	
2	Herringbone ladder	1	
3	Insulating gloves	1	

S/N	Tools	Qty	Photograph
4	Insulation shoes	1	
5	Adjustable wrench	1	
6	Art Knife	1	
7	Cross Screwdriver	1	

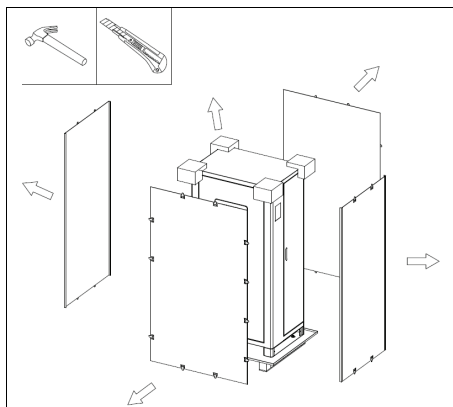
S/N	Tools	Qty	Photograph
8	Electric drill equipped with 16 mm drill bit	1	
9	Cable clipper	1	
10	Hydraulic clamp	1	
11	Anti-theft wrench	1	

Unpacking the outer package of the cabinet

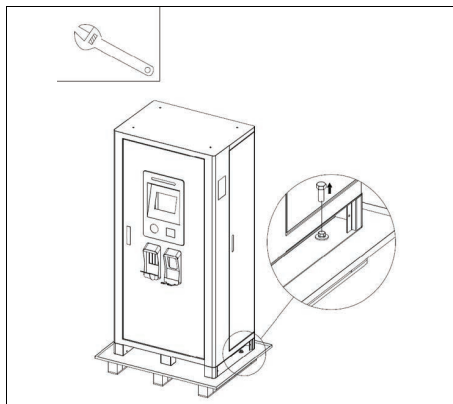
- Tools required: Herringbone ladder, claw hammer, art knife, protective gloves top of the packing material with a claw hammer, and remove the upper cover plate.



- Straighten all metal cards with a claw hammer, remove the surrounding wood boards, cut the PE bags wrapped around the cabinet with the art knife, and remove the PE bags and foam.



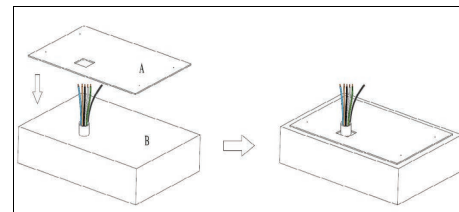
- Use a wrench to remove the four M12 bolts around the base.



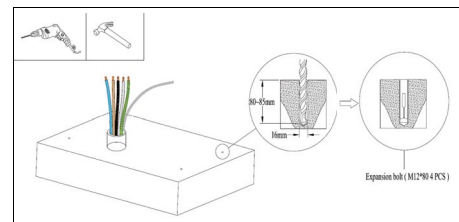
Foundation drilling

Tools required: electric drill, Dia 16 mm drill bit, protective gloves

- Lay the control paper on the cement installation base, and the cable hole of the mouldboard corresponds to the cable hole of the base.

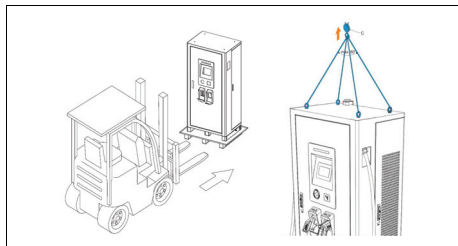


- Fix the control paper, and drill four mounting holes with a diameter of 16 mm and a depth of 80-85 mm on the current mounting base with an electric drill corresponding on the hole position on the cardboard.
- Knock four M12*80 expansion bolts into the holes with a claw hammer, and then screw out the screw part, so that the expansion bolt casing is embedded in the base mounting hole.

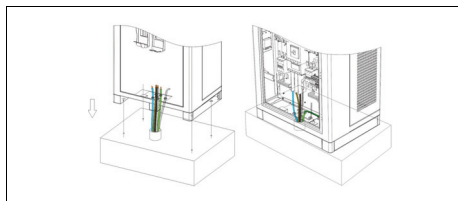


Placing charger

- Use forklift to transport the cabinet to the installation base, and use the crane to lift the cabinet.



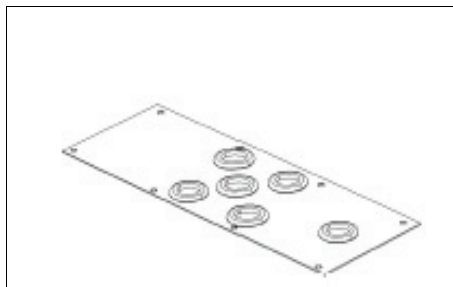
- Suspend the cabinet above the cement base, open the front door of the cabinet, and extend the embedded cable from the bottom of the cabinet through the inlet hole (the rubber film of the inlet hole needs to be punctured). At this time, slowly lower the cabinet and pull the remaining cables out from the front door until the cabinet is completely placed on the base.



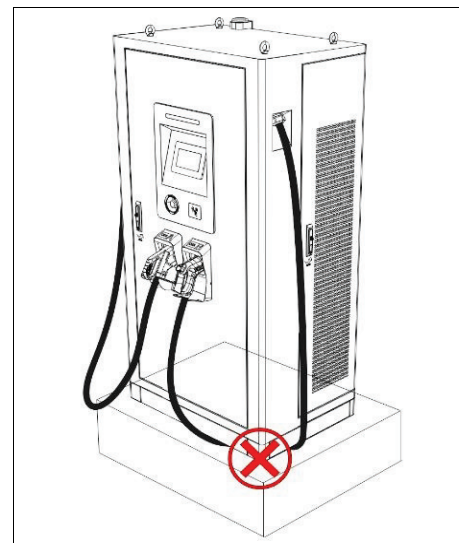
Note:

1. It is necessary to match the mounting hole of the cabinet base with the hole on the cement base;

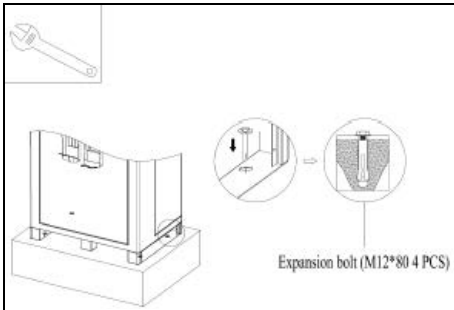
2. The inlet cable sealing plate of the cabinet can be removed, but the protection coil shall be avoided from damage during the removal process. .



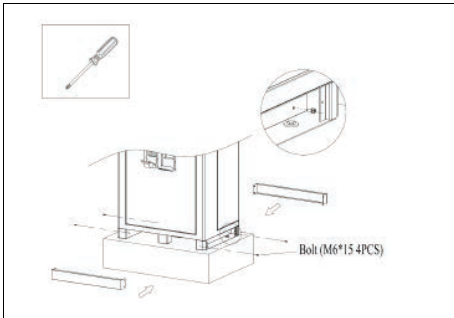
3. During the operation, please pay attention not to damage the cable and charging connector wire



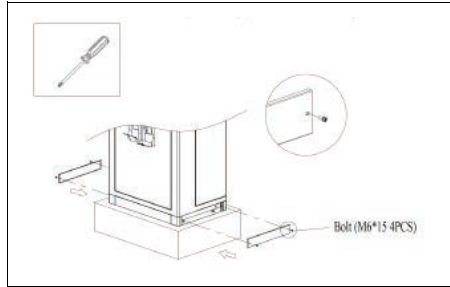
- Install M12*80 (4 pcs) expansion bolts on the drilled installation holes around the base, and tighten the bolts to ensure the cabinet is fixed reliably.



- Install the front and rear sealing plates of the base.

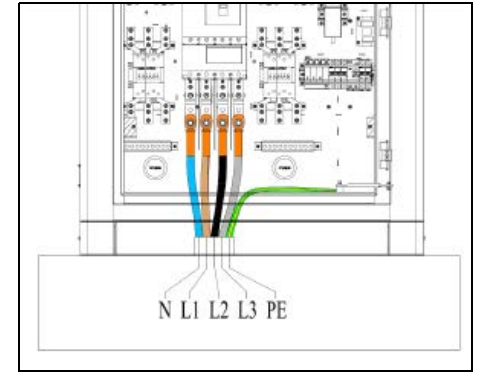


4. First install the front and rear sealing plates in the direction of the arrow, and then install the M16*15 screws from the left and right side of the fastening.
- Install the left and right sealing plates.



Installation steps of inlet cable

- Use the cable clipper to cut the cable to the appropriate wiring length, press the lug with hydraulic clamp and put on the heat shrinkable tube.
- Fix the cable lug on the copper bar with the screw of M12, the torque is 25-30N.m, and the force is calibrated.



Wiring of router and card reader

Since the router, host card reader, and subordinate card reader are installed on site, cable connections need to be wired according to the following instructions

Router (NCM) wiring diagram

Note

- The SIM card needs to be inserted into the router (NCM) and the following cables need to be connected:
 - Antenna, connected to '4G' port, the antenna cable has been reserved in the wiring position.
 - T1-J32, connected to 'LAN/WAN' port, the T1-J32 cable has been reserved in the wiring position.
 - CM20-LAN, connected to 'LAN' port.

DC power, connected to 'POWER' port, the DC power cable has been reserved in the wiring position.

Slave card reader module (CRU) wiring diagram

Note

The following cables of slave card reader module (CRU) only needs to be connected:

- CM20-USB-HOST, connected to 'USB' port.

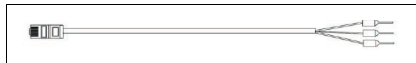
Host card reader module (CM20) wiring diagram

Note

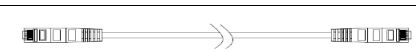
- The following cables of the host card reader module (CM20) needs to be connected.
 - CRU-USB, connected to 'USB-HOST' port, the CRU-USB cable style is shown below:



- T1-J23-2~4, connected to 'RS232' port, the cable has been reserved in the wiring position, the T1-J23-2~4 cable style is shown below:

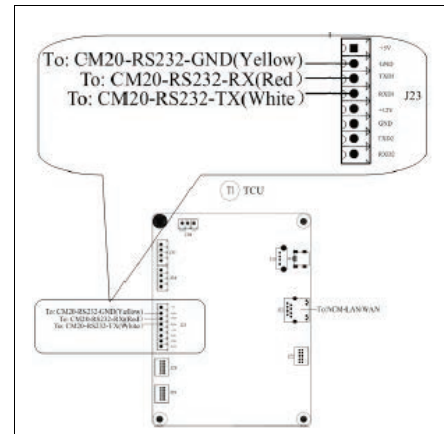


- NCM-LAN, connected to 'LAN' port, the NCM-LAN cable style is shown below:



- DC Power, connected to 'POWER' port, the DC Power cable has been reserved in the wiring position.

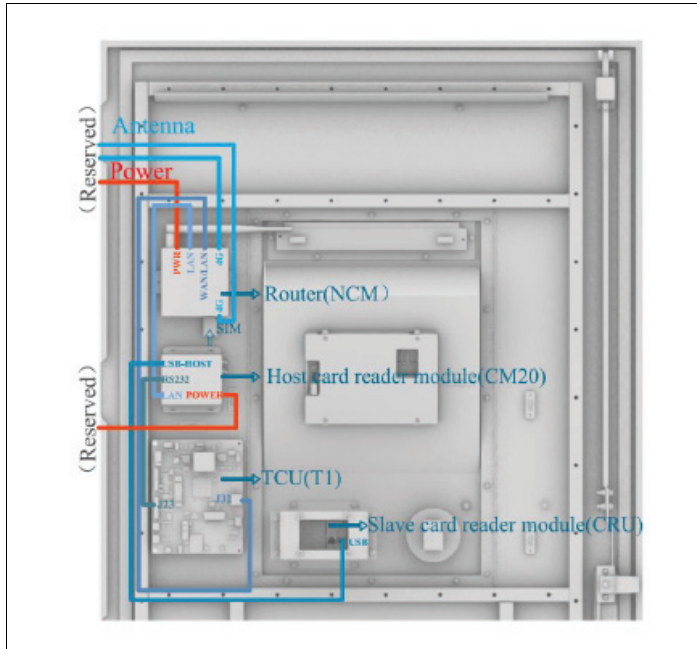
TCU (T1) wiring diagram



Note

- The following cables of the TCU (T1) needs to be connected:
 - CM20-RS232, the yellow wire connected to 'J23-3' port, the white wire connected to 'J23-4' port, the CM20-RS232 cable has been reserved in the wiring position.
 - NCM-LAN/WAN, connected to 'J32' port, the NCM-LAN/WAN cable has been reserved in the wiring position.

Overall wiring diagram



Inspection after installation

Stability

- After the pile is installed, shake the cabinet from different directions, and there should be no obvious loosening and shaking.

Clean up

- Dispose of all transportation and packaging materials in accordance with regular local regulations.
- Clean up the sundries inside and around the cabinet, such as small section of cable, binding tape, screw/nut, desiccant, etc. Do not leave installation tools on site or in the cabinet (record the type and quantity of tools to prevent omission)
- Wipe the insulation with anti-static cloth. Do not use any corrosive solvent.

Inspection

- Check whether the base is fixed and sealed.
- Check whether the internal components of the equipment are tight and reliable.
- Check whether the electrical connection and wiring are correct and complete, whether the connection is reliable, and whether the grounding is reliable.
- Check whether the cable terminal is loose, and calibrate the screw fixing the terminal.
- Check whether the cable is broken, damaged and scratched.
- Check whether the protection level of the equipment meets the requirements, especially the cable entrance at the bottom of the pile.
- Check appearance, marking, integrity, cleanliness.

- Check the installation of the equipment according to the foundation installation drawing.

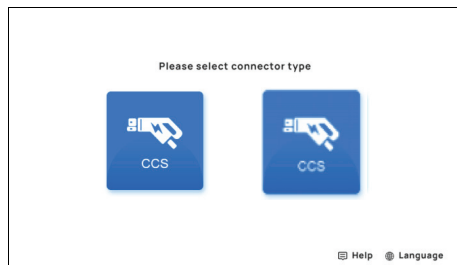
Operation interface

Charging process



When the charger is in standby mode, the screen is in the energy-saving mode. Before operation, touch the screen with your finger to light up the screen.

Standby interface



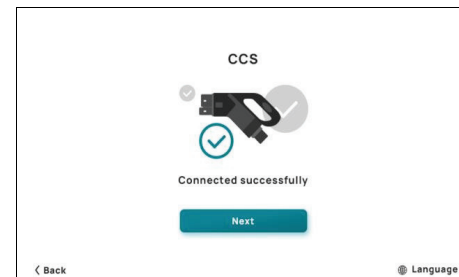
Select CCS connector according to the socket type of the car, The following is the process of selecting CCS are consistent with CCS.

Waiting for connector insertion interface



Connecting the connector to the car will jump to the connector insertion interface.

Connecting interface



Click next to enter the interface of charging mode selection.


Charging modes interface




Click the payment method you want to enter the next charging operation.

Currently using CCS connector


Please select payment mode



Pay by QR code



Pay by card



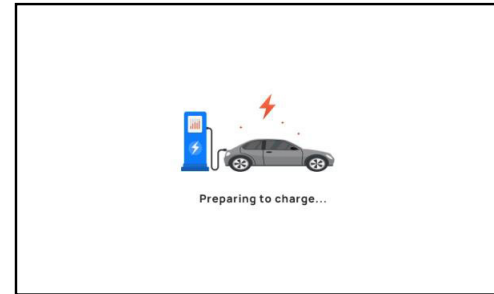
Administrator Mode

[← Back](#) [Help](#) [Language](#)

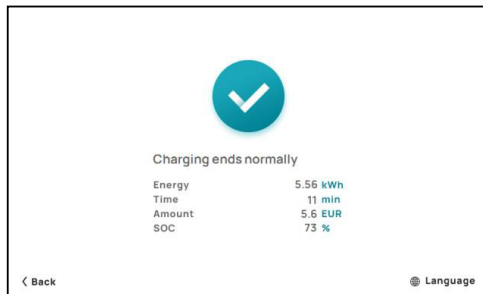
QR-based charging process



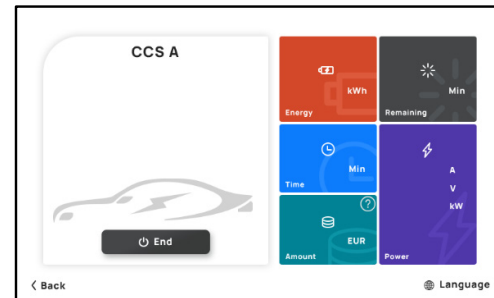
Scan the QR to enter the start charging interface .



Charging interface



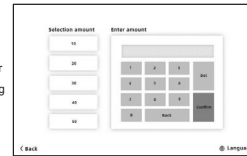
Click "end" to end charging and enter the settlement interface .



Card-based charging process



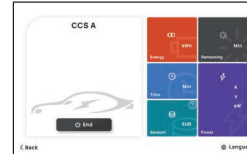
Select or enter the precharge amount to enter the card swiping interface.



Pay by card according to the interface prompt to enter the charging start interface.



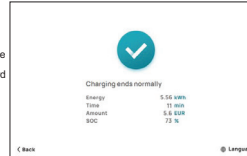
Charging interface.



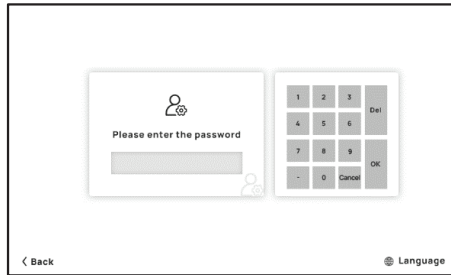
Click "End" to end charging and enter the pay by card interface.



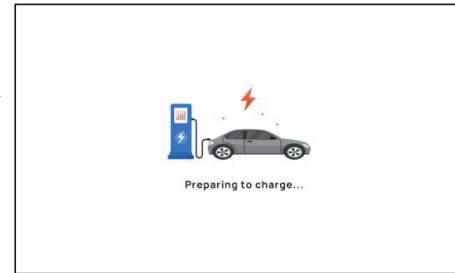
Enter the settlement interface after paying by card according to the interface prompt.



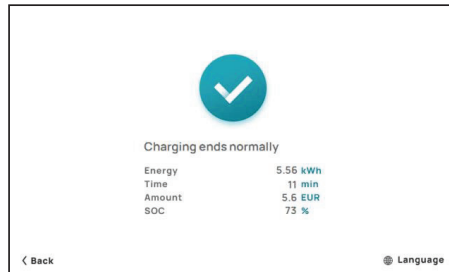
Password-based charging process



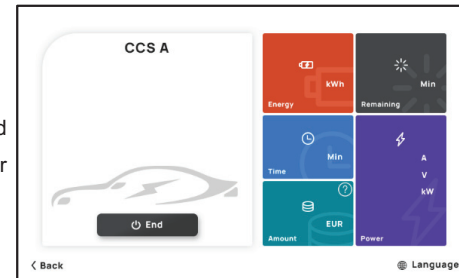
Enter the password to enter the start charging interface .



Charging interface.



Click "end" to end charging and enter the pay interface.



Power limitation settings



The following instructions are based on MCU version higher than 111.01.104.42.

Single connector

To change the power limitation for a single connector, change the value for 'Maximum Power' with following steps:

Settings > CCU > Protection > Maximum Power



This setting only applies to an individual connector's power output.

Total power limitation

The total power limitation setting will limit the power output of the charger instead of the individual connector. For example, when the total power is limited to 40 kW, the charger will provide a total of 40 kW output in both the scenarios.

Scenario 1: When a single connector is charging, it is limited by 40 kW.

Scenario 2: When both connectors are charging, they are limited by 50/50 (20 kW/20 kW) for each, and 40 kW in total.

Follow the steps as shown below to set the total power limit.

1. Go to debug address 5 in the debug addresses interface and input 399.

Administrator mode (password 080808) > Debug > Previous > Debug address 5:



To switch off total power limitation, input 399 again in the same field.

Connector No.

Operating mode:

Load type:

System status:

Module voltage:

Charging power:

Demand voltage:

Demand current:

System fan:

Output voltage:

Output current:

Charging time:

SOC capacity:

Voltage calibration:

Debug variable 1:

Debug variable 2:

Time modify:

Starting up

Shutdown

< Back

< Previous

Home

Next >

Language

Debug address 1:

Debug address 2:

Debug address 3:

Debug address 4:

Debug address 5:

< Back

< Previous

Home

Next >

Language

2. Set the maximum power limits for both the connectors as the desired total power limit.

Administrator mode (password 080808) > Setting > CCU > Protection >

Connector No: A > Maximum power: The value to be limited in total

Connector No: B > Maximum power: The value to be limited in total

The screenshot shows a configuration screen for a CCU. At the top, there is a 'Connector No.' field with a dropdown menu icon, highlighted by a red box. Below this are two main sections: 'Control' and 'Protection'. The 'Control' section includes parameters for Environment over-Temp, Environment under-Temp, Internal over-Temp, Maximum voltage, Output overvoltage, Output undervoltage, Input overvoltage, Input undervoltage, Input breaker detection, Input contactor detection, Test mode, and Door control. The 'Protection' section includes Maximum current, Connector port overheated, Maximum power (highlighted with a red box), Insulation resistance, and Output overcurrent. At the bottom left is a '< Back' button, and at the bottom right is a 'Language' button with a globe icon.



Make sure that step 3 is implemented after step 2.



Step 3 must be implemented on both the connectors (A and B), and the value must be the same.

Technical specifications

Category	Parameter	Value/Description	
		ZCharger 160 CE	ZCharger 240 CE
Input Characteristic	Input	3P+N+PE	3P+N+PE
	Input Voltage	AC 380 ± 15%	AC 400 ± 10%
	Frequency	50/60 Hz	50/60HZ
	Power Factor	0.99	0.99
	THDi	< 5%	<5%
Output Characteristic	Output Voltage	200-1000 Vdc	200-1000 Vdc
	Rated power	160kW	240kW
	Max Current	CCS2: 200A	CCS2: 200A HCCS2: 300A
	Peak Efficiency	95% at half load	96% at half load
	Connector Type	IEC 62196	IEC 62196
Standards	System Standards	IEC 61851	IEC 61851
Others	Energy meter	High precision meter	High precision meter
	Number of connectors	2 (CCS2) Two connectors can be used at the same time: power split evenly. Only one connector: full power.	2(CCS2) Two connectors can be used at the same time: power split evenly. Only one connector: full power
	Network Interface	4G/LAN port	4G/LAN Port
	Protection level	IP55/IK10	IP55/IK10
	Cable length	7.5m(total, outside charger 7m)	7.5m(total, outside charger 7m)
	Communication protocol	OCPP1.6J	OCPP1.6J
	Display Screen	7 inch HD touch screen	15 inch HD touch screen
	Language	English	English
	Cooling method	Forced air cooling	Forced air cooling

Category	Parameter	Value/Description	
		ZCharger 160 CE	ZCharger 240 CE
Environmental conditions	Operating temperature	-25 ~ 65 degree C (Above 45 degree C derating operation)	-20 ~ 50 degree C (Full power)
	Humidity	5% ~ 95%	5% ~ 95%
	Altitude	< 2000 m	< 2000 m
Protection		Undervoltage protection	Undervoltage protection
		Overvoltage protection	Overvoltage protection
		DC Overcurrent protection	DC Overcurrent protection
		Over-temperature protection	Over-temperature protection
		Surge protection	Surge protection
		Emergency stop protection	Emergency stop protection

Maintenance

Liability

The manufacturer does not accept any liability for any damage arising from the use of non-original parts and for modifications, additions or conversions made without the manufacturer's approval in writing.

Service paks

A service pak is a collection of parts to be used for a specific maintenance task, e.g. after a month, 3 months, etc.

It guarantees that all necessary parts are replaced at the same time keeping down time to a minimum.

The order number of the Service Packs are listed in the Atlas Copco Parts List (ASL).

Use of service paks

Service paks include all genuine parts needed for normal maintenance of both compressor and engine.

Service paks minimize downtime and keep your maintenance budget low.

Order service paks at your local Atlas Copco dealer.

Service kits

A service kit is a collection of parts to fit a specific repair or rebuilding task.

It guarantees that all necessary parts are replaced at the same time which improves the uptime of the unit.

The order numbers of the Service Kits are listed in the Atlas Copco Parts List (ASL).



Contact Atlas Copco.

QR code

Scan the QR code to access into the Atlas Copco Power Connect site. Enter the machine serial number to get the Atlas Copco Spare Parts List (ASL).



Long-term storage

When the charger is not used, the charger shall be in a power-off state and the unnecessary load of the charger shall be reduced, so as to increase the service life of the charger.

Charger maintenance items and checking cycle

Checking item	Checking cycle	Checking content	Treatment method
Front-end distribution box	Three months	Each item is checked in accordance with the maintenance manual of the distribution box. (Note: The maintenance manual of the distribution box is provided by the supplier of distribution box)	Maintenance and repairing
Appearance of equipment	One year	Check the appearance of the cabinet for any strains. Check whether the cabinet shell is flat or has any rust, scratch, deformation, paint damage and other defects.	Cleaning and paint repair
Interior of charger	Every year	Check whether the interior of the cabinet is clean and tidy, and whether the air inlet and outlet of the power module are filled with dust. The dust shall be timely removed to prevent the failure of the module.	Cleaning
Lightning protector	Every year	Check whether the module is loose and the status indicator is normal. If the status indicator changes to red, the dry contact NC-COM of alarm becomes open or the NC-COM becomes short-circuited, the surge protector has failed.	Replacement
Fan	Half a year	Whether the fan is working properly.	Maintenance and repairing
Signal lamp	Half a year	Check whether the signal lamp is burned out, whether it is fixed tightly or not, and whether it is in a normal state.	Maintenance and repairing
Components	Half a year	Check whether components of the electric circuit have discoloration, deformation and other phenomena, whether the fixation is loose, and whether the connection of the components is burned out. If any abnormality is found, parts shall be replaced in a timely manner.	Maintenance and repairing
Charging connector	Half a year	Check whether the fixing clasp of the charging connector is damaged, whether the needle of the charging connector is oxidized and discolored or obviously worn and deformed, whether any foreign body has entered the hole on the head of the connector, and whether the charging connector cable is damaged.	Cleaning and repairing
Power module	Half a year	Check that the power module is normal and there is a trouble-free display on the module screen.	Maintenance and repairing
Human machine interface	Half a year	Check whether the screen of the display screen is cracked, whether the display is normal, check whether it can operate normally.	Maintenance and repairing
Emergency stop function	Half a year	Press the emergency stop button to check, whether the emergency stop button is working normally, and reset the emergency stop button after normal check.	Maintenance and repairing

Checking item	Checking cycle	Checking content	Treatment method
Equipment grounding	Half a year	Check whether the ground wire of the equipment housing is loose or detached.	Maintenance and repairing
System grounding	Half a year	Check whether the grounding cable inside the cabinet is loose and fall off, whether the grounding sign is complete and obvious, and whether there is any loss or damage.	Maintenance and repairing
Slot	Every year	Check whether the slot is fixed firmly, whether the cover plate is complete and tight.	Maintenance and repairing
Breaker	Monthly	Press the TEST button of the circuit breaker to see whether the circuit breaker can trip properly.	Maintenance and repairing
Electric cable	Every year	Check whether the cable and switch are connected closely, whether the grounding is reliable, whether the power cable is blackened, deformed or damaged, and whether the sealing measures at the incoming cable of the cabinet are intact.	Repairing and replacement of cables
Force majeure factor	Immediately	In case of flood, earthquake, impact, switch trip and other events, the whole machine shall be checked immediately.	Maintenance and repairing

Replacement of common devices

Note: To change devices, do not operate when the charger is live.

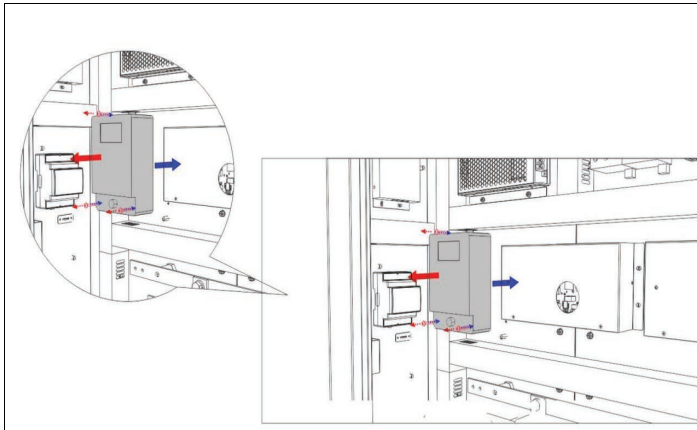
Electric meter

Tools required: screwdriver

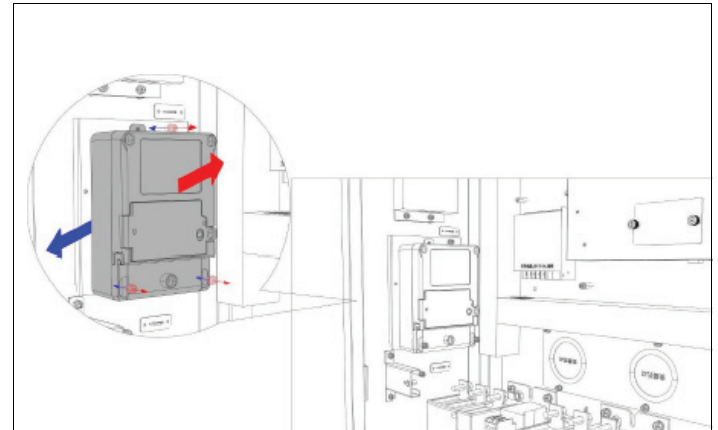
Replacement steps:

1. Screw off the screw on the protective cover at the lower end of the electric meter, unscrew the protective cover, and remove the connecting cable of the electric meter.
2. Remove the fixing screws at both ends of the connection area of the electric meter and the hanging screws at the upper end of the electric meter. And then the electric meter can be removed.
3. Replace with a new electric meter in the opposite way to disassemble it.

ZCharger 160 CE



ZCharger 240 CE



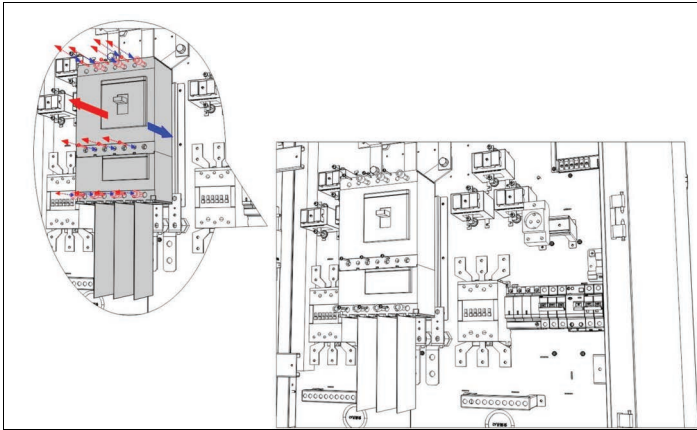
Main circuit breaker

ZCharger 160 CE

Tools required: allen wrench, screwdriver and socket wrench

Replacement steps:

1. Remove the screws in the fixed bus bar of the circuit breaker by using an Allen wrench.
2. Remove the input and output bus bar with a socket wrench.
3. Use a screwdriver to remove the fixing screw at the upper, middle and lower ends of the main circuit breaker. And then the main circuit breaker can be removed.
4. Replace with the new main circuit breaker in opposite way to assemble it.

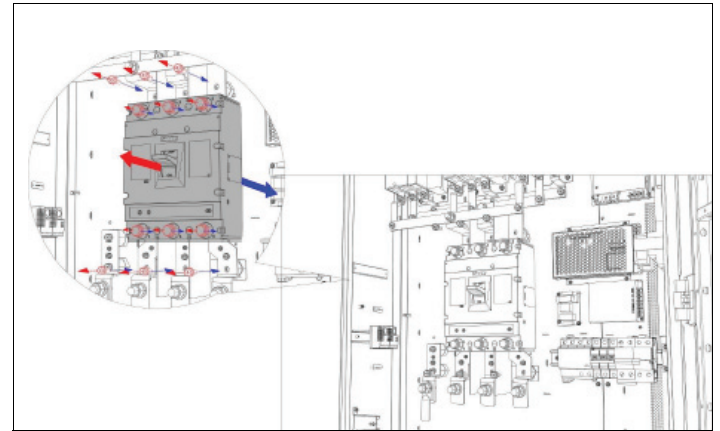


ZCharger 240 CE

Tools required: screwdriver and socket wrench

Replacement steps:

1. Remove the screws in the fixed bus bar of the circuit breaker by using socket wrench.
2. Remove the input and output bus bar with a socket wrench.
3. Use a screwdriver to remove the fixing screw at the upper lower ends of the main circuit breaker. And then the main circuit breaker can be removed.
4. Replace with the new main circuit breaker in opposite way to assemble it.



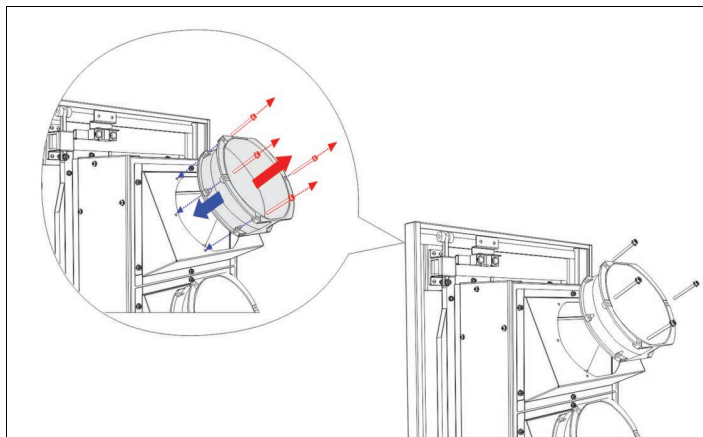
Cooling fan

Tools required: screwdriver

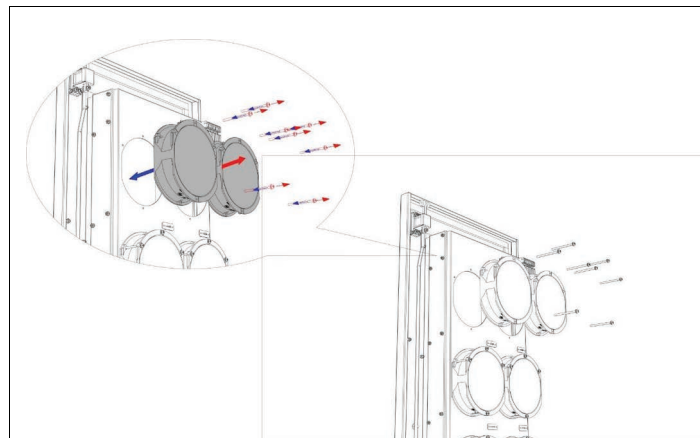
Replacement steps:

1. Separate the terminal of plug-in connectors of the cables of the cooling fan.
2. Use a screwdriver to remove the four fixing screws of the fan. And then the fan can be removed.
3. Replace with a new cooling fan in the opposite way to assemble it.

ZCharger 160 CE



ZCharger 240 CE



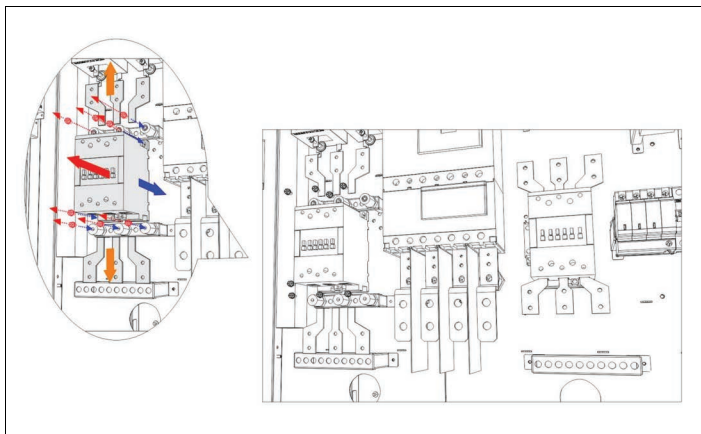
AC Contactor

ZCharger 160 CE

Tools required: screwdriver

Replacement steps:

1. Use a screwdriver to unscrew six screws fixing the bus bar in the AC contactor. Note that these screws cannot be taken out and can only be unscrewed.
2. Use a screwdriver to remove the fixing screw between the bus bar and the insulation column, and move the bus bar out of the AC contactor.
3. Use a screwdriver to remove the fixing screws in the upper right and lower left corners of the AC contactor. And then the AC contactor can be removed.
4. Replace with a new AC contactor in the opposite way to assemble it.

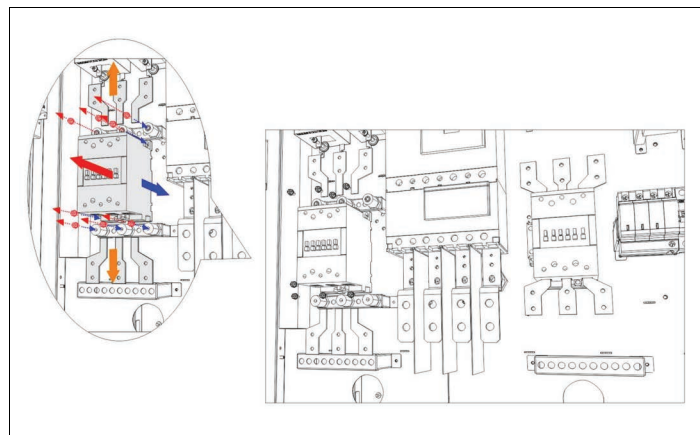


ZCharger 240 CE

Tools required: socket wrench

Replacement steps:

1. Use a socket wrench to unscrew six screws fixing the bus bar in the AC contactor. Note that these screws cannot be taken out and can only be unscrewed.
2. Use a socket wrench to remove the fixing screw between the bus bar and the insulation column, and move the bus bar out of the AC contactor.
3. Use a socket wrench to remove the fixing screws in the upper right and lower left corners of the AC contactor. And then the AC contactor can be removed.
4. Replace with a new AC contactor in the opposite way to assemble it.



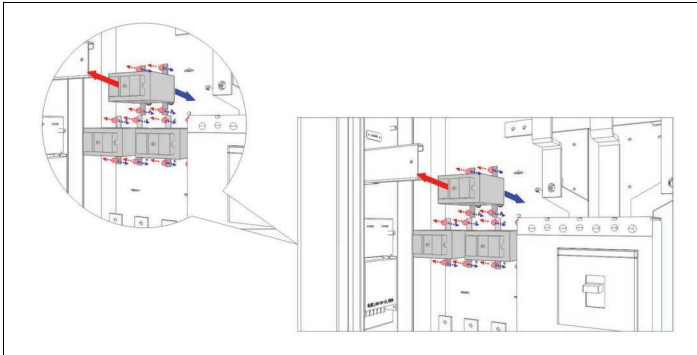
Transformer

ZCharger 160 CE

Tools required: screwdriver

Replacement steps:

1. Use a screwdriver to remove the protective cover on the transformer and remove the connecting cable.
2. Use the screwdriver to remove the four screws of the fixed plate at the bottom of the transformer. And then the transformer can be removed.
3. Remove the cable passing through the transformer from the bus bar, and pass the transformer through the cable.
4. Replace with the new transformer in the opposite way to assemble it.



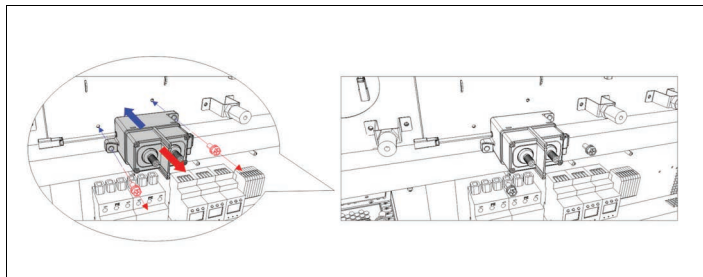
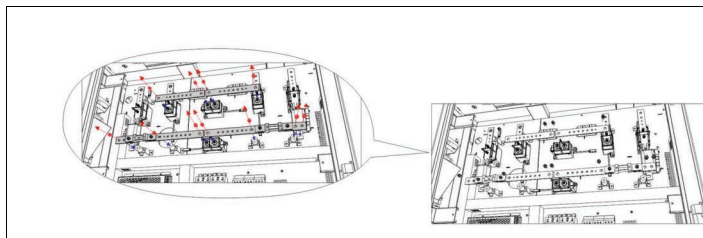
DC Contactor

Tools required: screwdriver and socket wrench

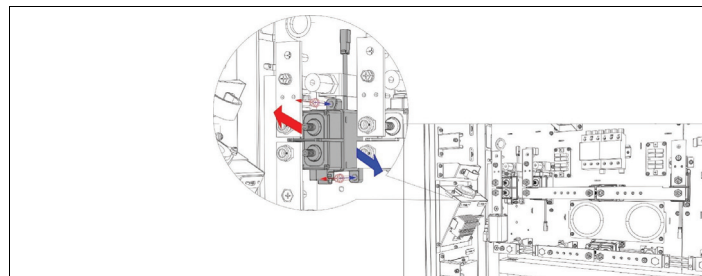
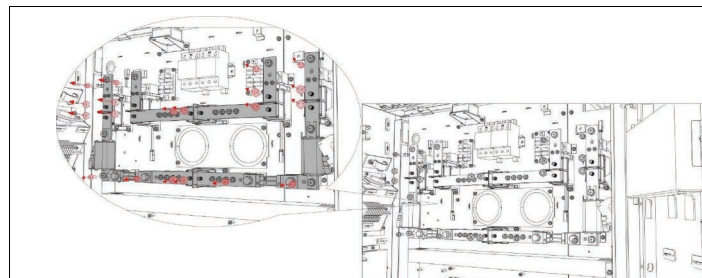
Replacement steps:

1. Use a socket wrench to remove the bus bar on the DC contactor.
2. Remove the white signal line terminal on the side of the DC contactor.
3. Use the screwdriver to remove the fixing screw in the upper right corner and lower left corner of the DC contactor. And then the DC contactor can be removed.
4. Replace with a new DC contactor in the opposite way to assemble it.

ZCharger 160 CE



ZCharger 240 CE



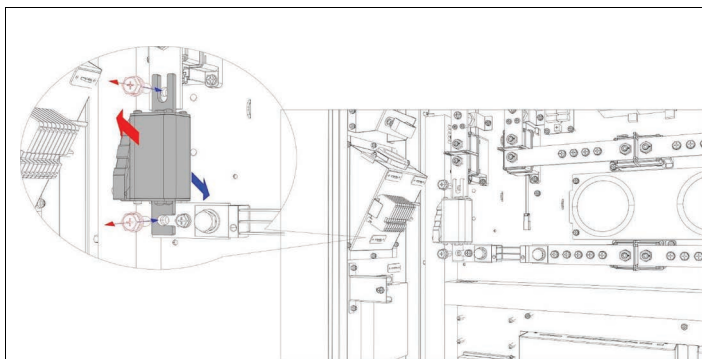
Fuse

ZCharger 240 CE

Tools required: socket wrench

Replacement steps:

1. Remove the fuse connection cable.
2. Remove the screw from the fuse.
3. Replace the fuse with a new one, in the opposite way to assemble it.
4. Remove the cable passing through the transformer from the bus bar, and pass the transformer through the cable.
5. Replace with the new transformer in the opposite way to assemble it.



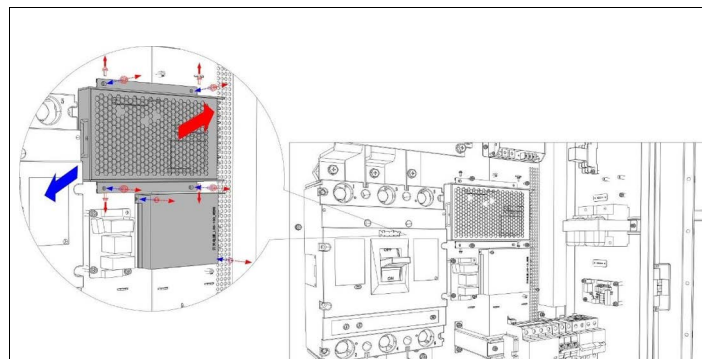
System operating power supply

ZCharger 240 CE

Tools required: screwdriver

Replacement steps:

1. Remove the connection cable from the system power supply.
2. First remove the four screws securing the sheet metal parts on the system power supply to the cabinet.
3. Remove the auxiliary source and the four screws holding the sheet metal parts.
4. Replace the auxiliary power supply with a new one, in the opposite way to assemble the system power supply.



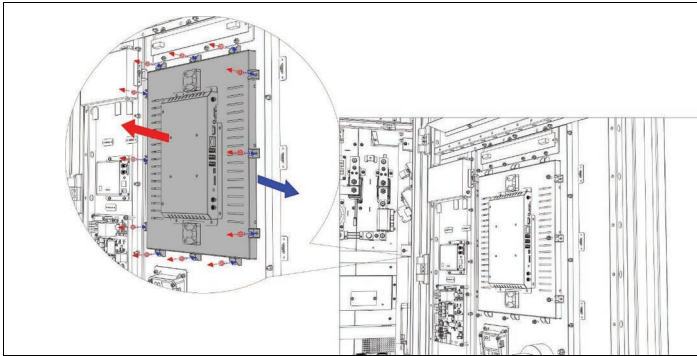
Display screen

ZCharger 240 CE

Tools required: screwdriver

Replacement steps:

1. Remove the connection cable from the display screen.
2. Hold the display screen from the front and remove the twelve screws and the clips from the back.
3. Remove the display from the front.
4. Replace the display screen with a new one, in the opposite way to assemble it.



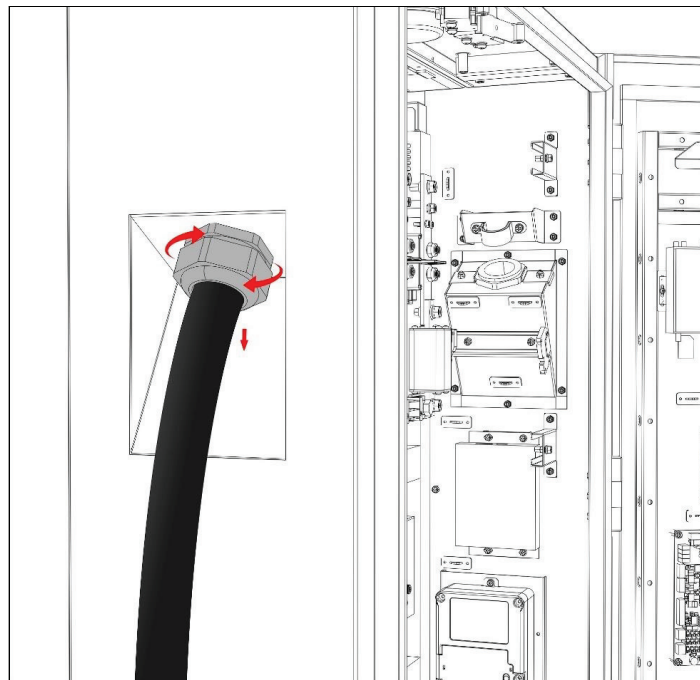
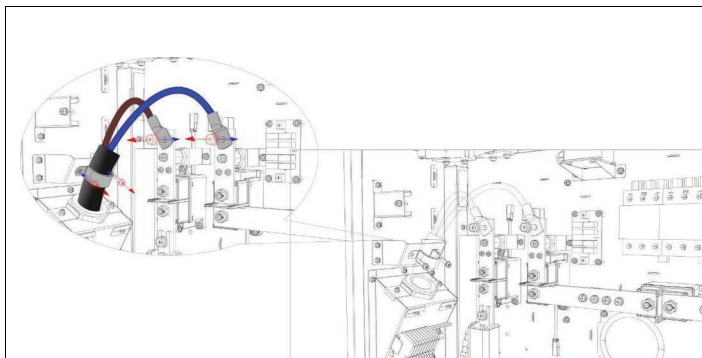
Connector line

ZCharger 240 CE

Tools required: spanner, screwdriver

Replacement steps:

1. Remove the connecting cable of the connector line.
2. Remove the screws from the connector line terminals and the U-clips holding the connector line in place.
3. After loosening the PG head with a spanner and taking the connector line out, remove the PG head from the connector line.
4. Replace the connector line with a new one, in the opposite way to assemble it.



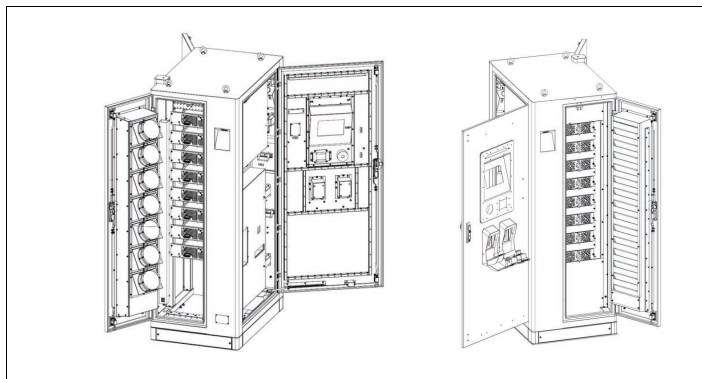
Replacing the dust screen

ZCharger 160 CE

Tools required: screwdriver

Replacement steps:

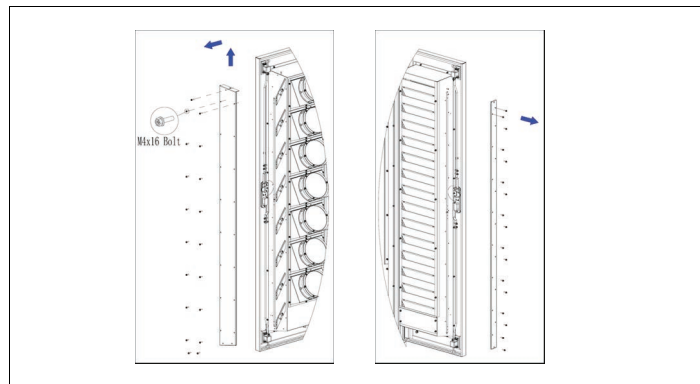
1. Turn off the power supply and open the left and right doors of the cabinet.



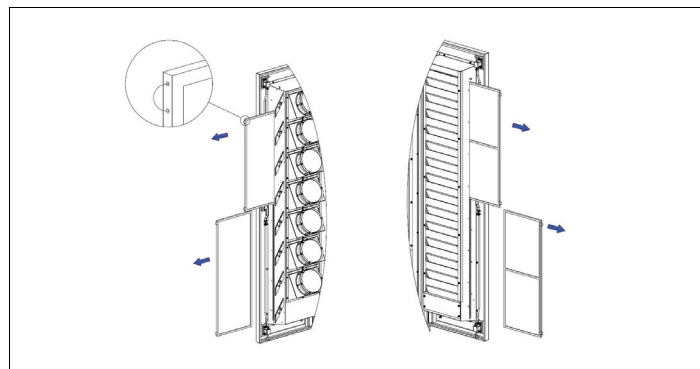
2. Remove the left and right cover plates and their installation screws (M14*16) with an electric screwdriver.



The left cover plate shall be lifted up for about 20 mm, and then taken out. Do not lose the cover plate and installation screw. They will be used in future installation.



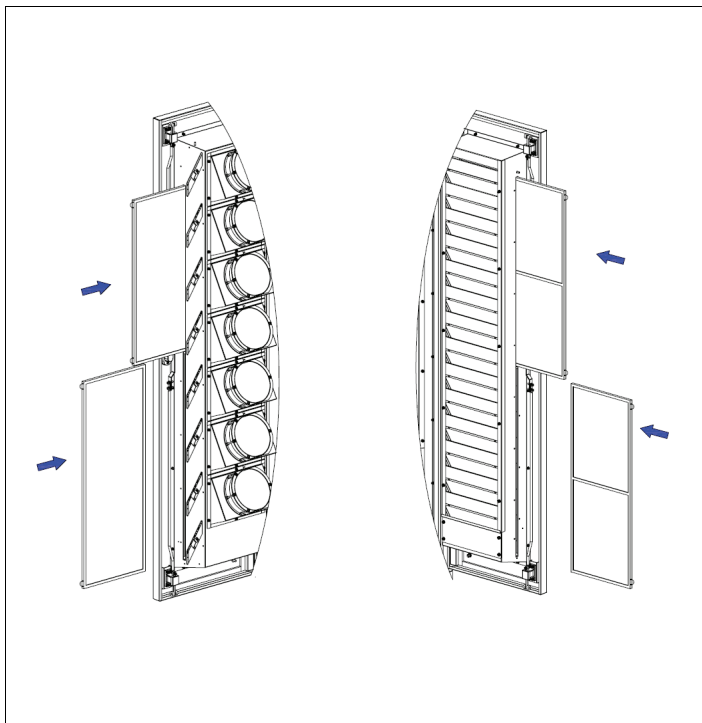
3. Use the drawing pipe of dust screen to draw out the old dust screen and scrap it.



4. Insert the new dust screen with the same specification into the left and right side door respectively.



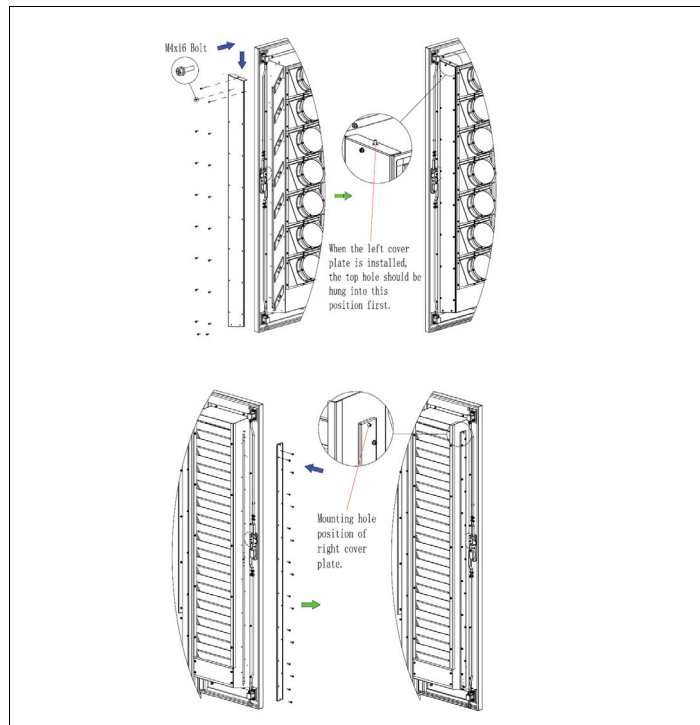
One end of the pull ring is kept outside for the next change.



5. Install the side cover plate and lock the screw (M14*16). The reference torque of screw tightening: 16kgf. cm.



The top of the cover plate shall be hung first for installation of the left cover plate, as shown in the figure. And then install the screw.



6. The dust screen has been replaced.

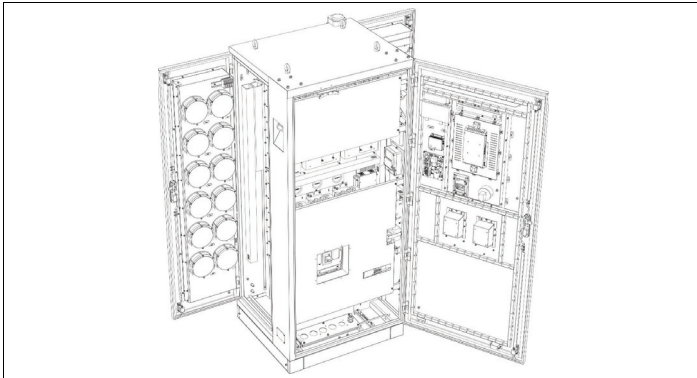
Guidance for replacement of dust filter

ZCharger 240 CE

Tools required: screwdriver

Replacement steps:

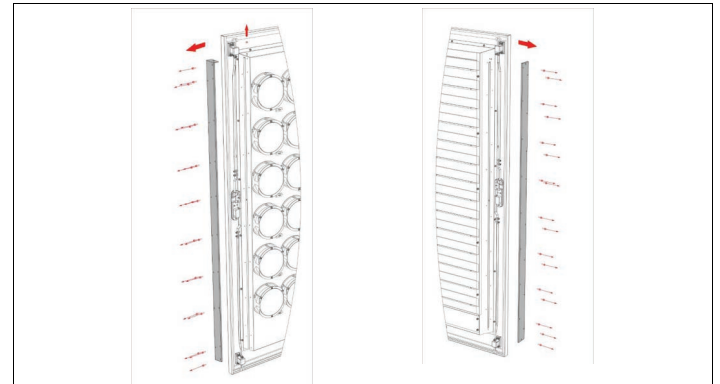
1. Turn of the power supply and open the left and right doors of the cabinet.



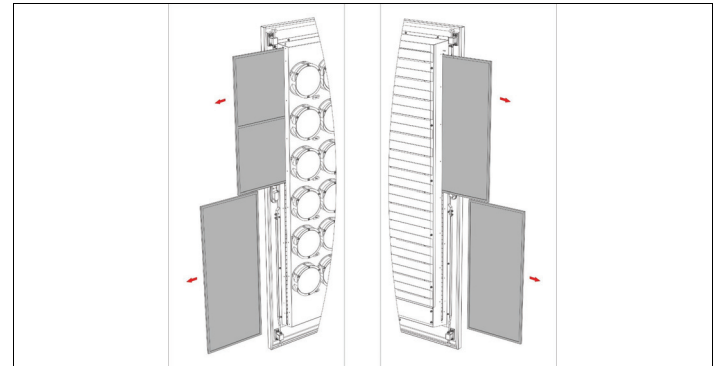
2. Remove the left and right cover plates and their installation screws (M14*16) with an electric screwdriver.



The left cover plate shall be lifted up for about 20 mm, and then taken out. Do not lose the cover plate and installation screw. They will be used in future installation.



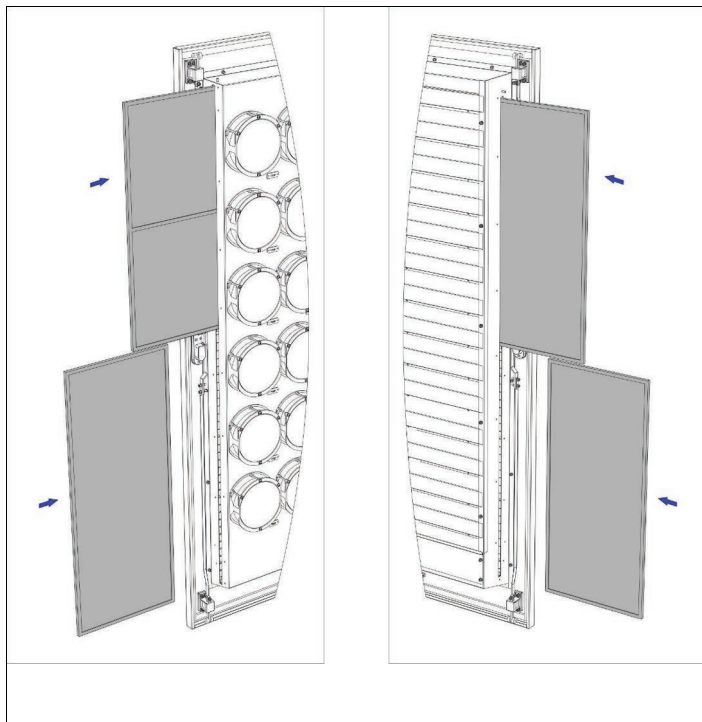
3. Use the drawing pipe of dust filter to draw out the old dust filter and scrap it.



4. Insert the new dust filter with the same specification into the left and right side door respectively.



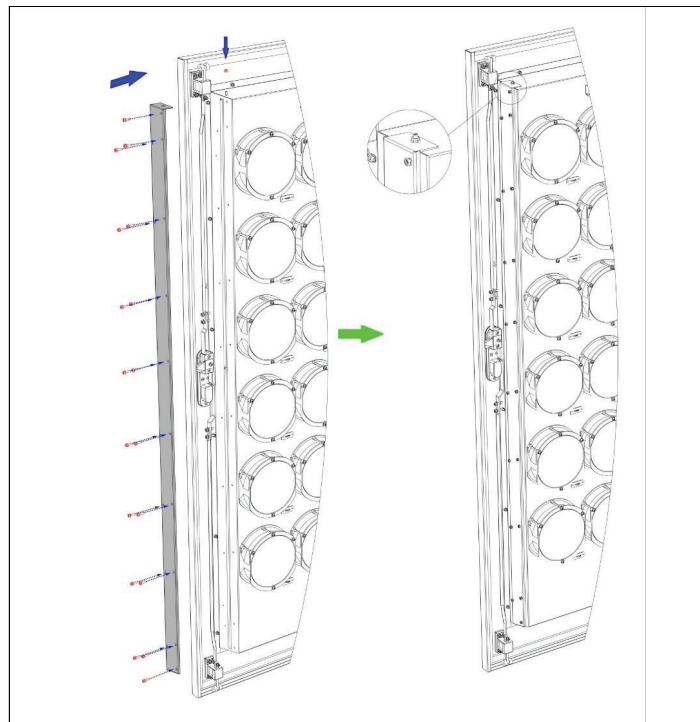
One end of the pull ring is kept outside for the next change.

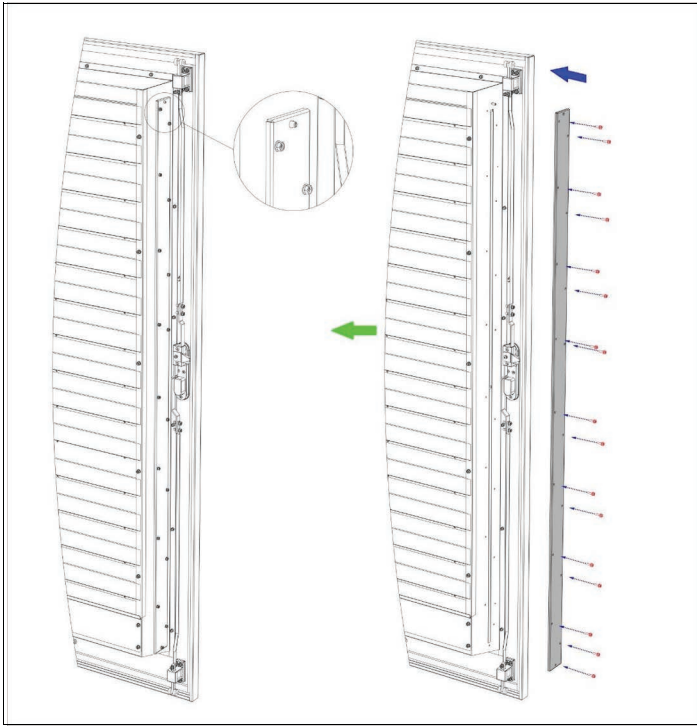


5. Install the side cover plate and lock the screw (M14*16). The reference torque of screw tightening: 16kgf. cm.



The top of the cover plate shall be hung first for installation of the left cover plate, as shown in the figure. And then install the screw.





6. The dust filter has been replaced.

Troubleshooting

ZCharger 160 CE

No	Content of Failure	Cause of failure	Method of treatment
1	Abnormal Communication of control panel	<ul style="list-style-type: none"> The connection of CAN bus between TCU and controller of charging pile is loose. 	<ul style="list-style-type: none"> Use a multimeter to check whether the CAN communication line between TCU and the charging controller is connected abnormally, whether the matching resistance is connected reliably, and whether the shield layer or the communication line is effectively grounded.
		<ul style="list-style-type: none"> Error of CCU address setting. 	<ul style="list-style-type: none"> Check CCU address, dial No. 4 for No. 1 CCU, and dial No. 3 for No.2 CCU.
		<ul style="list-style-type: none"> The anti-interference ability of CAN bus is not good or the bus matching resistance has a problem. 	<ul style="list-style-type: none"> Replacement test. Change if TCU is damaged.
2	Electric meter communication failure	<ul style="list-style-type: none"> The connection between CCU and electric meter is loose. 	<ul style="list-style-type: none"> Check whether the connection between CCU and electric meter is loose.
		<ul style="list-style-type: none"> Electric meter failure. 	<ul style="list-style-type: none"> Check whether the electric meter address, baud rate, check bit and stop bit are set properly. Replacement test. If it has a failure, the electric meter shall be replaced.
3	Action failure for emergency stop button	<ul style="list-style-type: none"> The emergency stop button of the charging pile is pressed emergency stop button in the normal state, and the button has not been restored since it was pressed. 	<ul style="list-style-type: none"> Turn the emergency stop button clockwise to return to normal.
			<ul style="list-style-type: none"> Replacement test. The damaged emergency stop button shall be replaced.
4	Lightning protector failure	<ul style="list-style-type: none"> The lightning protector is damaged. 	<ul style="list-style-type: none"> Replacement test. The damaged lightning protector shall be replaced.
5	DC lightning protector failure	<ul style="list-style-type: none"> The lightning protector is damaged. 	<ul style="list-style-type: none"> Replacement test. The damaged lightning protector shall be replaced.

No	Content of Failure	Cause of failure	Method of treatment
6	Access control failure	• The door is not closed.	• Close and lock the door again.
		• The line of the micro-motion travel switch is not inserted or damaged.	• Check whether the line of the micro-motion trip switch is inserted properly and the spring status is normal.
7	Off-line	• Check whether the router has a network or the signal of the station is weak.	• Check whether there is a network with a router directly connected to the laptop. Contact the local operator if not.
		• Check whether the TCU network setting is correct. (local IP, subnet mask, gateway, pile number, domain name address)	• Re-set the correct parameters if the TCU network settings are wrong.
		• The background is abnormal.	• Contact the background for background state;
8	Black screen	• Whether the power supply of TCU is lower than 12V.	• The auxiliary power supply is damaged or the connection is wrong. Check the wiring. If the wiring is correct, replace the auxiliary power supply.
		• The power cord between the TCU and the display screen is loose.	• Tighten the power cord between the TCU and the display screen again.
		• The display screen is damaged.	• If it is damaged, replace the display screen.
9	Over-temperature failure of charging pile	• There is dust accumulation on the dust screen at the outlet.	• Remove the dust accumulation on the dust screen.
		• The internal temperature of the charging pile is too high.	• Detect whether the fan at the air outlet has a failure and whether there is dust accumulation at the air inlet.
10	DC Contactor failure	• The DC contactor is adhered.	• Replace the DC contactor.
		• The DC contactor refuses to move or makes a false action.	• Replace the DC contactor.
11	Output fuse failure	• The fuse is damaged.	• Replace the fuse.
12	Incoming circuit breaker status failure/Electric leakage failure of incoming circuit breaker	• The electric leakage protection of the circuit breaker trips.	• Check whether the electric leakage current of the charging pile exceeds the electric leakage protection threshold of the circuit breaker. If so, contact the manufacturer.

No	Content of Failure	Cause of failure	Method of treatment
13	Input undervoltage failure	<ul style="list-style-type: none"> The grid voltage fluctuates and the input voltage is lower than the input voltage protection threshold of the charging pile. 	<ul style="list-style-type: none"> Use a multimeter to measure whether the input three-phase voltage is lower than the protection threshold of input voltage of the charging pile. If so, contact the local power grid or temporarily reduce the input voltage protection threshold of the charging pile.
		<ul style="list-style-type: none"> Sampling error of the charging pile. 	<ul style="list-style-type: none"> Contact the manufacturer for handling.
14	Input overvoltage failure	<ul style="list-style-type: none"> The grid voltage fluctuates and the input voltage exceeds the protection threshold of input voltage of the charging pile. 	<ul style="list-style-type: none"> Use a multimeter to measure whether the input three-phase voltage exceeds the protection threshold of input voltage of the charging pile. If so, contact the local power grid or temporarily raise the input voltage protection threshold of the charging pile.
		<ul style="list-style-type: none"> Sampling error of charging pile. 	<ul style="list-style-type: none"> Contact the manufacturer for handling.

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Error code	Content of Failure	Cause of failure	Method of treatment
1000	Abnormal Communication of control panel	<ul style="list-style-type: none"> The connection of CAN bus between MCU and controller of charger is loose. 	<ul style="list-style-type: none"> Use a multimeter to check whether the CAN communication line between MCU and the charging controller is connected abnormally, whether the matching resistance is connected reliably, and whether the shield layer of the communication line is effectively grounded.
		<ul style="list-style-type: none"> Error of CCU address setting. 	<ul style="list-style-type: none"> Check CCU address, dial No. 4 for No. 1 CCU, and dial No. 3 for No. 2 CCU.
		<ul style="list-style-type: none"> The anti-interference ability of CAN bus is not good or the bus matching resistance has a problem. 	<ul style="list-style-type: none"> Replacement test. Change if MCU is damaged.
56	Electric meter communication failure	<ul style="list-style-type: none"> The connection between CCU and electric meter is loose. 	<ul style="list-style-type: none"> Check whether the connection between CCU and electric meter is loose.
		<ul style="list-style-type: none"> The electric meter address, baud rate, check bit, stop bit and other settings have problems. 	<ul style="list-style-type: none"> Check whether the electric meter address, baud rate, check bit and stop bit are set properly.
		<ul style="list-style-type: none"> Electric meter failure 	<ul style="list-style-type: none"> Replacement test. If it has a failure, the electric meter shall be replaced.
1	Action failure for emergency stop button	<ul style="list-style-type: none"> The emergency stop button of the charger is pressed emergency stop button in the normal state, and the button has not been restored since it was pressed. 	<ul style="list-style-type: none"> Turn the emergency stop button clockwise to return to normal. Replacement test. The damaged emergency stop button shall be replaced.
7	Lightning protector failure	<ul style="list-style-type: none"> The lightning protector is damaged. 	<ul style="list-style-type: none"> Replacement test. The damaged lightning protector shall be replaced.
41	DC lightning protector failure	<ul style="list-style-type: none"> The lightning protector is damaged. 	<ul style="list-style-type: none"> Replacement test. The damaged lightning protector shall be replaced.
32	Access control failure	<ul style="list-style-type: none"> The door is not closed. 	<ul style="list-style-type: none"> Close and lock the door again
		<ul style="list-style-type: none"> The line of the micro-motion travel switch is not inserted or damaged 	<ul style="list-style-type: none"> Check whether the line of the micro-motion trip switch is inserted properly and the spring status is normal

Error code	Content of Failure	Cause of failure	Method of treatment
	Off-line	<ul style="list-style-type: none"> • Check whether the router has a network or the signal of the station is weak • Check whether the MCU network setting is correct (local IP, subnet mask, gateway, pile number, domain name address) • The background is abnormal 	<ul style="list-style-type: none"> • Check whether there is a network with a router directly connected to the laptop. Contact the local operator if not • Re-set the correct parameters if the MCU network settings are wrong • Contact the background for background state
203	Black screen	<ul style="list-style-type: none"> • Whether the power supply of MCU is lower than 12V • The power cord between the MCU and the display screen is loose • The display screen is damaged 	<ul style="list-style-type: none"> • The auxiliary power supply is damaged or the connection is wrong. Check the wiring. If the wiring is correct, replace the auxiliary power supply • Tighten the power cord between the MCU and the display screen again • If it is damaged, replace the display screen
11	Over-temperature failure of charger	<ul style="list-style-type: none"> • There is dust accumulation on the dust screen at the outlet • The internal temperature of the charger is too high 	<ul style="list-style-type: none"> • Remove the dust accumulation on the dust screen • Detect whether the fan at the air outlet has a failure and whether there is dust accumulation at the air inlet.
3 (A/A+B)	DC Contactor failure	<ul style="list-style-type: none"> • The DC contactor is adhered • The DC contactor refuses to move or makes a false action 	<ul style="list-style-type: none"> • Replace the DC contactor
4	Output fuse failure	<ul style="list-style-type: none"> • The fuse is damaged 	<ul style="list-style-type: none"> • Replace the fuse
42/43	Incoming circuit breaker status failure/Electric leakage failure of incoming circuit breaker	<ul style="list-style-type: none"> • The electric leakage protection of the circuit breaker trips 	<ul style="list-style-type: none"> • Check whether the electric leakage current of the charger exceeds the electric leakage protection threshold of the circuit breaker. If so, contact the manufacturer.
15	Input overvoltage failure	<ul style="list-style-type: none"> • The grid voltage fluctuates and the input voltage exceeds the protection threshold of input voltage of the charger • Sampling error of charger 	<ul style="list-style-type: none"> • Use a multimeter to measure whether the input three-phase voltage exceeds the protection threshold of input voltage of the charger. If so, contact the local power grid or temporarily raise the input voltage protection threshold of the charger • Contact the manufacturer for handling

Error code	Content of Failure	Cause of failure	Method of treatment
16	Input undervoltage failure	<ul style="list-style-type: none"> <li data-bbox="416 120 871 216">• The grid voltage fluctuates and the input voltage is lower than the input voltage protection threshold of the charger. <li data-bbox="416 221 703 244">• Sampling error of the charger. 	<ul style="list-style-type: none"> <li data-bbox="893 120 1514 216">• Use a multimeter to measure whether the input three-phase voltage is lower than the protection threshold of input voltage of the charger. If so, contact the local power grid or temporarily reduce the input voltage protection threshold of the charger. <li data-bbox="893 221 1257 244">• Contact the manufacturer for handling.

Emergency unlock

Introduction

This section shows how to detach the connector when it cannot be removed under some abnormal situation.

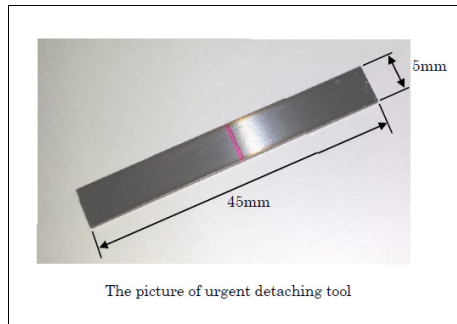
It may be caused by malfunction of electric lock, and in order to detach the connector you need to release the electric lock using the tool below.

Caution

Make sure to “TURN OFF POWER” before using the tool.

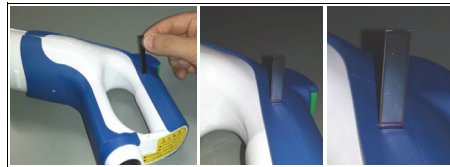
Please take care not to damage your car.

Tool

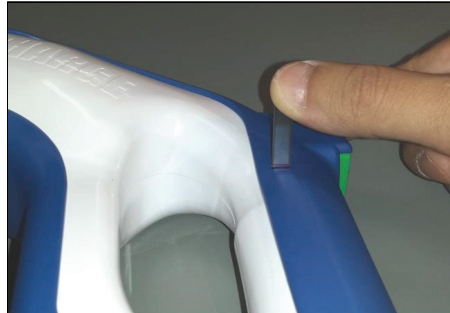


Procedure

1. Insert the urgent detaching tool in the hole for urgent detaching at the side of the connector grip. Make the RED LINE on the tool align with the surface of the grip.



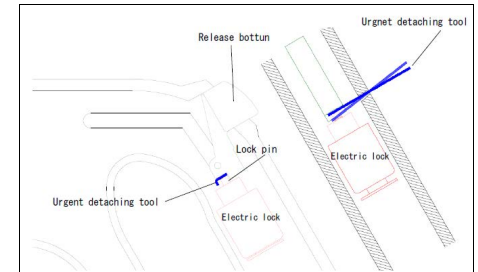
2. Then, push to lean the tool to upper side of connector. (See the yellow arrow in the picture)



3. Then, remove the tool, push release button and pull out the connector.

Mechanism

The connector is locked and cannot be removed when the lock pin sticks out from the electric lock. In an abnormal situation if the lock pin does not retract for some reason, you can detach the connector by forcibly retracting the lock pin using the tool.



Disposal

General

When developing products and services, Atlas Copco tries to understand, address, and minimize the negative environmental effects that the products and services may have, when being manufactured, distributed, and used, as well as at their disposal.

Recycling and disposal policy are part of the development of all Atlas Copco products. Atlas Copco company standards determine strict requirements.

Selecting materials the substantial recyclability, the disassembly possibilities and the separability of materials and assemblies are considered as well as the environmental perils and dangers to health during the recycling and disposal of the unavoidable rates of not recyclable materials.

Your Atlas Copco ZCharger consists for the most part of metallic materials, that can be remelted in steelworks and smelting works and that is therefore almost infinite recyclable. The plastic used is labelled; sorting and fractioning of the materials for recycling in the future is foreseen.



This concept can only succeed with your help. Support us by disposing professionally. By assuring a correct disposal of the product you help to prevent possible negative consequences for environment and health, that can occur with an inappropriate waste handling.

Recycling and re-usage of material helps to preserve natural resources.

Disposal of materials

Dispose contaminated substances and material separately, according to local applicable environmental legislation.

Before dismantling a machine at the end of its operating lifetime drain all fluids and dispose of according the applicable local disposal regulations.


Remove the batteries. Do not throw batteries into the fire (explosion risk) or into the residual waste. Separate the machine into metal, electronics, wiring, hoses, insulation and plastic parts.

Dispose all components according to the applicable disposal regulations.

Remove spilled fluid mechanically; pick up the rest with absorbing agent (for example sand, sawdust) and dispose it according the applicable local disposal regulations. Do not drain into the sewage system or surface water.

Directive 2012/19/EU of the European parliament and of the council on waste electrical and electronic equipment (WEEE)

This equipment falls under the provisions of the European Directive 2012/19/EU on waste electrical and electronic appliances (WEEE) and may not be disposed as unsorted waste.

 **The equipment is labelled in accordance with the European Directive 2012/19/EU with the crossed-out wheel bin symbol.**
At the end of life-time of the electric and electronic equipment (EEE) it must be taken to separate collection.

For more information check with your local waste authority, customer center or distributor.



Scan the QR code to access into the Atlas Copco Power Connect site.

Enter the machine serial number to get the Atlas Copco Spare Parts List (ASL).

