



USER'S MANUAL



EV CHARGER CARO PLUS

1PH 7KW 3PH 11KW



ZUCCHETTI
Centro Sistemi



EV CHARGE CARO PLUS

1PH 7kW/3PH 11kW

User Manual



General instructions

This manual contains important safety instructions that must be followed during installation and maintenance of the equipment.

Please keep these instructions!

This manual must be considered an integral part of the equipment, and must be available at all times to everyone who interacts with the equipment. The manual must always accompany the equipment, even when it is transferred to another user or plant.

Copyright statement

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Technical support

ZCS offers a support and technical consultancy service accessible by sending a request directly from the website www.zcsazzurro.com

The following toll-free number is available for the Italian territory: 800 72 74 64.

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Preface

General information

Please read this manual carefully before installation, use or maintenance. This manual contains important safety instructions that must be followed during installation and maintenance of the system.

Scope

This manual describes the assembly, installation, electrical connection, commissioning, maintenance and troubleshooting of the EV CHARGE CARO series:

1PH 7kW PLUS

3PH 11kW PLUS

Keep this manual so that it is accessible at all times.

Recipients

This manual is intended for qualified technical personnel (installers, technicians, electricians, technical support personnel or anyone who is qualified and certified to work on an electrical system), responsible for installing, starting up and operating the charging station.

Symbols used

This manual provides information for safe operation and uses certain symbols to ensure the safety of personnel and materials, and for efficient use of the equipment during normal operation. It is important to understand this information to avoid accidents and damage to property. Please take note of the following symbols used in this manual.



Danger

Danger: indicates a hazardous situation which, if not resolved or avoided, could result in serious personal injury or death

	Warning: indicates a hazardous situation which, if not resolved or avoided, could result in serious personal injury or death
Warning	
	Caution: indicates a hazardous situation which, if not resolved or avoided, could result in minor or moderate personal injury
Caution	
	Attention: indicates a potentially hazardous situation which, if not resolved or avoided, could result in damage to the system or other property
Attention	
	Note: provides important tips on the correct and optimal operation of the product
Note	

1. Safety instructions



Note

If you have problems or questions in reading and understanding the following information, please contact Zucchetti Centro Sistemi S.p.A. through the appropriate channels.

1.1. Important Safety and Legal Information

Read this entire manual before installation or operation. Failure to do so may result in death, serious injury, or property damage.

Intended Audience

- Qualified electricians performing the installation.
- End-users operating the charger.

Qualified Personnel

- Installation, commissioning, and maintenance must be performed by a qualified and licensed electrician in accordance with all local and national electrical codes and regulations.

Disclaimer of Liability

The manufacturer is not liable for damages, injuries, or failures resulting from:

- Improper installation, operation, or maintenance.
- Failure to follow the instructions in this guide.
- Modifications or repairs by unauthorized personnel.
- Use of non-compatible or faulty equipment.

Warranty Notice

- Any damage caused by incorrect installation voids the product warranty.
- The guide is for reference only and does not serve as a warranty of any kind.



Note

Some functions may be subject to change, according to the charger's latest software updates.

1.2. Glossary of Symbols & Terms

Save these instructions. Read all instructions before installing or using the charger.

	DANGER! Indicates an imminently hazardous situation, which will result in death or serious bodily injury if the corresponding precautions are not taken.
	WARNING! Indicates a potentially hazardous situation, which can result in death or serious bodily injury if the corresponding precautions are not taken.
	CAUTION! Means that if the corresponding safety measures are not taken, a potentially hazardous situation can occur that may result in slight bodily injury.
	CAUTION! Means that damage to property can occur if the corresponding safety measures are not taken.
	NOTE! A note gives more data or gives some tips, to make it easier to do the steps.



Term	Description
OCP	Open Charge Point Protocol: A
SPD	Surge Protection Device
RCD	Residual Current Device
PE	Protective Earth
IP65	Ingress Protection rating
CPMS	Charge point Management System
CE	Conformité Européenne
RoHS	Restriction of Hazardous Substance
RFID	Radio Frequency Identification
EV	Electric Vehicle
AP mode	Access Point Mode
AC	Alternating Current
PIN	Personal Identification Number



1.3. General Warnings

- Installation, commissioning, and service must only be performed by qualified and licensed electricians, in accordance with local laws and regulations.
- The charger must only be used to charge compatible electric vehicles. Do not connect to any other device or equipment.
- Do not attempt to disassemble, repair, tamper with, or modify the charger. The unit is not user-serviceable. Contact authorized service personnel for any repairs.
- Improper installation or use may result in fire, electric shock, injury, or equipment damage.

1.4. Installation Safety

- Disconnect all upstream power (circuit breaker/rcbo) before installation, maintenance, or cleaning.
- Ensure the installation surface is solid, flat, and capable of supporting the charger's weight.
- Mount the charger at the recommended installation height and provide sufficient clearance for ventilation and cable handling.
- Use only approved copper conductors of the correct cross-sectional area. Ensure all terminations are tightened to specified torque values.
- Do not coil, twist, weld, or extend cables improperly. Keep cables away from sharp edges and heat sources.
- Seal unused cable entry points to maintain enclosure protection (ip rating).
- Ensure proper grounding through a permanent wiring system or protective earth conductor.
- Install surge protection devices (spd) if required by local regulations. Ensure the upstream breaker or emergency stop switch is clearly labeled and easily accessible.

1.5. Environmental Safety

- Do not install or operate the charger near flammable, explosive, or corrosive materials, vapors, or steam.
- Do not install in areas with strong magnetic fields, wireless transmitters, or direct sunlight.
- Avoid locations exposed to flooding, heavy rain, or extreme weather beyond the charger's specified ratings.
- For indoor multi-charger installations, ensure adequate ventilation is provided.

1.6. Operating Safety

- Always follow the instructions in the vehicle manufacturer's manual before charging.
- Ensure the vehicle is turned off before connecting or disconnecting the charging connector.
- Insert the charging connector fully and securely into the vehicle inlet before starting a charging session.
- Do not use the charger, cable, or connector if damaged, cracked, frayed, or malfunctioning.
- Never use the charger if the enclosure, connector, or cable shows signs of water ingress.
- Do not spray liquids onto the charger or submerge the connector in water.
- Do not handle the charger or connector with wet hands.
- Keep children and pets away from the charger and charging cable. Do not allow them to play near or with the equipment.
- Arrange charging cables to prevent tripping hazards or obstruction.
- Handle the charger and cable with care. Do not drop, step on, crush, fold, or apply pressure with sharp objects.
- Store the charging connector in its holster when not in use to avoid contamination or moisture ingress.
- Radio waves from the charger may interfere with implanted medical devices such as pacemakers, cochlear implants, and hearing aids. Consult your medical device manufacturer before use.
- Adaptors or conversion adapters are not allowed to be used.
- Cord extension sets are not allowed to be used.

1.7. Fire and overheating protection

- Do not cover or obstruct the charger during operation.
- Stop using the charger immediately if you notice smoke, unusual smells, sparks, or excessive heat. Disconnect power from the upstream breaker or emergency stop switch and contact service personnel.
- Do not exceed the rated load capacity of the charger or site electrical system.

1.8. Emergency situations

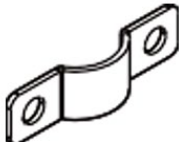
In case of fire, smoke, or electric shock:

- Immediately stop charging using the vehicle controls or emergency stop switch.
- Disconnect power at the upstream breaker if safe to do so.
- Evacuate the area and contact emergency services.
- If the charger has been submerged, struck by lightning, or physically damaged (e.g., by vehicle impact), do

not use it until inspected and approved by qualified service personnel.

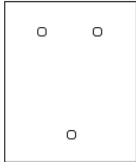
1.9. Mounting parts

Upon receipt of the product, please verify the accessories against the list below. If any items are missing, contact us immediately.

No.	Item	Icon	Quantity	
			7kW	11kW
1	M4*32mm screw		7	7
2	Wall plug		7	7
3	Bootlace ferrule		4	6
4	M28 Cable grommet		1	1
5	Rubber plug		1	1
6	Cable clip		1	1





7	M3*12 screw		3	3
8	Cable holder		1	1
9	Quick guide		1	1
10	RFID card		2	2
11	M25 cable grommet		1	1
12	M20 cable grommet		1	1
13	Drilling template diagram		1	1



Qualified personnel

Ensure that the operator has the necessary skills and training to operate the equipment. Personnel responsible for use and maintenance of the equipment must be qualified and capable of performing the activities described, and must also have appropriate knowledge on how to correctly interpret the contents of this manual. For safety reasons, this charging station can only be installed and serviced by a qualified electrician with the necessary training and/or skills and knowledge. Zucchetti Centro Sistemi S.p.A. declines all responsibility for damage to property or personal injury caused by incorrect use of the device.

Do not attempt in any way to repair or replace components of the charging station without the assistance of qualified personnel.

Installation requirements

Install and start the charging station according to the following instructions. Place the charging station on suitable load-bearing supports with sufficient load capacity (such as metal walls or columns) and make sure it is positioned vertically. Choose a suitable location for the installation of the electrical equipment. Make sure there is sufficient space for heat dispersion and to accommodate future maintenance. Maintain adequate ventilation and ensure that there is enough air circulation for cooling.

The charging station display must not be exposed directly to sunlight.

	Do not place the charging station near explosive, flammable materials, chemical vapours or potentially hazardous materials.
Danger	



Figure 1 – Do not lose or damage this manual

Transport requirements

If you encounter problems with the packaging that could damage the charging station or if you find any visible damage, immediately notify the transport company. If necessary, request assistance from an installer or from Zucchetti Centro Sistemi S.p.A. Transport of the equipment, especially by road, must be carried out with vehicles suitable to protect the components (in particular, electronic components) against violent knocks, humidity, vibrations, etc.

Electrical connections

Please follow all the electrical regulations on accident prevention.

	Before connecting the electrical cables, make sure to properly disconnect the voltage on the AC connection cables, and do not connect any charging cables for electric vehicles.
Danger	
	All installation operations must be carried out by a professional electrician, who has carefully read this manual and understands its contents!
Warning	
	Before connecting the charging station to the grid, make sure that all the necessary permits have been obtained from the local grid operator and that all the electrical connections have been completed by a professional electrician.
Attention	
	Do not remove the information label or tamper with the charging station. Otherwise, ZCS will not provide any warranty or assistance
Note	

Operation

Do not use the product if it has any defects, cracks, scratches or leaks, but contact your dealer or ZCS technical service.

	Contact with the electrical grid or the terminal of the equipment may cause electrocution or fire! • Do not touch the terminal or the conductor connected to the electrical grid. • Follow all the instructions and safety requirements relating to grid connection
Danger	
	If the charging station is not functioning properly: • Disconnect the input and output power supply
Warning	
	Take special care when charging in thunderstorms or in rain
Attention	

Maintenance and repair

Keep the charging station clean and dry; if you need to clean it, use a clean dry cloth. It is very dangerous to touch the inside of the charging station, therefore it is strictly forbidden to do so while the system is running. NEVER clean the inside of the charging station with a wet or damp cloth.

	• Before performing any repairs, disconnect the charging station from the power supply (AC side) and from the data connection to the transmission gate. • After switching off the DC switch, wait 5 minutes before carrying out any repairs or maintenance on the charging station
Danger	
	• The charging station should start working again after any faults have been fixed. For repairs, contact your local authorised service centre • Do not disassemble the internal components of the charging station without permission; this will void the warranty.
Attention	

1.10. Symbols and icons

Introduces the main safety symbols on the charging station. Some safety symbols are located on the charging station. Read and understand the contents of the symbols before installation:

	Be careful of high voltage
	Complies with the European Standards
	Ground connection point
	Read this manual before installing the charging station.
	Degree of protection of the equipment according to the IEC 70- 1 standard (EN 60529 June 1997). IP65 means that it is resistant against water and rust, therefore also suitable for outdoor operation and maintenance.

Table 1 – Symbols present on the charger

1.11. Labels

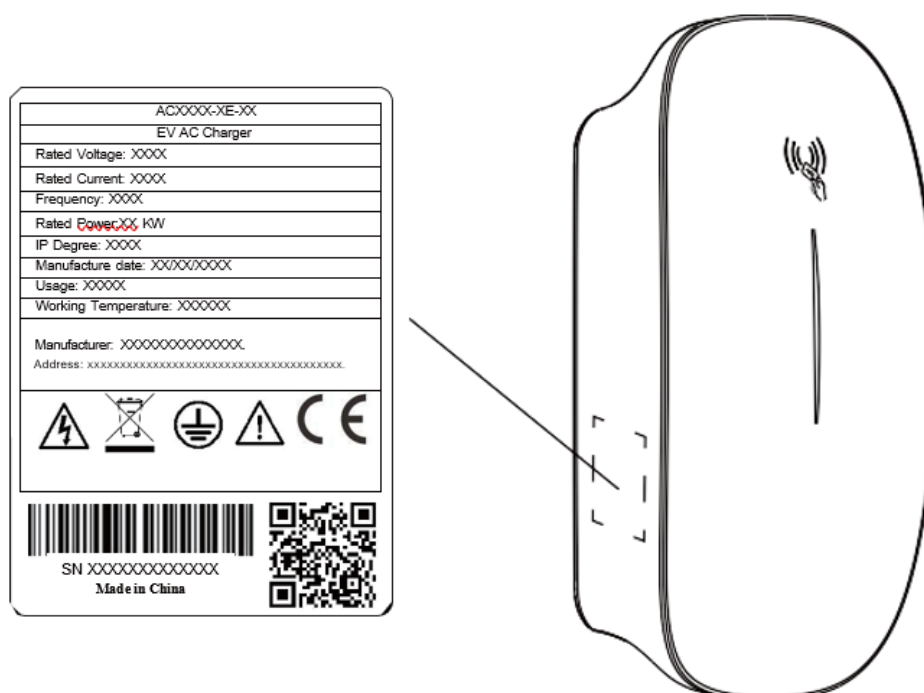


Figure 2 - Labels present on the charging station



DO NOT remove the labels. **DO NOT** cover with sheets, supports, cabinets, etc. Always keep them clean and legible.

2. Product Overview

The Caro Product specified in this document is design for the market to charge European Standard plug-in electric vehicles (PEVs), plug-in hybrid electric vehicles (PHEVs), and battery electric vehicles (BEVs). It provides EU standard Type 2 AC charger cable connector.

The AC EV Charger is a compact charging solution designed for residential use. It supports both wall-mounted and pole-mounted installation, delivering up to 7 kW charging power with a Type 2 connector, and providing safe, efficient, and user-friendly charging for most electric vehicles

2.1. Product Features

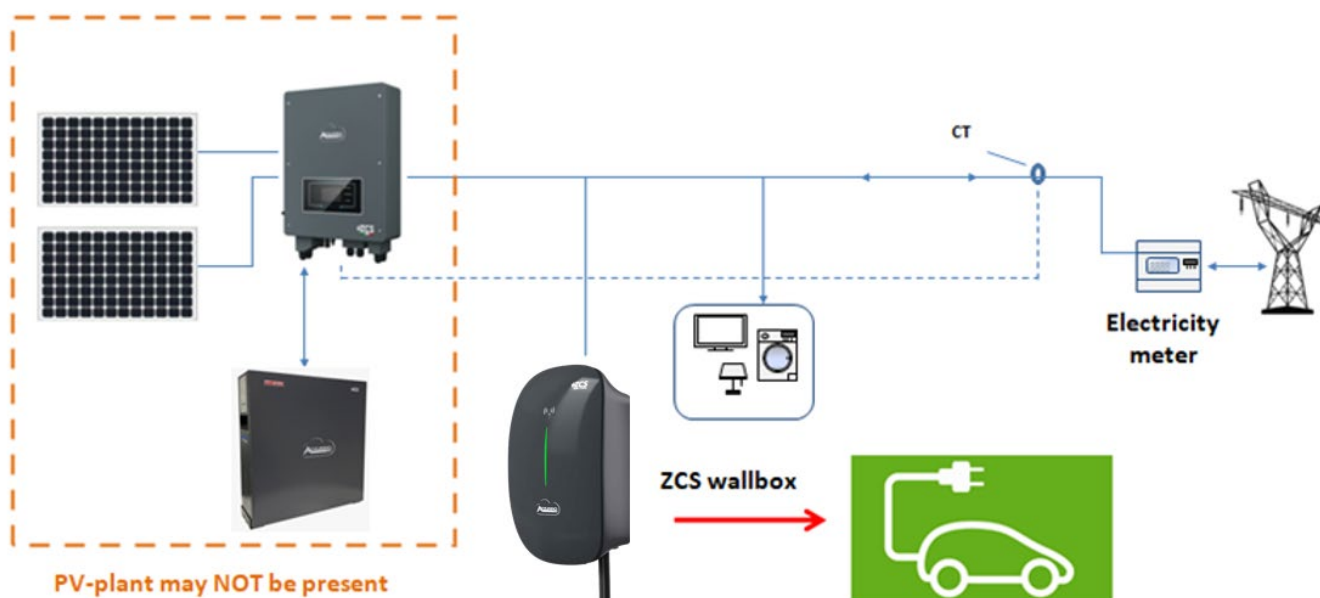


Figure 3 – Example of a charging station connected to a PV system (optional) and grid

- ✓ **Universal Type 2 cable lead.**
- ✓ **Power rating – Up to 7kW or 11kW models.**
- ✓ **Adjustable power rating: 7kW: 6~32A, 11kW: 6~16A.**
- ✓ **Intelligent Authentication:**
 - Support charging user identification on online mode or Bluetooth mode.
 - Smart RFID/Bluetooth/App Authentication.
 - Supports plug to charge while authentication is off.
- ✓ **Multiple charge modes:**
 - Plug to Charge

- General mode: start charging via RFID card, start charging via App
- Remotely start charging via App
- Scheduled charge via App
- Eco Mode*
- EMS compatible*

- ✓ **Built-in LED charging status indicator.**
- ✓ **Network connectivity: WiFi, Ethernet or 4G.**
- ✓ **OCPP 1.6 compliant.**
- ✓ **CE and CB certified.**
- ✓ **Dynamic Load Balancing:**

The Caro Serials charger has a Dynamic Load Balancing capability which is designed to prevent overloads of the property's power supply when a electric vehicles is being charged.

Once correctly installed and configured, the system will monitor the power being drawn by the charging process and will compare this to the permissible maximum for the property as a whole (need to be set). With this information, the power made available for charging can be dynamically adjusted to reduce the load before the property's maximum load is exceeded.

	Load balancing ONLY controls power made available to the VEHICLE. It does not control power to other equipment(home applications) ,and it is still possible that other equipment cause overload the property's power supply. Please address the source of the equipment that actually caused the overloading. Depending on the manufacturer, electric vehicles need a minimum of around 6 Amps to charge. If the available power is below this level, the vehicle may stop the charge session. In order to monitor the total load, extra current transformer / smart meter are needed. The lower the power available for charging, the more slowly the vehicle will be charged.
Attention	

✓ **PV energy utilization**

The Caro Series chargers can utilize photovoltaic generation and energy storage technologies to offer a clean, efficient, and reliable power supply for electric vehicles, thereby diminishing reliance on conventional power grids and fostering the adoption of green energy.

This requires extra accessories, please contact our technical support for more information.

	• PV energy refers to the electricity produced by solar panels that transform sunlight into a usable power source for homes and businesses.
Attention	

✓ **Energy management system (EMS) integration**

The Caro Series chargers are designed with dedicated ports to ensure seamless

integration with various EMS systems, providing flexible energy management solutions.

For details about **EMS** like **ZCS Azzurro HUB**, for the connections and the setting with Azzurro HUB, refer to the Azzurro HUB User Manual, available at www.zcsazzurro.com.

For further information or assistance, please contact the ZCS Azzurro Pre-Sales Technical Support.

	• The Energy Management System (EMS) is like an intelligent butler that monitors your energy usage, automatically adjusts the operation of devices, and uses energy in the most economical and efficient way, while ensuring safety and reducing waste, helping you save money and protect the environment.
Attention	

KEY FEATURES INCLUDE:

Smart connectivity: Supports Wi-Fi, Bluetooth communication, with compatibility for OCPP 1.6.

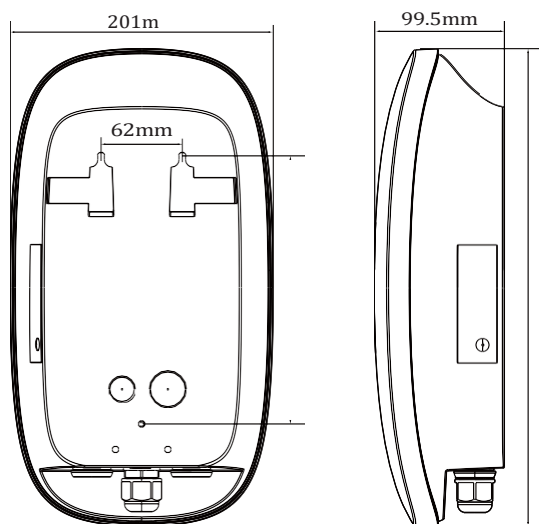
Flexible operation: Multiple start modes available, including Plug to Charge, RFID card, and App-based control.

Advanced safety protection: Integrated overcurrent, residual current (AC/DC), surge, ground, and temperature protection, ensuring safe operation under all conditions.

Durable design: Rated IP65 and IK10, providing excellent resistance against dust, water, and mechanical impact, suitable for both indoor and outdoor use.

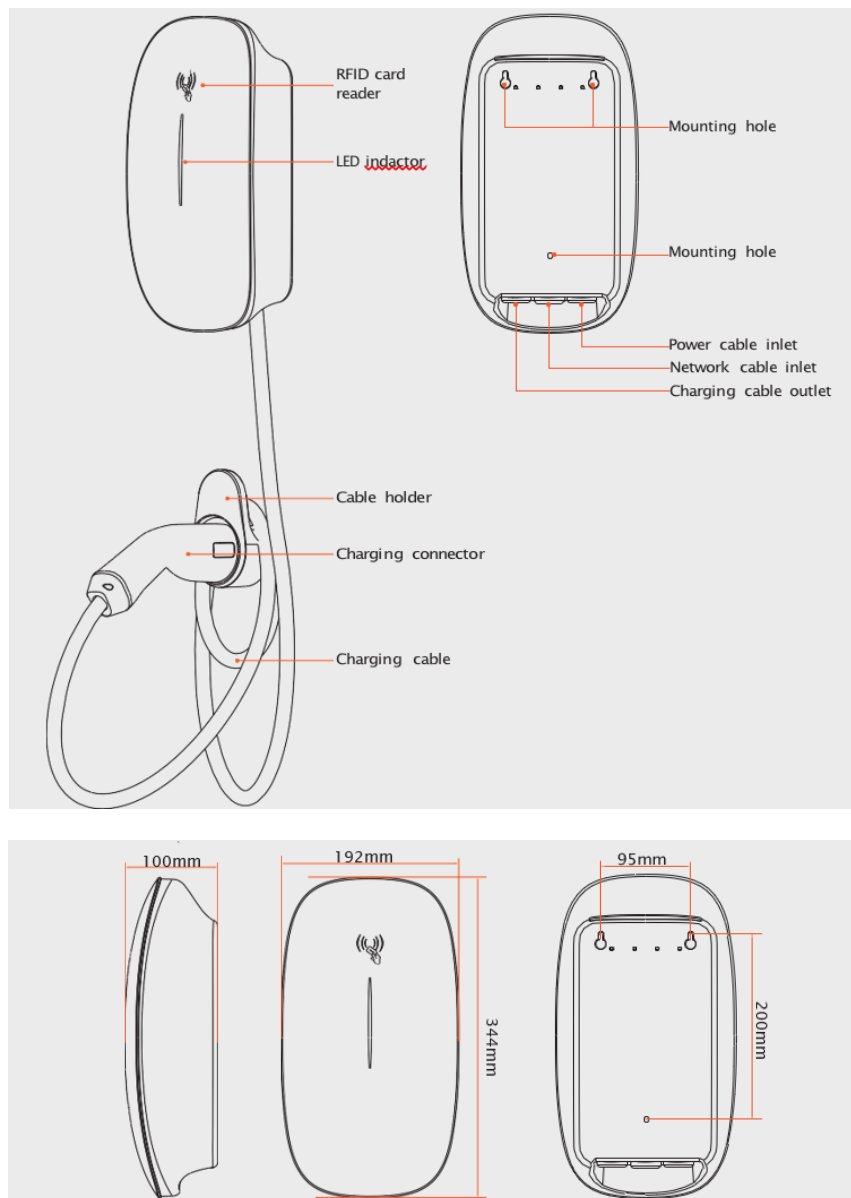
User-friendly interface: Equipped with an LED status indicator and RFID card reader, making charging sessions intuitive and straightforward.

Optional smart functions: Load balancing and PV (solar) charging support, enabling optimized energy management.

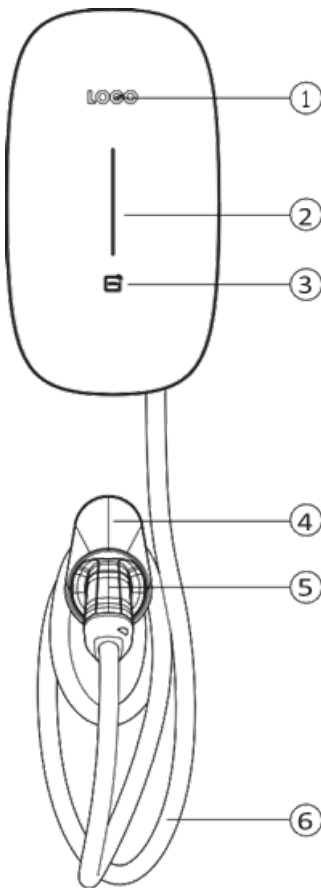


3. Exterior Overview

3.1. Cable Model

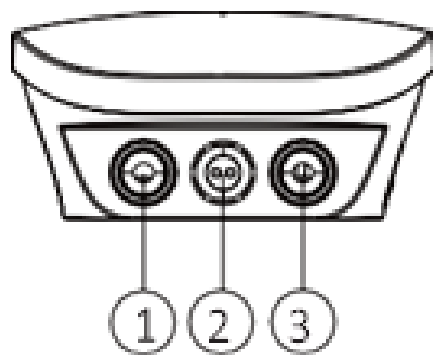


3.2. Front view



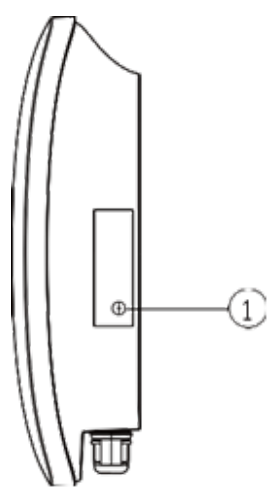
1	Logo
2	Led Indicator
3	RFID card sensor
4	Cable holder
5	Charging connector
6	Charging cable

3.3. Bottom View



1	AC input cable entry
2	Communication cable entry
3	Charging cable entry

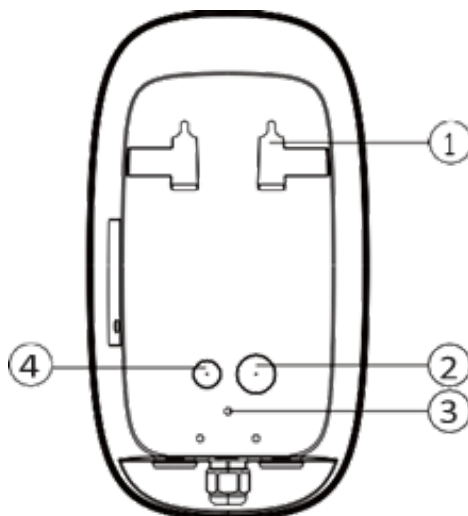
3.4. Side View



1	Reset button
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3.5. Back View



1	Mounting recess
2	Knock-out hole for AC input cable
3	Mounting hole
4	Knock-out hole for communication cable

3.6. Model variant

Model No.	Rating	Connector
ZV1-7K-CARO-CAB-PL	7kW	Type 2 Cable
ZV3-11K-CARO-CAB-PL	11kW	Type 2 Cable

4. Technical Specification

Model	ZV1-7K-CARO-CAB-PL	ZV3-11K-CARO-CAB-PL
Power Supply	1P+N+PE	3P+N+PE
Rated Voltage	230V AC	400V AC
Rated Current	32A	16A
Frequency	50/60Hz	
Rated Power	7kw	11kw
Power Measurement Accuracy	2%	
Charge Connector	Type 2 Cable	
Enclosure	PC943	
Size	365*201*99.5mm(H*W*D)	
Color	Black / White	
Installation	Wall-mount/Pole-mount (Optional)	
LED Indicator	Green/Yellow/Red	
RFID Reader	Mifare Classic ISO/IEC 14443-A	
Start Mode	Plug to Charge/RFID card/App	
Wi-Fi	Support	
Bluetooth	Support	

OCPP	OCPP 1.6 Json
Embedded Leakage Current Protection	AC: 30 mA Type A DC: 6 mA
Impact Protection	IK10
Ingress Protection	IP65
Electrical Protection	Over current protection Residual current protection Ground protection Surge protection Over/Under voltage protection Over/Under frequency protection Over temperature protection
Certification	CE, RoHS, Reach
Certification Standard	EN 300328 V 2.2.2:2019 E N 300330 V 2.1.1:2017 EN 301489-1 V 2.2.3:2019 EN 301489-3 V 2.1.1:2019 EN 301489-17 V 3.2.4:2020 EN IEC 61000-6-1:2019 EN IEC 61000-6-3:2021 EN IEC 61851-1:2019 EN IEC 61851-21-2:2021 EN IEC 62311:2020 EN 18031-1:2024
Warranty	2 years
Operation Temperature	-30°C ~ + 50°C





Work Humidity	5%~95%	
Work Altitude	≤2000m	



5. Installation

 Danger	• DO NOT install the charging station near flammable materials. • DO NOT install the charging station in an area where flammable or explosive materials are stored.
--	--

Before the installation, ensure that:

- ✓ The charger power is within the allowed load range of the place.
- ✓ Cables and RCBOs meet the installation and usage requirements.
- ✓ If the AC input power cable exposed to the outdoor environment is 3m or longer, consult the local installer. You are advised to install a surge protective device (SPD) at the upstream of the charger's RCBO.
- ✓ A network cable that is long enough is prepared if the charger is connected to a wired network.
- ✓ The installation area should be covered by a wireless network if the charger is connected to the network through WiFi.
- ✓ Calculate the existing electrical load to determine the maximum operating current.
- ✓ Calculate the distance to ensure minimal voltage drop.
- ✓ Use only copper conductors.
- ✓ Use copper wire that meets the specifications of local wiring regulations. The selected cable must be capable of withstanding continuous loads of up to 32 amp.
- ✓ The selected circuit protection device must incorporate an appropriate Type A residual current device (RCD) and corresponding electrical overcurrent protection.
- ✓ Install an approved Isolation switch.

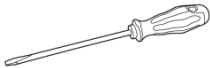
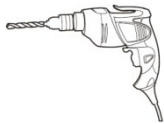
5.1. Required materials

Item	Model	Specification
AC input cable	ZV1-7K-CARO-CAB-PL	6mm2
	ZV3-11K-CARO-CAB-PL	2.5mm2
RCBO	ZV1-7K-CARO-CAB-PL	2P RCBO, C40, 40A, Type A, in compliance with local

		regulations.
	ZV3-11K-CARO-CAB-PL	4P RCBO, C40, 40A, Type A, in compliance with local regulations.
RJ45 cable & connector	7kw	11kw

5.2. Installation tools

The following tools are required for the installation of the charging station and electrical connections; therefore, they must be prepared before installation.

No.	Tool		Function
1		Philips screwdriver PH2	To screw and unscrew screws for the various connections
2		Electric Drill Φ6mm	To drill holes in the wall for fixing
3		Electric screw driver	Fasten the screws
4		Wire cutter	Cut the cable
5		Hydraulic clamp	Clamp the RJ45 connector

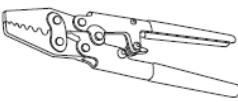
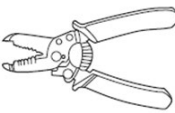
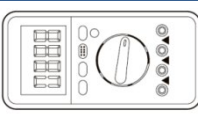
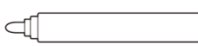
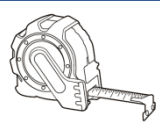
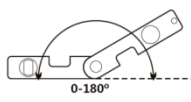
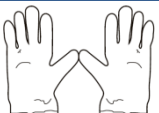
6		Crimping pliers 6mm ² & 2.5mm ²	Clamp cord end terminal
7		Wire stripping tool 6mm ² & 2.5mm ²	To remove the outer sheath of the cables
8		Hammer	Drive the wall plugs into the wall
9		Multi-meter	To check the voltage and current values
10		Marker pen	To mark the wall for better fixing precision
11		Measuring tape	Measure the installation height
12		Level (> 180mm)	To make sure the bracket is level
13		ESD gloves	Protective clothing
14		Safety goggles	Protective clothing

Table 2 – Installation tools



WARNING

The tools are not included with the charger; they are commercially available.

5.3. Confirm installation position

- Ensure that the parking position is within range of the charging cable.
- Ensure there is enough clearance for the charging cable to wrap around the wall charger box.
- Ensure that the charging handle can be comfortably inserted into the side of the wall charger.
- For outdoor installations, provide shelter from persistent rain.
- Install in a well ventilated space.

Avoid installation and enclosed boxes close to high-power appliances and gas bottles.

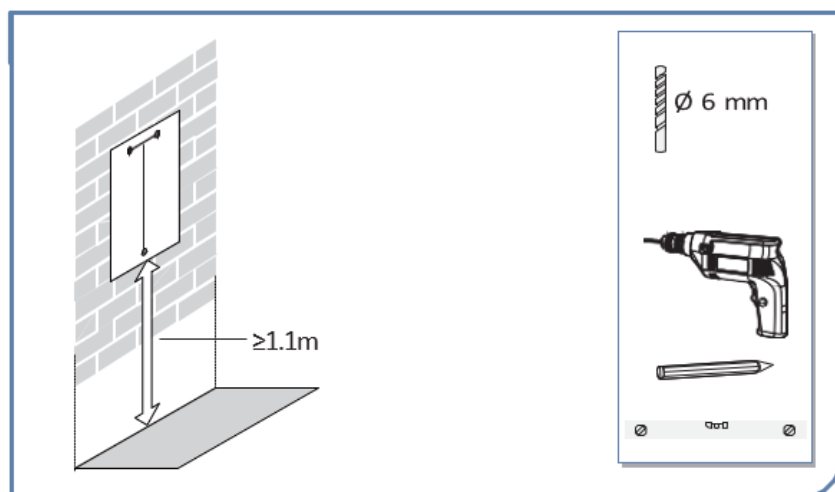
5.4. Drill Holes

Use the mounting template provided in the package.

Align the template on the wall at a height of ≥ 1.1 meters from the ground.

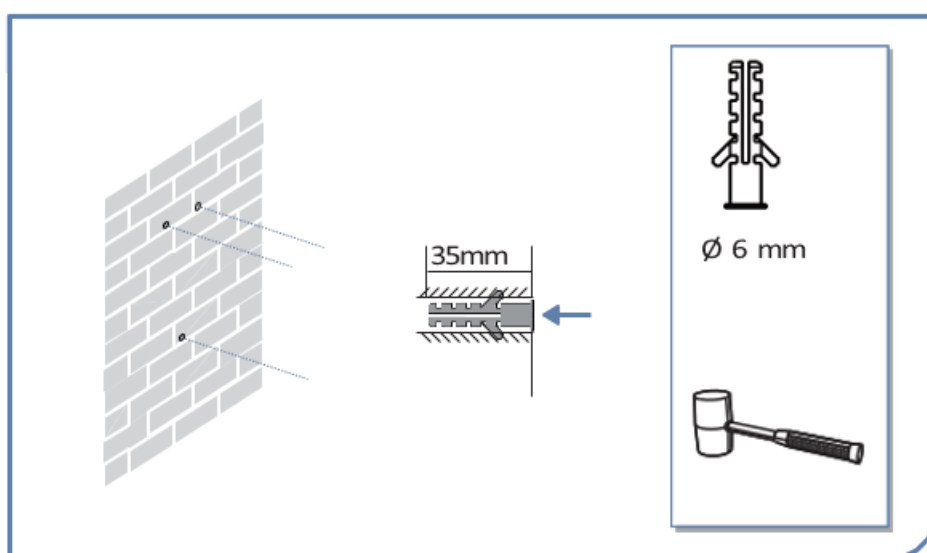
Mark the positions of the three mounting holes using a marker or pencil.

Use a 6mm diameter drill bit to drill three holes, each 35mm deep, at the marked locations.

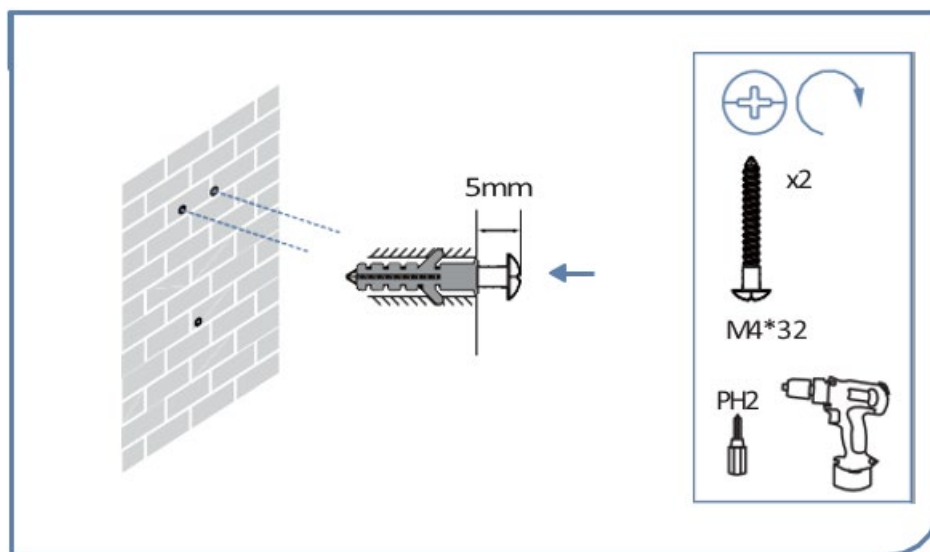


5.4.1. Insert Wall Plug

Insert three wall plugs into the drilled holes.



Insert two M4*32 screws into the upper two wall plugs.

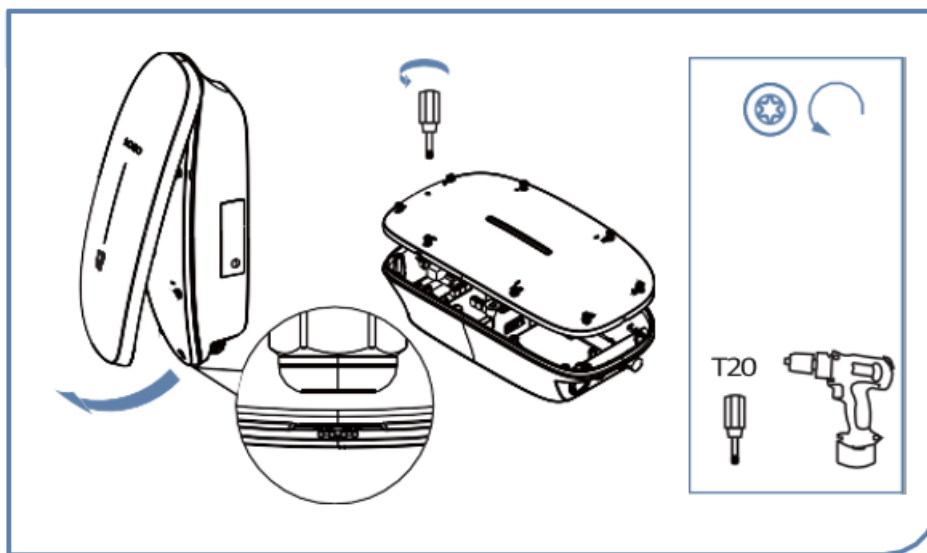


5.4.2. Detach the Cover

Hold the charger firmly and insert your fingers into the notch at the bottom.

Pull the front cover outward by hand to detach it from the core box.

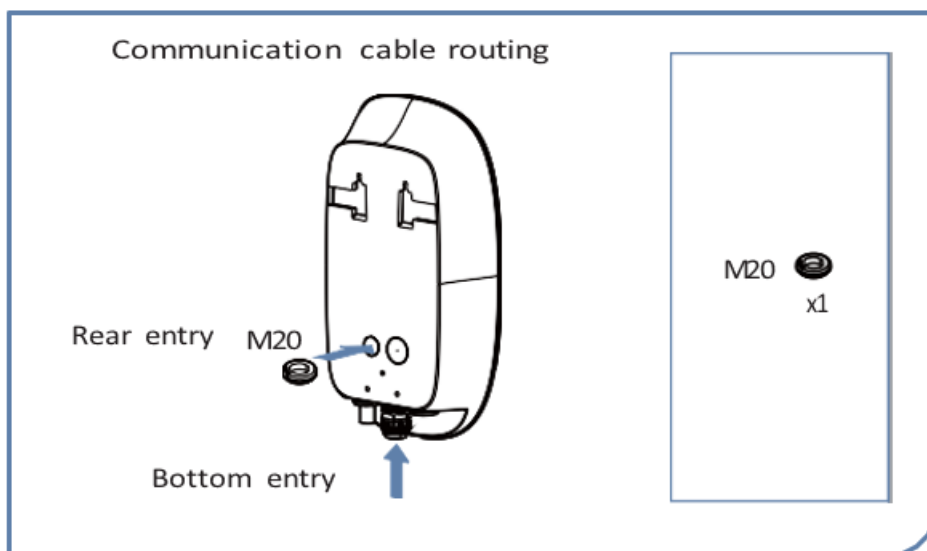
Remove the middle cover by loosening the eight screws that hold it in place.



5.4.3. Confirm the Cable Entry

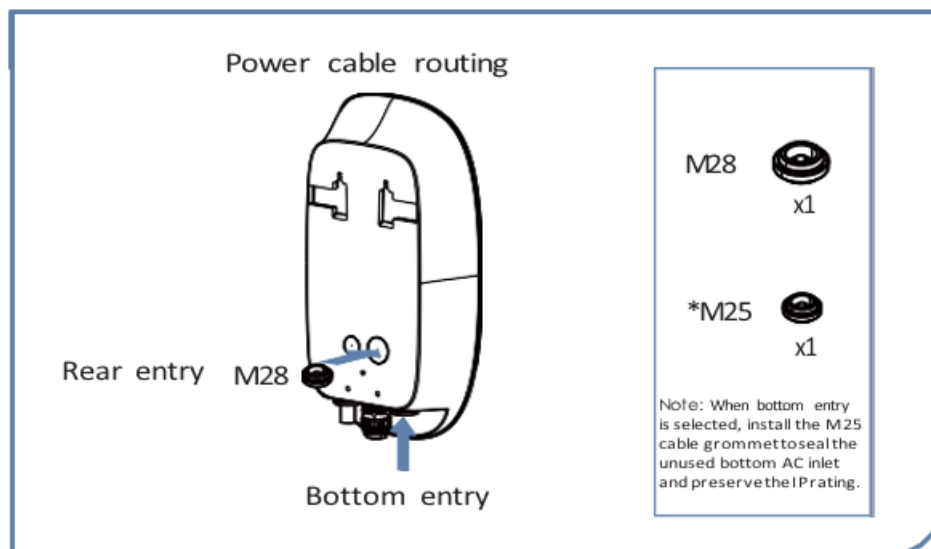
For bottom entry:

- AC input cable: Secure using the provided M28 cable grommet.
- Communication cable: Secure using the equipped cable gland.



For rear entry:

- AC input cable: Punch out the knock-out hole and secure the cable using an M25 cable grommet.
- Communication cable: Punch out the knock-out hole and secure the cable using an M20 cable grommet.

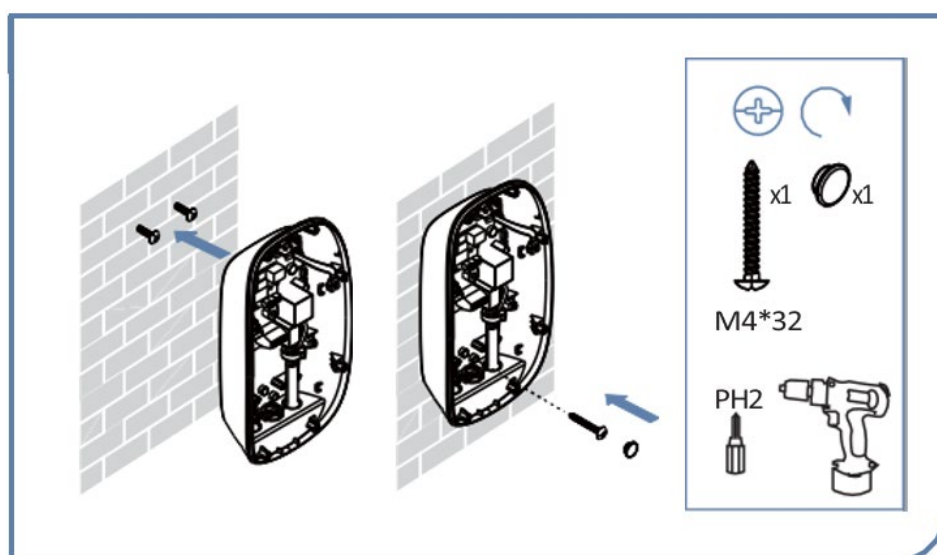


5.4.4. Secure the Enclosure Onto the Wall

Hang the charger onto the upper two screws.

Insert the M4*32mm screw through the hole of the enclosure at the lower middle part.

M4: 0.6~1.2 N.m



5.4.5. Connect AC Input Power Cable



WARNING

Ensure that the power supply is cut off before connecting AC input wire.

Thread the AC input cable into the cable inlet.

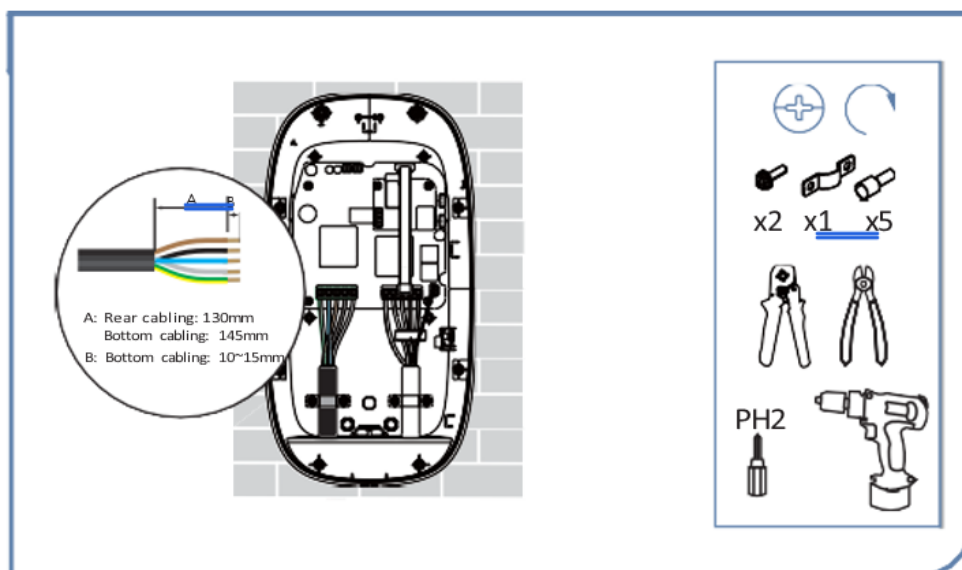
Strip the wires to expose 10mm to 15mm conductor.

Insert the exposed conductor into the bootlace ferrules, and clamp the wire ferrules using a crimping tool.

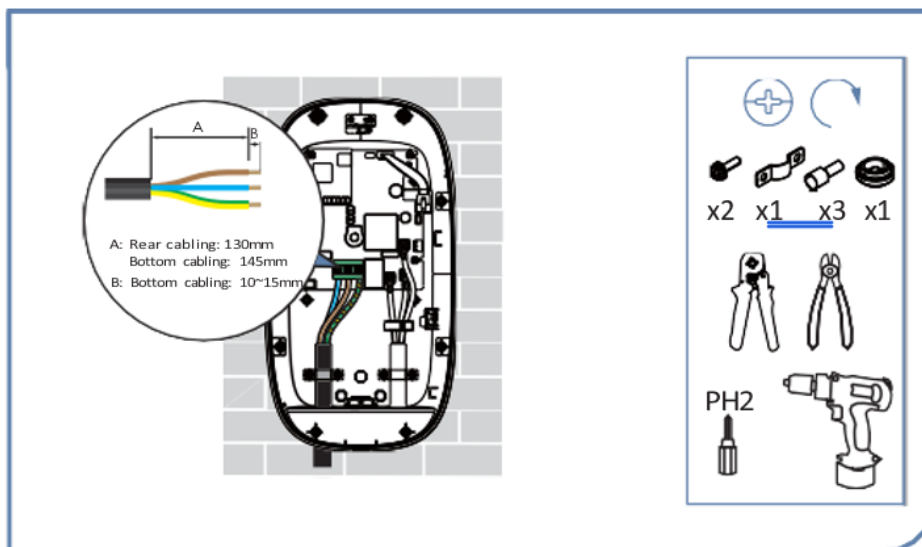
Insert wires with bootlace ferrules into the ports of the terminal block.

Secure the cable with a cable clip and two M3*12 screws.

THREE-PHASE:



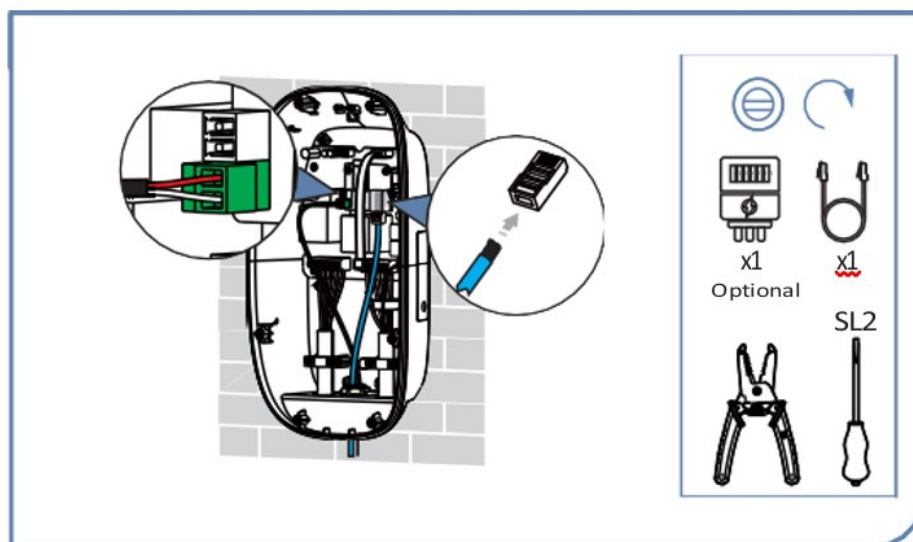
SINGLE-PHASE:



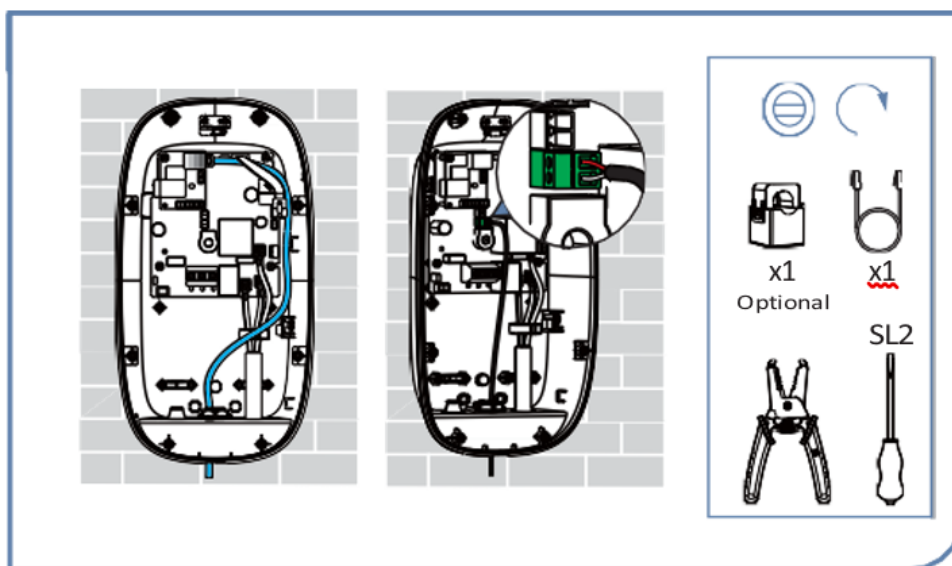
5.4.6. Connect CT & Ethernet Cable & RS485 Cable

The CT and RS485 cables need to be connected only when configuring load balance. Refer to the wiring sequence table in Section 8 for the detailed procedure.

THREE-PHASE:



SINGLE-PHASE:



WARNING

Please ensure the arrow on the CT points to the direction of current flow.



NOTE

CT is required only when load balance and solar charging used.

5.4.7. Reattach the Cover

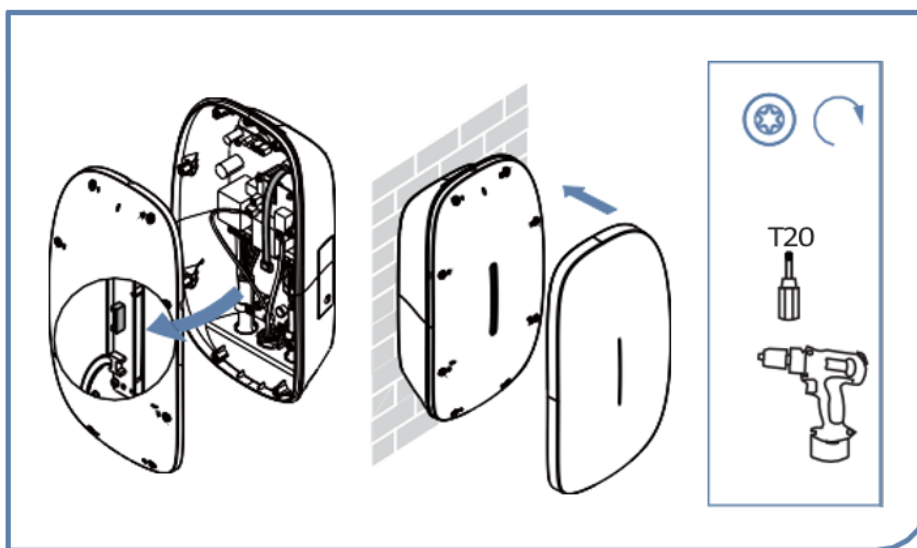
Connect the two jumper wires. Ensure they are firmly inserted and secured before proceeding to close the cover.

Tighten the eight screws in the middle cover.

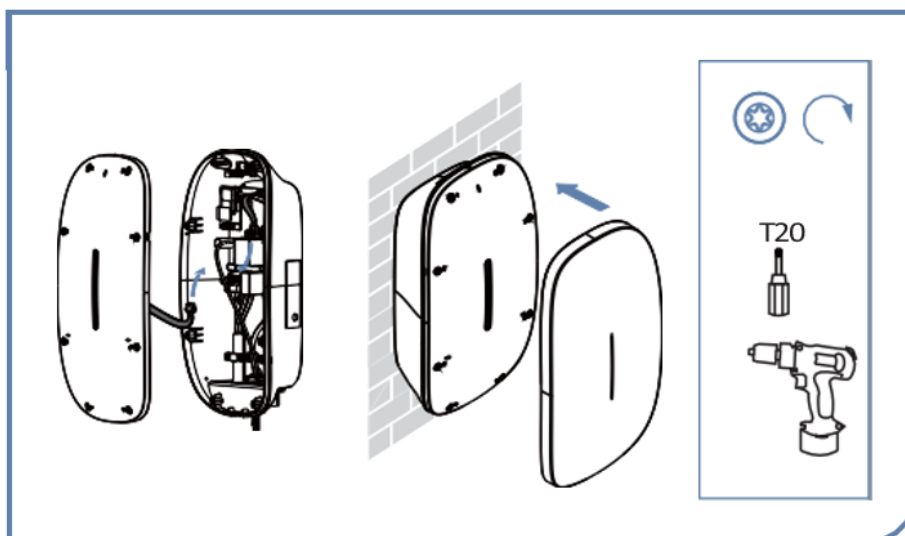
Install the decorative cover back.

M4: 0.6~1.2 N.m

THREE-PHASE:



SINGLE-PHASE:

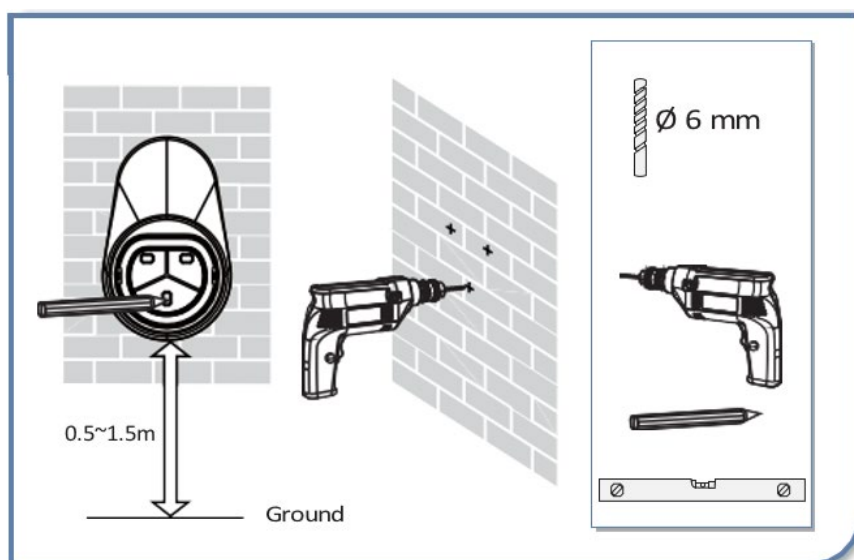


5.4.8. Install Cable Holder

Choose a location 0.5–1.5 meters above ground and close to the charger for convenience.

Hold the cable holder against the wall.

Use a pencil to mark the three fixing holes.



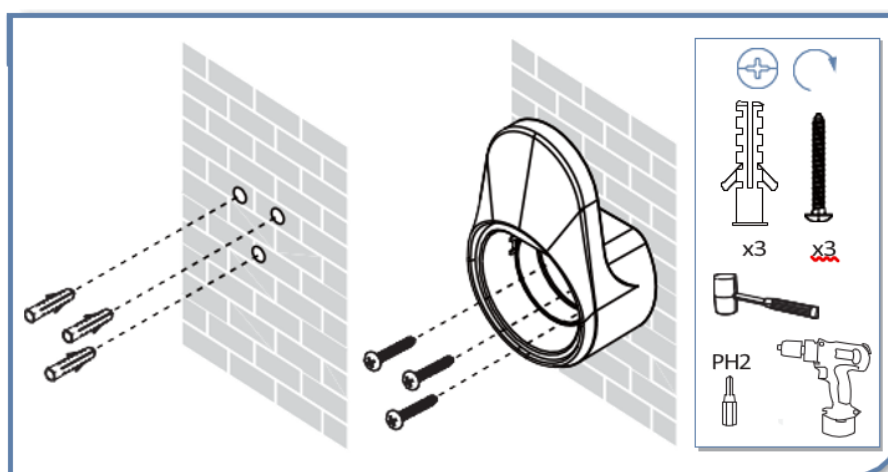
Use a 6mm diameter drill bit to drill three holes, each 35mm deep, at the marked locations.

Insert three wall plugs into the drilled holes.

Align holes in the cable holder with the ones on the wall.

Secure it using three M4*32mm screws to complete the holder installation.

M4: 0.6~1.2 N.m



6. Commissioning

The commissioning process differs depending on the scenario in which the charger is used:

- Residential scenario: Evcharge App
 - If in residential scenario, you want to connect the charger to a third-party platform platform, and use a third-party App to charge EV, then AP mode will be used.
- Commercial scenario: AP mode
 - You need to configure the charger in Evcharge platform.

6.1. Commissioning via APP

Install the Evcharge App on a smartphone.

Create an account and log in.

Follow the instructions on the App to complete wizard settings and parameter settings.



Evcharge Download

(IOS&Android)

6.2. Commissioning via AP Mode

When a third-party App is used, AP mode will be used to configure the charger network before the charger can be controlled by the third-party App.

7. Operation and Configuration

7.1. Charging Operation - Plug & Charge

Standby

A green indicator flashing slowly for 1s at 3-sec intervals indicates the charger is ready to use.



Plug in

Plug the charging connector into your EV's charging socket.

A green indicator flashing for 200ms at 1-sec intervals indicates the charging connector is plugged in.



Charging

A green indicator breathing at 1-sec intervals indicates the charging is in progress.



Fully charged

Solid green light indicates the EV is fully charged.



Unplug

Unplug the charging connector.

Return to standby mode after the charging has finished



7.2. Configuration

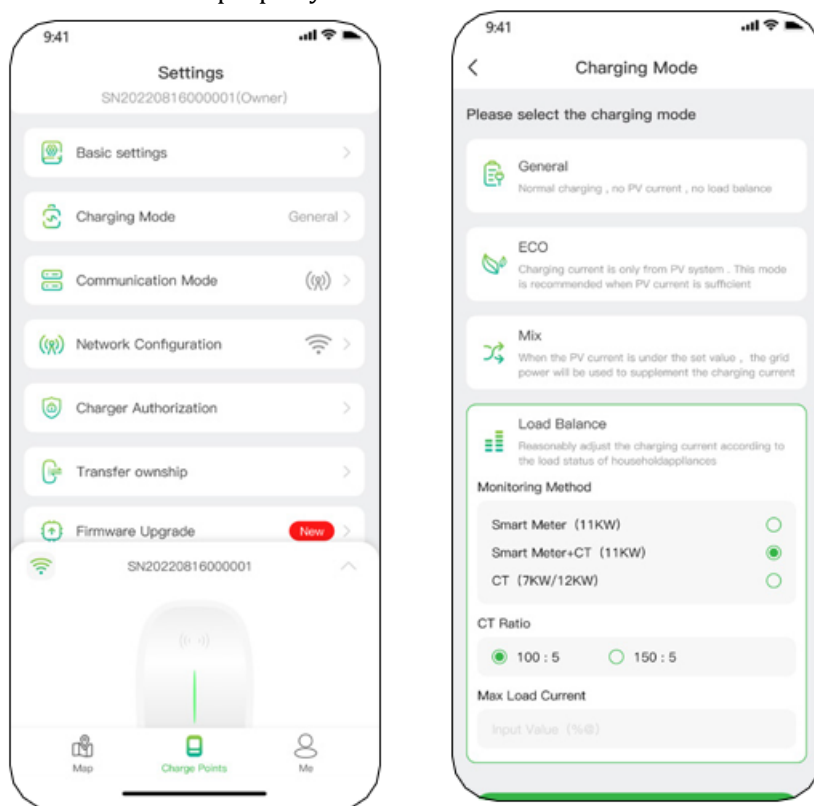
After completing the wiring of the dynamic load balancing, you need to configure in the software interface such as in App or in AP mode.

7.2.1. By APP

Swipe down on the charging page.

Tap "Charging Mode", and select "Load balance" to make the configuration.

- ✓ CT ratio: 150:5.
- ✓ Max load current: Labelled on the property's consumer unit.



7.2.2. By AP Mode

The Hotspot interface is intended for the local configuration of the charger. A smartphone is needed to connect the charger hotspot.

You can initiate the Hotspot interface by following the instructions.

7.2.2.1. Preparation

Activate the Hotspot:

Activate the hotspot of the charger by restarting the power.

The hotspot of the charger remains available for 15mins since charger reboot.



Connect to Charger Hotspot:

Turn on the smartphone Wi-Fi, and connect the hotspot of the charger. If unable to connect, try using Airplane mode.

The name of the hotspot Wi-Fi starts with the charger SN number, i.e. "SN..." .

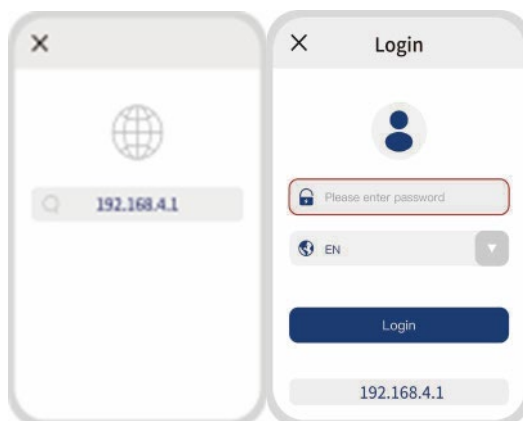
The password is "admin123" or the Wi-Fi password indicated on the label inside the instruction manual.



7.2.2.2. Login

Open the browser on your smartphone and enter <https://apmode.net> in the address bar.

Log in using the four-digit PIN code located on the last page of the manual. After login, the function menu will be displayed.



7.2.2.3. Configuration:

Newwork Configuration

Click "Network setting", you'll see the following:

1. Communication types

The default type will be Wi-Fi. Other options include Ethernet.

2. Wi-Fi name

Select the Wi-Fi or enter the Wi-Fi name and enter the password.

3. Server address

The default address will be shown here. You can also enter a new address.

4. Grid type

The default Grid type will be shown here. If the default is wrong, click the dropdown button and select the right type from IT / TT / TN.

Notice: When the configuration is successfully done, you need to reconnect the smartphone to the charger hotspot. Then go back to the web page. It will automatically jump to the login page.

Login again to start charging setting.

Charging Setting
Click “Charger setting” to configure the charger.
1. Load balance
The function of Load Balance is ONLY available when power meter or CT is installed. If both power meter and CT are installed, both ratio of transformation and maximum current can be set properly according to the CT specification. If only one installed, either power meter or CT, ONLY maximum current can be set.
2. Charging mode switch
Click “mode switch” and choose the “Network mode” or “Plug&Charge mode”. Then click “Confirm” to complete mode switching.
2. Charging current setting
The maximum charging current can be set (within the specified range).



7.3. Charging APP

7.3.1. App Introduction

Evcharge App, your companion app for managing your charger.

Designed with user-friendly interface, Evcharge offers seamless integration with your charging needs.

	• If you are an installer, you can download and install Evcharge App, and after completing all necessary configurations, you can transfer the ownership to the user. • The user then simply installs the App and log in to easily control the charging process with the App.
Attention	

7.3.2. Download & Installation

For the use of the monitoring portal, please refer to the dedicated documentation on the website <http://www.zcsazzurro.com/>.

In the section on charging stations see the document "User Manual Evcharge Portal"

In addition, for the creation of the account on the new portal: <https://cloud.evcharge.com/> please email us the following data so that we can activate them and properly configure the new account:

- company name or how to call the account
- email with which to register

Send us this data by opening a ticket from our website <http://www.zcsazzurro.com> in the section Support/Request assistance and commercial info.

Once you have created your account, you will receive a notification email from notification@evcharge.com with your account password.



Evcharge Download
(IOS&Android)

7.3.3. Sign Up and Log In

✓ **Account creation:**

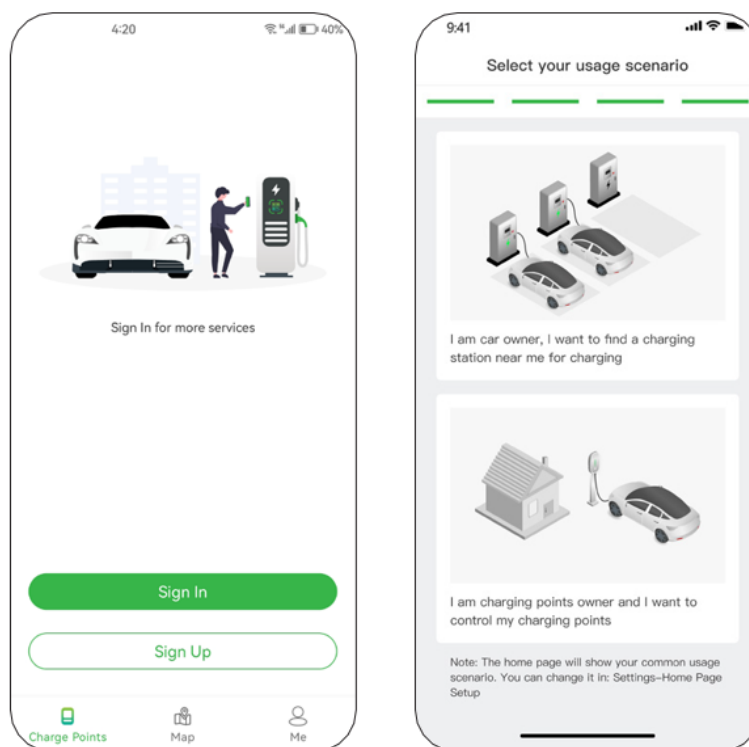
Open the app and tap "Sign Up" to create a new account. Enter your Email address, set a password and confirm your details.

✓ **Login:**

To login, enter your email and password.

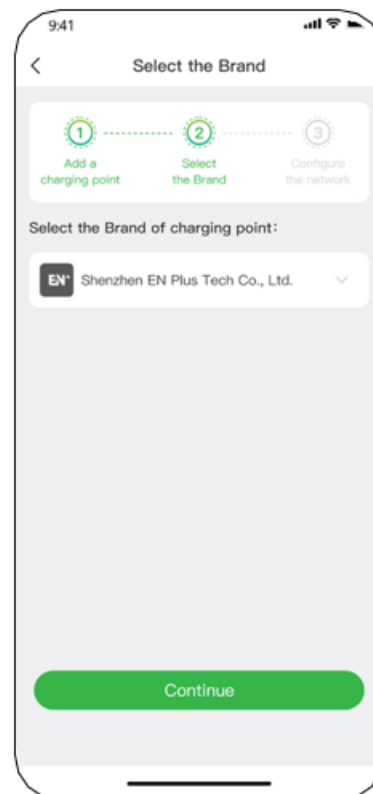
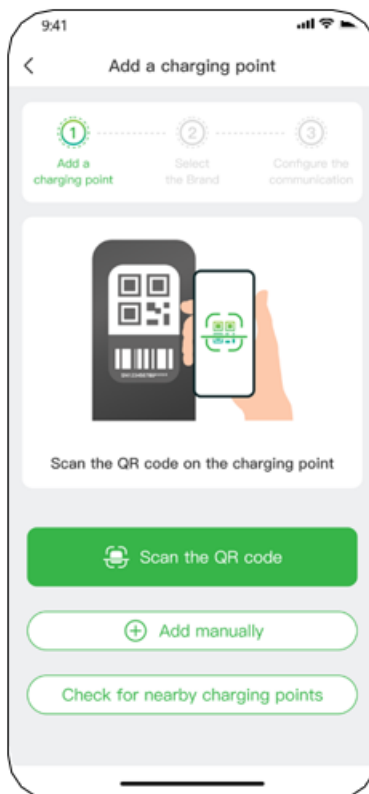
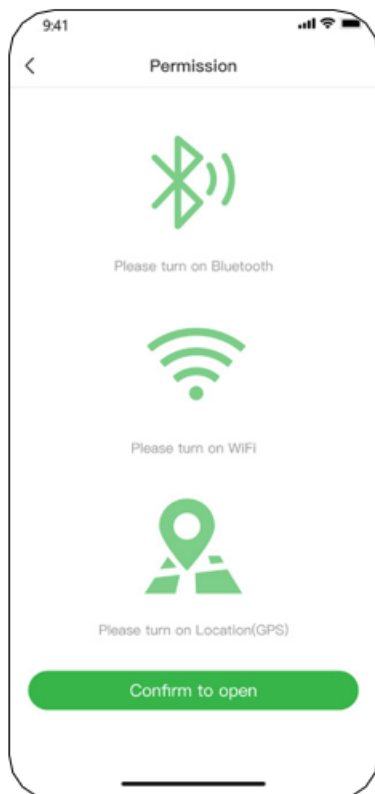
✓ **Select Scenario:**

Select the second one.



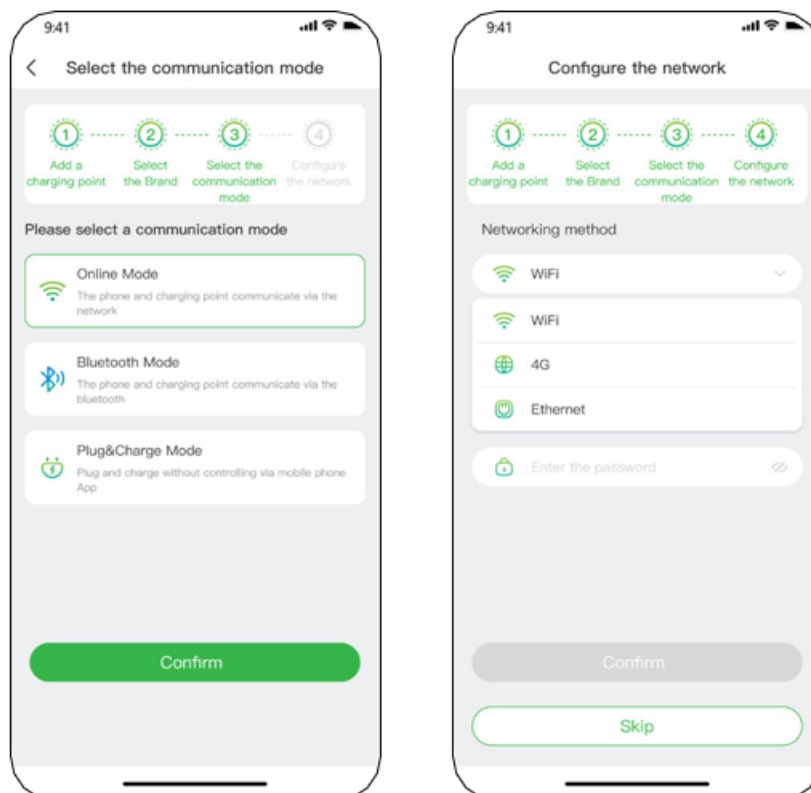
7.3.4. Bind Charger to App

- ✓ Turn on Bluetooth, Wi-Fi and GPS in your mobile phone.
- ✓ Add the charger through the provided methods.
- ✓ Select the brand of your charger.



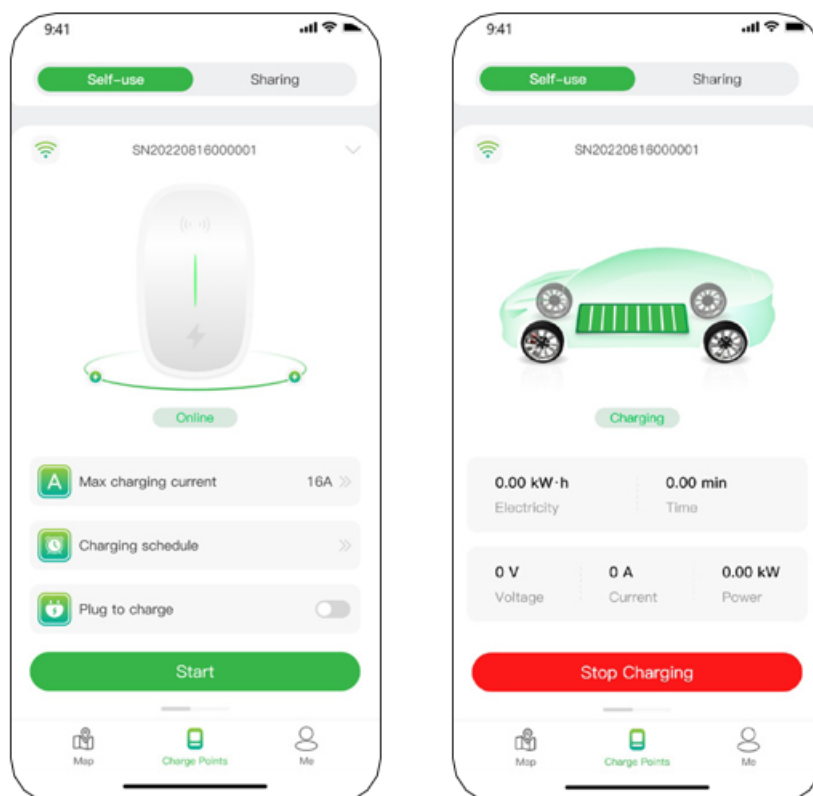
7.3.5. Select Communication Mode

- ✓ The communication modes determines the charging modes you use to charge EV.
- ✓ If Bluetooth mode and plug to charge mode are selected, it will jump to the charging control page directly.
- ✓ If online mode is selected, you need to configure network (Wi-Fi or Ethernet) for the charger.



7.3.6. Set Maximum Charging Current

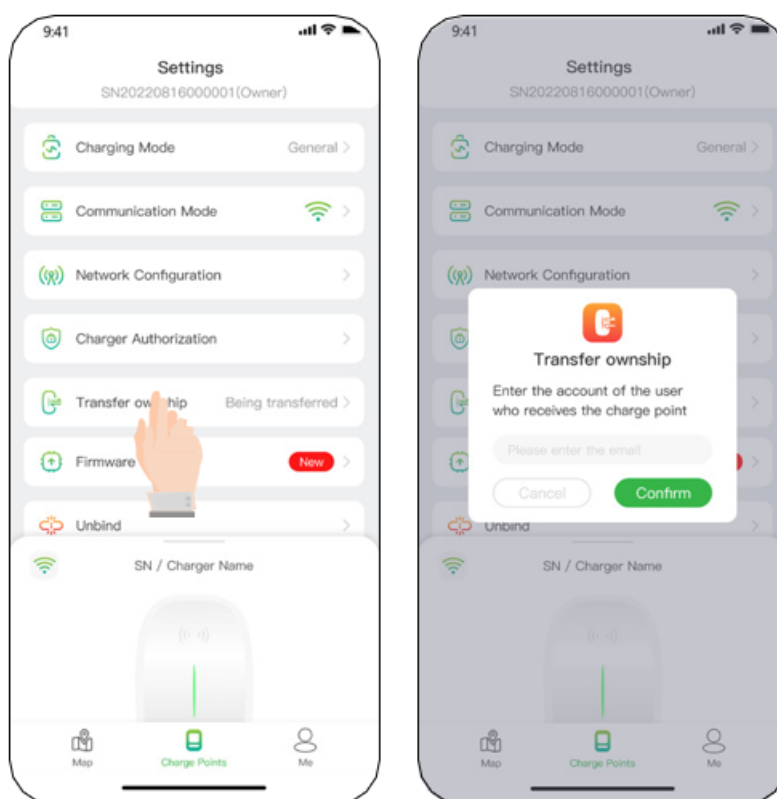
The main fuse or circuit breaker in the property's consumer unit should be labelled to state the maximum load. It is imperative that the maximum charging current is configured in such a way that the property's power supply remains uninterrupted, even at peak usage, while ensuring that all other household appliances continue to function without disruption.



7.3.7. Transfer Ownership to End User

If you are an installer, after completing the above step and no other functions such as load balancing, PV charging are required, you can use the "Transfer Ownership" feature within the APP to transfer account control to the user. This way, the user can easily control charging without any additional configuration through the APP.

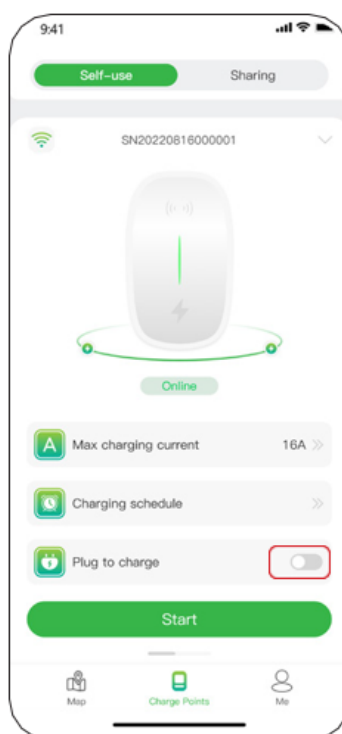
1. wipe down on the charging page.
2. Tap "Transfer ownership".
3. Enter the email address of the receiver.



7.3.8. Charging Operation

Plug to charge

1. Turn on the "plug to charge" toggle.
2. Plug the charging connector in, and the indicator
3. flashes green quickly for five times.
4. The indicator gradually brightens, then gradually dims in green while charging in progress.
5. The charging session will be stopped by EV side upon it is fully charged.



Control charging via App

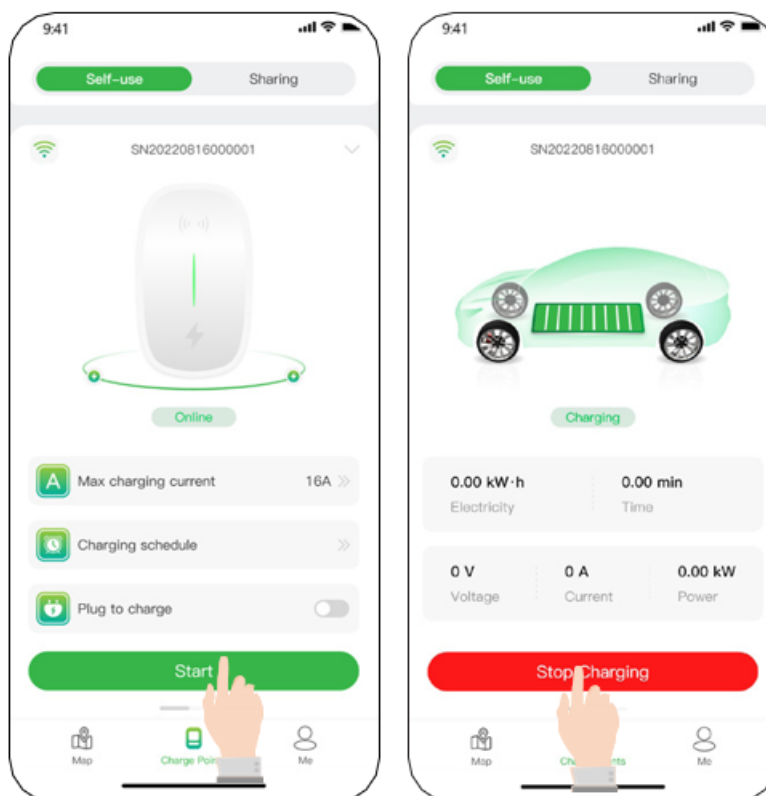
Controlling charging process via App is convenient, with two options available: Ethernet, or Wi-Fi, or via Bluetooth.



Attention

- For the Bluetooth, it's important to maintain your phone within the Bluetooth communication range of charger to ensure a reliable and stable connection.

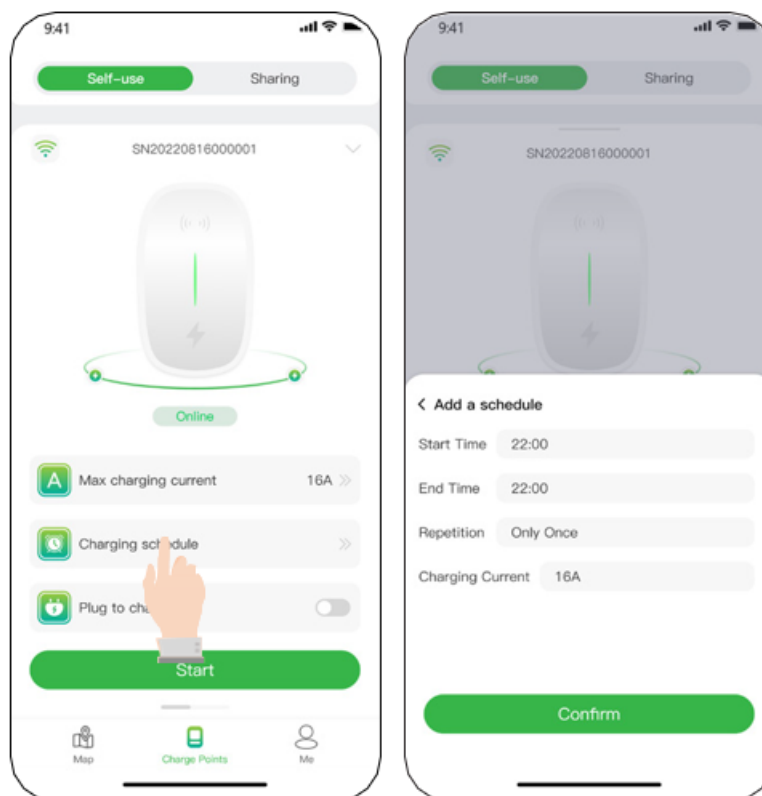
- ✓ Plug the charging connector in, and The indicator flashes green quickly for five times.
- ✓ Tap "Start" button in the screen, and the indicator gradually brightens, then gradually dims in green while charging in progress.
- ✓ The charging will be stopped automatically as EV is fully charged, or you can tap "Stop" button to stop charging.



Scheduled charging

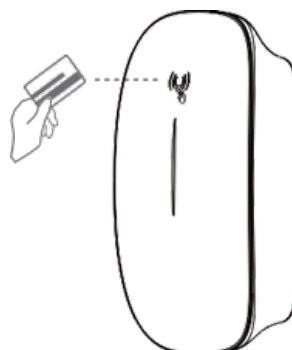
Scheduled charging for EVs lets you set specific times to charge your electric vehicle, helping you save on electricity costs and reduce strain on the grid.

- ✓ Plug the charging connector in, and the indicator flashes green quickly for five times.
- ✓ Tap "Charging schedule" to create a schedule.
- ✓ The charging will start automatically upon reaching the specified time.
- ✓ The charging will be stopped automatically as EV is fully charged, or you can tap "Stop" button to stop charging.



Charging by swiping card

- ✓ Plug the charging connector in, and the indicator flashes green quickly for five times.
- ✓ Swipe card, and the indicator flashes yellow quickly for up to five times.
- ✓ During charging, the indicator gradually brightens, then gradually dims in green.
- ✓ Swipe card and unplug to the connector.



8. Dynamic Load Balancing

	The EV charger supports load balance; however, the required accessories are sold separately. The PV wiring shown is for reference only. If no PV system is available, this part may be ignored.
NOTE	

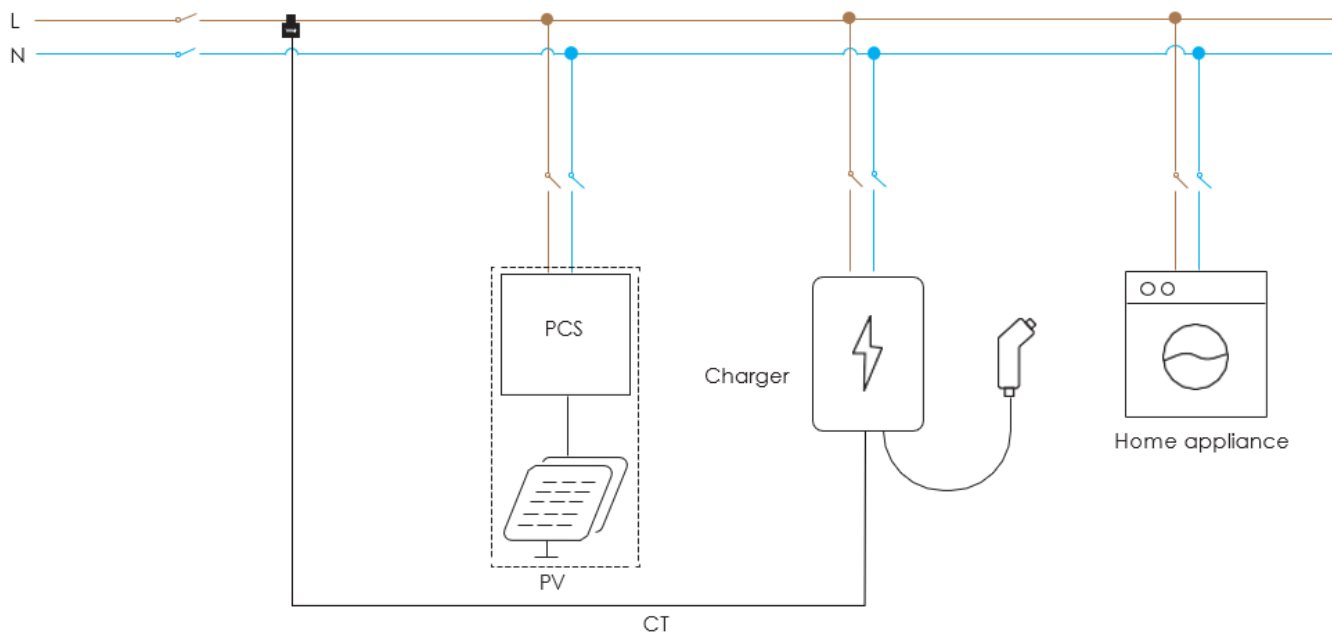
	The arrow shown on the CT clamp must point in the direction of electrical flow TOWARD the consumer unit.
WARNING	

Our load balancing solution is designed based on the fuse current capacity of your home and the power of your charger.

Solution No.	Required items	Power supply	Fuse current	Software configuration
B49010016	CT x 1	Single phase	Fuse current $\leq 50A$	Evcharge App or Access point (AP)
B49010102	CT x 1 Meter x 1	Single phase	Fuse current $\leq 50A$	
B49010017	Meter x 1	Three phase	Fuse current $\leq 80A$	
B49010018	Meter x 1 CT x 3	Three phase	Fuse current $\leq 150A$	

8.1. Load Balancing via the CT Only (Single-Phase)

Wiring

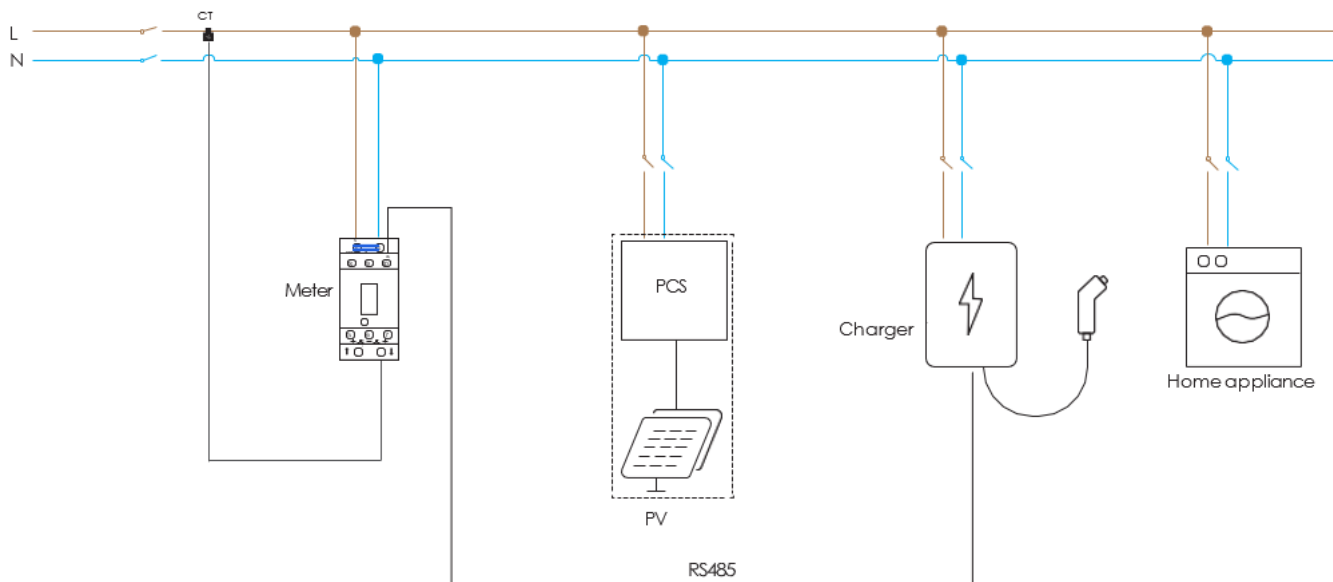


Wiring sequence

Line	Line Color	Port of the EV charger
L	Brown	L
N	Blue	N
PE	Green + Yellow	PE
CT	Red	CT-Red
	White	CT-White

8.2. Load Balancing via a CT and a Meter (Single-Phase)

Wiring



Wiring sequence

Line	Line Color	Port of the meter	Port of the EV charger
L	Brown	L	L
N	Blue	N	N
PE	Green + Yellow	GND	PE
RS485	Red	A+	A
	Black	B-	B
CT	Red	1	-
	White	2	-

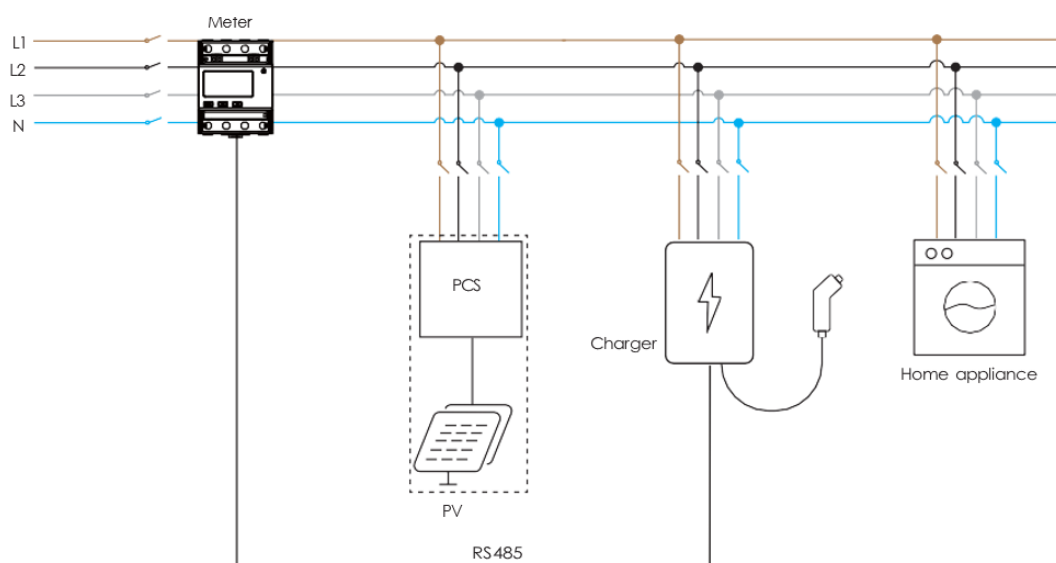
8.3. Load Balancing via the Meter Only (Three-Phase)



NOTE

The PV wiring shown is for reference only. If no PV system is available, this part may be ignored.

Wiring

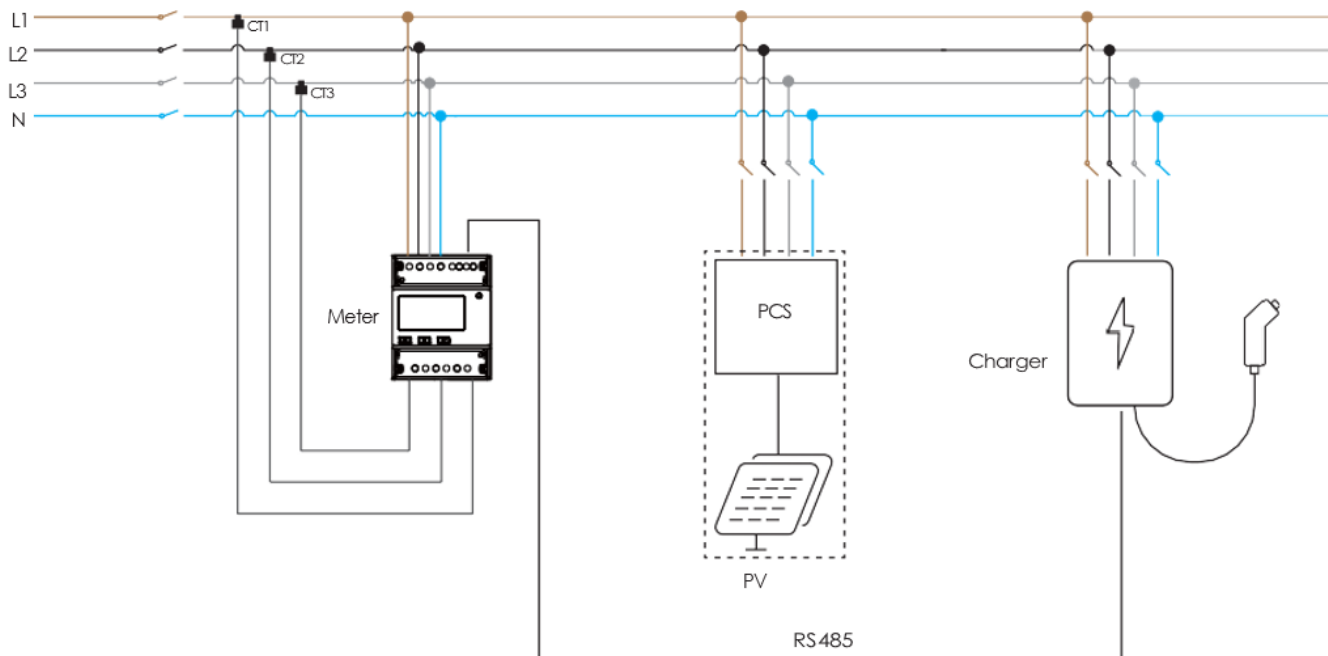


Wiring sequence

Line	Line Color	Port of the meter	Port of the EV charger
L1	Brown	L1	L1
L2	Black	L2	L2
L3	Gray	L3	L3
N	Blue	N	N
PE	Green + Yellow	-	PE
RS485	Red	21	A
	Black	22	B

8.4. Load Balancing via the Meter & Three CTs (Three-Phase)

Wiring



Wiring sequence

Line	Line Color	CT	Port of the meter	Port of the EV charger
L1	Brown	-	UA	L1
L2	Black	-	UB	L2
L3	Gray	-	UC	L3
N	Blue	-	UN	N
PE	Green + Yellow	-	-	PE
RS485	Red	-	21	A
	Black	-	22	B
CT1	Red	-	1A	-
	White	-	1A*	-
CT2	Red	-	1B	-

	White	-	1B*	-
CT3	Red	-	1C	-
	White	-	1C*	-

8.5. Configure Load Balance

After completing the wiring of the dynamic load balancing, you need to configure in the software interface such as in App or in AP mode.

8.5.1. By APP

Please refer to the section APP User Guide

- ✓ How to Manage Load Balance

8.5.2. By AP Mode

Please refer to the section in the AP mode Configuration Guide:

- ✓ Load balancing in a residential scenario

8.5.3. Applicable Scenarios and Required Accessories

Our solution is designed to provide you with a customized load balancing solution based on the total current capacity of your home and the power of your charger.

Solution No.	Required accessories	Phase of charger	Total Current	Photo
ZVM-CARO-TA	One CT	Single phase	Total current < 50A Charger connected to	

			the CT directly	
ZVM-CARO-METER-01	One meter	Three phases	Total current < 80A Charger connected to the meter via Modbus	
ZVM-CARO-METER-02	One meter Three current transformers	Three phases	Total current < 150A The meter gets the current via three CTs, and the charegr connected to meter via modbus	

8.5.4. Specifications

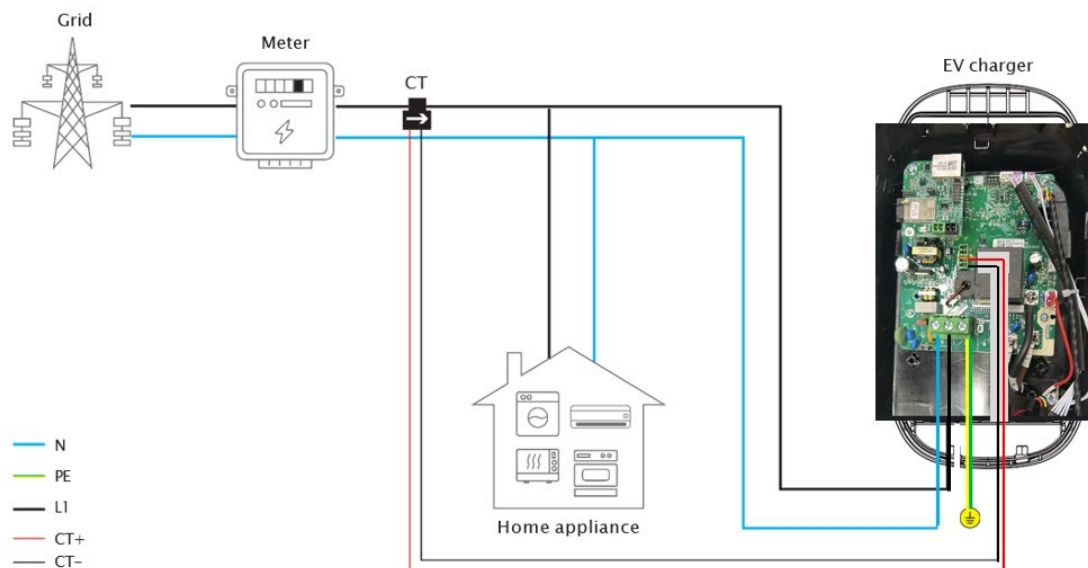
Model No.	ZVM-CARO-TA	ZVM-CARO-METER-01	ZVM-CARO-MATAER-02
Voltage range		3×57.7/100V - 3×260/450V	
Consumption		<10VA(Single phase)	<10VA(Single phase)
Impedance		> 2M Ω	> 2M Ω

Accuracy class		Error $\pm 0.2\%$	Error $\pm 0.2\%$
Input current		3x1(6)A	3x10(150)A
Frequency		45~65Hz, error $\pm 0.2\%$	
Energy		Active energy (accuracy class:0.5)	
CT clamps		No	Yes
Interface and communication protocol		RS485: Modbus RTU	
Range of communication address		Modbus RTU:1~245	
Baud rate		1200bps~38400 bps	
Working temperature		-25°C ~ +55°C	
Working humidity		5%~95%	
Working altitude		<2000m	
Warranty		2 years	

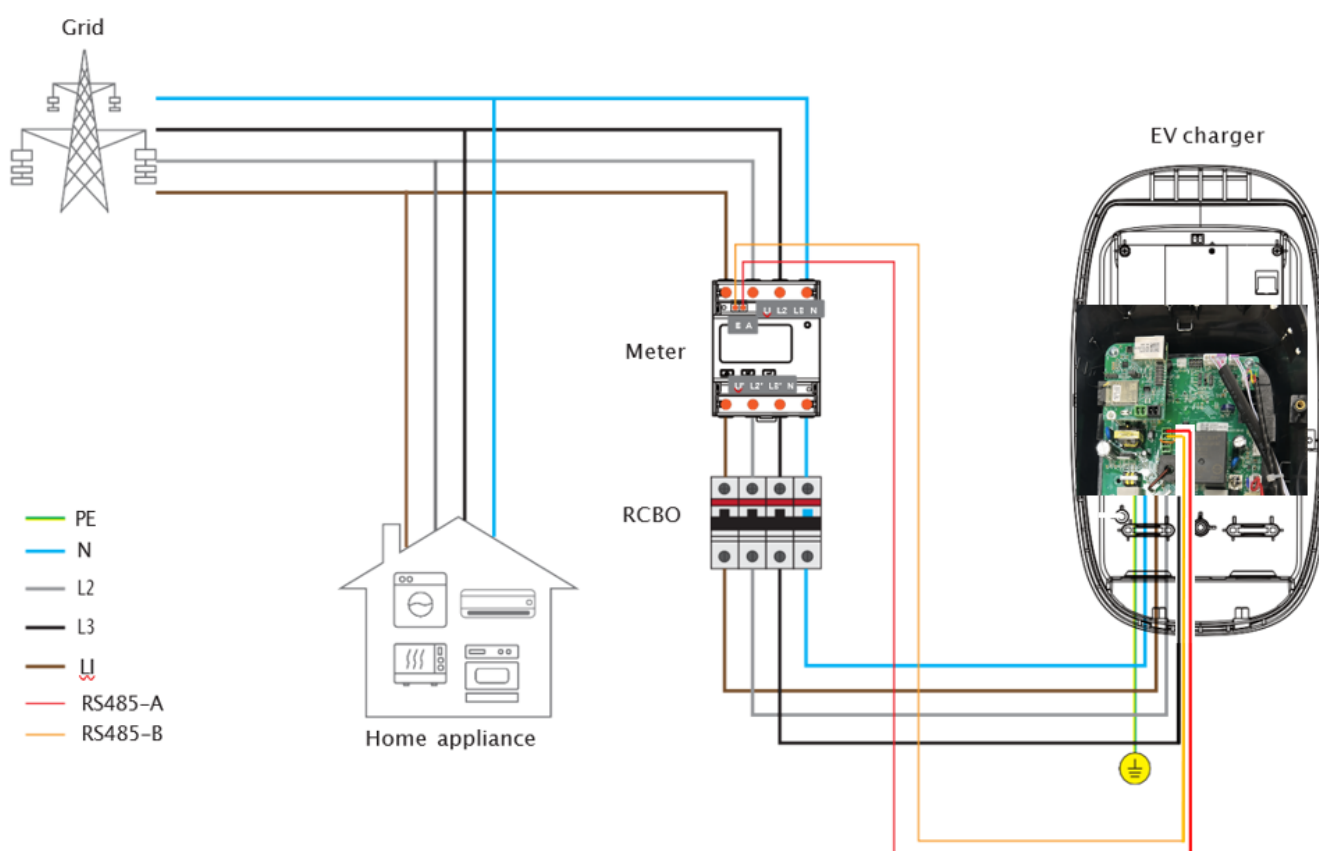


8.5.5. Hardware Wiring

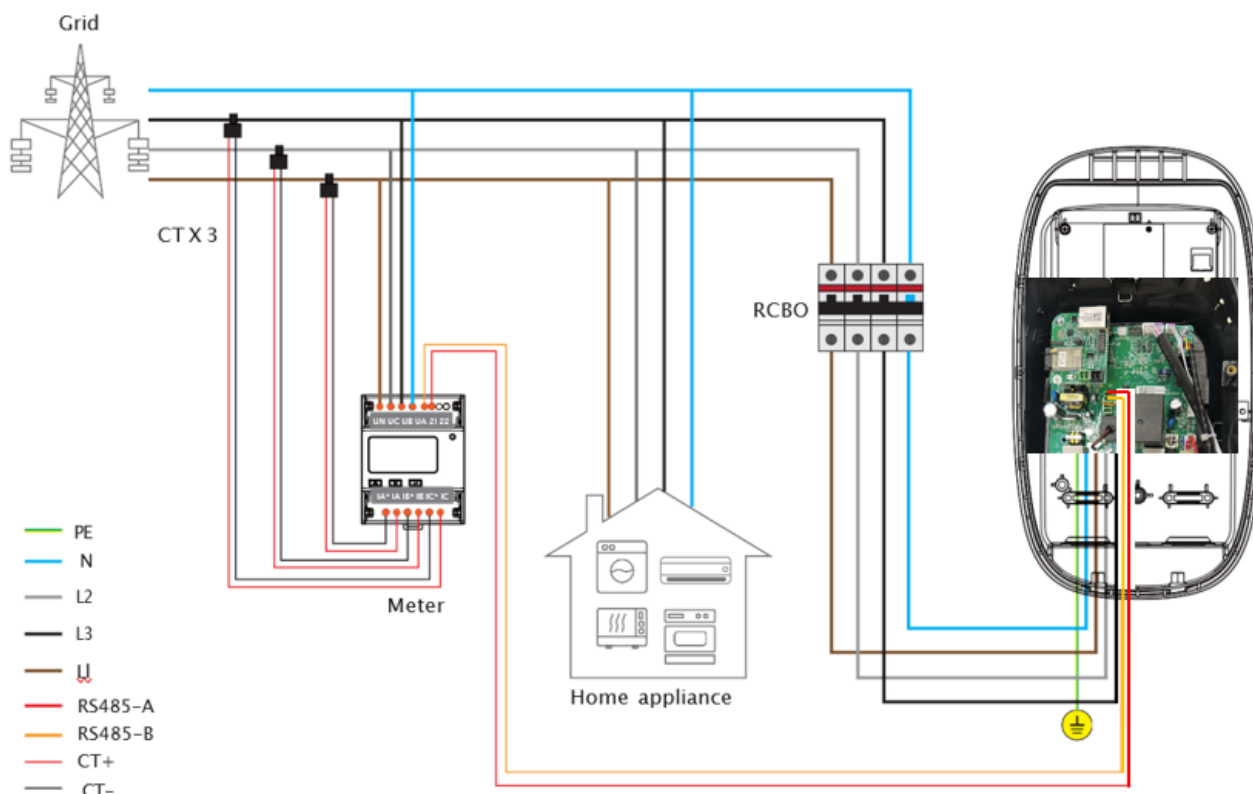
Caro Plus_Single phase



Caro Plus_Three phases_Meter



Caro_Three phases_Meter + CT



8.5.6. Meter Settings for Communication with the Wallbox

Configure the Acrel Meter with the following communication parameters:

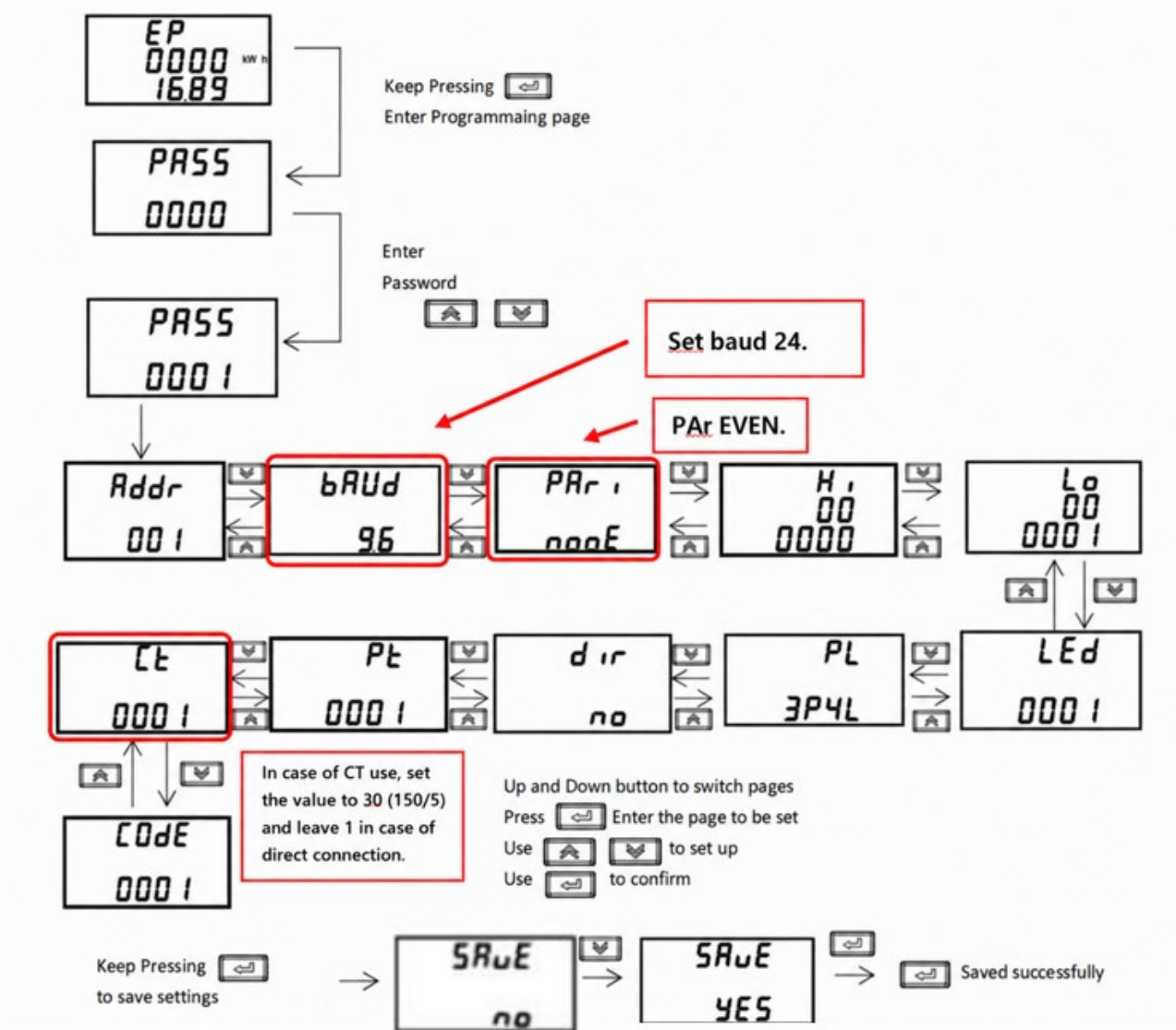
- **Baud rate:** 2400 bps
- **Parity:** Even

To modify the parameters:

1. Press and hold the ← button from any main menu to access the **PASS** screen.
2. Press the ← button until **0000** is displayed, then enter the access code.
3. If an incorrect code is entered, **FAIL** will be displayed and the Meter will automatically return to the main menu.
4. If the correct code is entered, the communication parameters can be modified.
5. Once the configuration is complete, press and hold the ← button again. The **SAVE** screen will be displayed.



6. Select **YES** and press the ← button to save the changes.
7. To exit without saving, select **NO** and press the ← button.



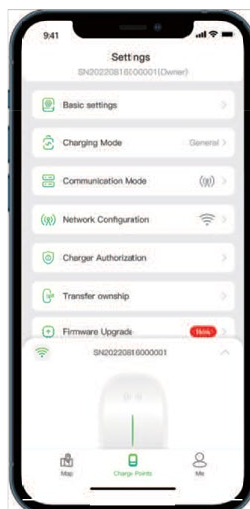
8.6. Software configuration

8.6.1. Configured via APP

After completing the hardware wiring, you also need to configure it within the APP.

Accessing Settings:

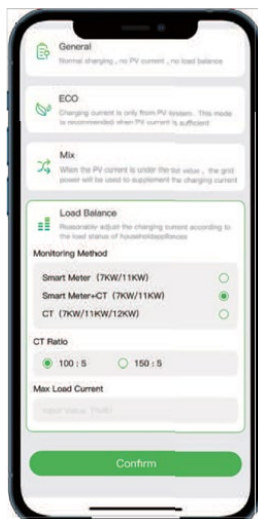
Scroll down in the charging page of Evcharge app, find "Charging mode", as shown:



Choose the monitoring method based on the accessories you choose to achieving load balancing.

If you opt for the "Smart Meter + CT" configuration, ensure that the CT ratio is set to 150:5 for proper functionality.

Regarding "Max Load Current," this refers to the maximum current threshold that your home's electrical system can handle without tripping. It's the limit beyond which the circuit breaker will activate to prevent overloads.



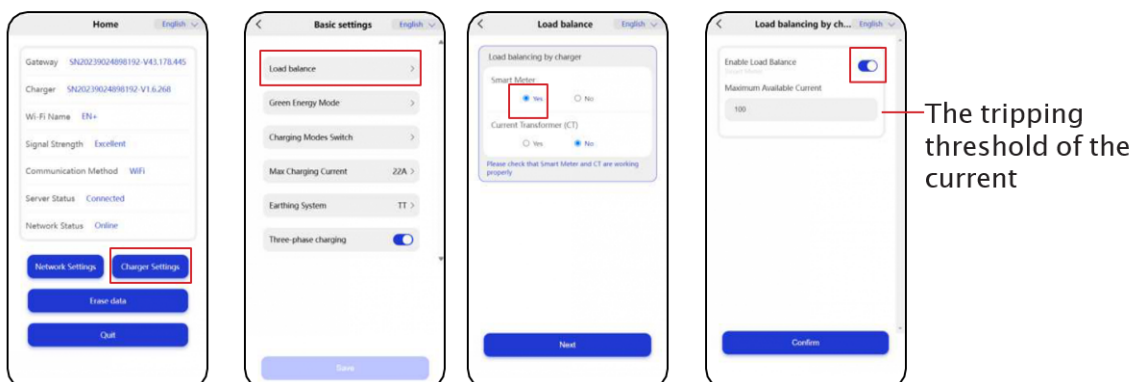
For the use of the monitoring portal, please refer to the dedicated documentation on the website <http://www.zcsazzurro.com/>.

In the section on charging stations see the document "User Manual Evcharge Portal"

8.6.2. Configured via AP mode

AP Mode, also known as Access Point Mode, is a versatile wireless networking feature that enables devices like EV charger to function as Wi-Fi access points, establishing a dedicated hotspot. Users can effortlessly connect their smartphones or other mobile devices to this hotspot and manage the device through a web interface by navigating to a designated IP address, such as 192.168.4.1.

This setup facilitates remote monitoring and configuration of the device, eliminating the need for physical interaction and ensuring a user-friendly and secure wireless management experience.



9. Charger Usage

9.1. Plug to Charge

Factory default: APP-control via Ethernet or Wi-Fi.

Enable plug-and-charge in the Evcharge app, please refer to the the section in App user guide:

- ✓ Switch from "Online Mode" to "Plug to Charge Mode"

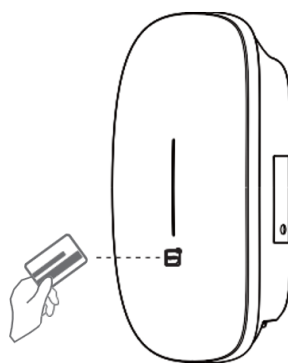
9.2. Control Charging via APP

Please refer to the the section in App user guide:

- ✓ How to Start a Charging Session at Home

9.3. Charging by Tapping Card

- ✓ Plug in the charging connector, and the indicator flashes green quickly for five times.
- ✓ Tap card, and the indicator flashes yellow quickly for up to five times.
- ✓ During charging, the indicator gradually brightens, then gradually dims in green.
- ✓ Tap card and unplug the connector.



10. Indicator

Indicator color	EV charger status	Indicator status
Green	Standby	Cycle: Slow flashing: on for 1s, then off for 3s.
	Charging initiated, awaiting vehicle response	Cycle: Rapid flashing: on for 200ms, then off for 1000ms, followed by a 3000ms off.
	Charging connector plugged in, ready for Charging	Cycle: Rapid flashing: on for 200ms, then off for 1000ms, followed by a 3000ms off.
	Charging in progress	Cycle: gradually brightens, then gradually dims, on for 1s, off for 1s.
	Charging completed	Steady green.
Yellow	No Network/Not Connected to Server	Cycle: The green light is on for 1s, followed by the yellow light on for 1s, then off for 3s.
	Bluetooth lock	Cycle: Flashing: on for 4s, then off for 1s.
	Scheduled charging in Bluetooth mode	Cycle: Rapid flashing: on for 2s, then off for 2s.
	Insufficient Power Allocated, Pausing Charging	Cycle: Rapid flashing: on for 200ms, then off for 1000ms, followed by a 3000ms off.
	Card Identified Successfully	Cycle: Rapid flashing: The indicator light is on for 100ms, then off for 100ms, with a maximum of 5 repetitions.
	Charger Reserved (Occupied)	Rapid flashing: on for 2s, then off for 2s



	Alarm	Steady yellow.
White	Program is upgrading	Cycle: Rapid flashing: on for 200ms, then off for 1000ms, this pattern repeats five times, followed by a 3000ms off.
	Power-On Self-Test	Cycle: Breathing light: Gradually brightens, then gradually dims, on for 1s, off for 1s.
Red	Faulty	Steady red, flashes red, alternating red & yellow



11. Troubleshooting and maintenance

This section contains information and procedures on how to troubleshoot any faults and errors that may occur during operation of the charging station.

If you have any problems please follow these steps:

- 1) Check the warning messages and error codes on the information panel of the device. Record them before carrying out any further operation.
- 2) If the charging station does not display any errors, perform the following checks:
 - Is the device located in a clean, dry and properly ventilated place?
 - Are the cables correctly sized and as short as possible?
 - Are the connections in good condition?
 - Are the configuration settings correct for the type of installation?

11.1. Troubleshooting Common Faults

Information on the event list:

Indicator color	EV charger status	Indicator status	Solution
Red	Relay adhesion	Steady red	Please contact after-sales
	Leakage current fault	Cycle: on for 500ms, then off for 500ms once, followed by 3s off.	
	CP fault	Cycle: on for 500ms, then off for 500ms, twice; followed by 3s off.	
	Overcurrent fault	Cycle: on for 500ms, then off for 500ms, 3 times; followed by 3s off.	
	Reverse polarity fault	Cycle: on for 500ms, then off for 500ms, 4 times; followed by 3s off.	
	Leakage current loop anomaly (self-check)	Cycle: on for 500ms, then off for 500ms, 5 times; followed by 3s off.	

	Input terminal overheat fault	Cycle: on for 500ms, then off for 500ms, 6 times; followed by 3s off.	
	Relay Overheat	Cycle: on for 500ms, then off for 500ms, 7 times; followed by 3s off.	
	Output voltage fault	Cycle: on for 500ms, then off for 500ms, 9 times; followed by 3s off.	
Red + Yellow	Undervoltage fault	Cycle: yellow on for 2s, followed by the red flashing once (on for 500ms, off for 500ms), then 3s off.	Please try again 10 minutes later
	Overvoltage fault		
	Overfrequency fault		
	Underfrequency fault		
	Smart meter communication failure	Yellow on for 2s, followed by the red flashing 4 times (on for 500ms, off for 500ms), then 3s off.	Please contact after-sales
	Current transformer (CT) anomaly	Yellow on for 2s, followed by the red flashing 4 times (on for 500ms, off for 500ms), then 3s off.	
	Charging connector lock anomaly	Yellow on for 2s, followed by the red flashing 6 times (on for	

		500ms, off for 500ms), then 3s off.	Please contact after-sales
	Charging connector current anomaly	Yellow on for 2s, followed by the red flashing 7 times (on for 500ms, off for 500ms), then 3s off.	
White	BOOT security verification failed or security chip is malfunctioning	Cycle: Flashing white twice (on for 200ms, then off for 1000ms), followed by 5000ms off.	
	The charger in a disabled state	Steady white	

Note: If the above problems cannot be resolved, contact Zucchetti Centro Sistemi Spa

11.2. Troubleshooting Technical Faults

Information on the event list:

Indicator color	EV charger status	Indicator status	Solution
Red	Relay adhesion	Steady red	
	Leakage current fault	Cycle: on for 500ms, then off for 500ms once, followed by 3s off.	
	CP fault	Cycle: on for 500ms, then off for 500ms, twice; followed by 3s off.	
	Overcurrent fault	Cycle: on for 500ms, then off for 500ms, 3 times; followed by 3s off.	
	Reverse polarity fault	Cycle: on for 500ms, then off for 500ms, 4 times; followed by 3s off.	

	Leakage current loop anomaly (self-check)	Cycle: on for 500ms, then off for 500ms, 5 times; followed by 3s off.	Please contact after- sales
	Input terminal overheat fault	Cycle: on for 500ms, then off for 500ms, 6 times; followed by 3s off.	
	Relay Overheat	Cycle: on for 500ms, then off for 500ms, 7 times; followed by 3s off.	
Red + Yellow	Undervoltage fault	Cycle: on for 500ms, then off for 500ms, 9 times; followed by 3s off.	Please try again 10 minutes later
	Overvoltage fault		
	Overfrequency fault		
	Underfrequency fault	Cycle: yellow on for 2s, followed by the red flashing once (on for 500ms, off for 500ms), then 3s off.	Please contact after- sales
	Smart meter communication failure	Yellow on for 2s, followed by the red flashing 4 times (on for 500ms, off for 500ms), then 3s off.	
	Current transformer (CT) anomaly	Yellow on for 2s, followed by the red flashing 5 times (on for 500ms, off for 500ms), then 3s off.	
Red + Yellow	Charging connector lock anomaly	Yellow on for 2s, followed by the red flashing 6 times (on for 500ms, off for 500ms), then 3s off.	
	Charging connector current anomaly	Yellow on for 2s, followed by the red flashing 7 times (on for 500ms, off for 500ms), then 3s off.	
Whitie	BOOT security verification failed or security chip is malfunctioning	Flashing white : on for 200ms, then off for 1000ms twice, followed by 5000ms off.	Please contact after- sales
	The charger in a Disabled state	Steady white	

11.3. Maintenance

Chargers do not need special maintenance. You are advised to check and clean the enclosure of the charger and accessories such as the charging connector every six months.

Check whether the charger and cables are damaged.

Use a dry cloth to clean the surface of the charger. Do not spray water directly on the charger.

	• Do not use corrosive cleaners, glass cleaners, or organic solvents.
Attention	

No.	Item	Operating process
1	Keep the charger clean.	Use a cloth to clean the charger surface. If there is any damage or dirt on the vehicle connector, charging cable, or vehicle connector holder, please contact customer service immediately.
2	Keep the charger intact.	Do not hit or press hard on the case. If the case is damaged, please contact customer service.
3	Avoid letting moisture or water enter the charger.	If there is water or moisture inside the charger, you must immediately switch off the electricity supply to avoid immediate danger. Please notify your maintenance professional before continuing to use the charger.
4	Avoid charger rusted.	Keep the charger away from dangerous substances such as flammable gases and corrosive materials.

11.4. Storage and Transportation

Chargers should be transported in the original packages. Do not place other objects on the top of the charger.

Before transportation, store the product in a clean, dry, and well-ventilated place with a relative humidity of not more than 80% and free from corrosive gases.

The environmental specifications for storage and transportation shall not go beyond those specified in the Technical Specifications.

11.5. Disassembly

Only authorized and qualified electricians are allowed to disassemble the product.

Power off the charger before disassembling it. Disassemble a charger in the reverse order of installation.

11.6. Disposal/Scrapping

The product should be disposed of at recycling points for electronic equipment. Dispose of the product in a correct and environmental friendly manner in compliance with local laws and regulations.

Electronic devices cannot be disposed of as household waste.



12. Warranty

Zucchetti Centro Sistemi SpA provides a warranty of 2 years from the date of installation of the charging station, subject to registration on the website <https://www.zcsazzurro.com/it/estensione-garanzia>. During the warranty period, Zucchetti Centro Sistemi S.p.A. guarantees the normal operation of the charging station.

If the device is defective or faulty during the warranty period, contact your installer or supplier. If the fault falls within the responsibility of the manufacturer, Zucchetti Centro Sistemi S.p.A. will provide service and maintenance free of charge.

Warranty exclusions:

- Normal wear and tear.
- Damage or failure caused by unauthorized upgrades conducted by a customer.
- Damage or failure caused by external factors such as fire, flood, abnormal voltage, other natural disasters, and secondary disasters.
- Damage or failure caused by improper handling of the charger, such as impact from a fall and careless transportation after purchase.
- Damage or failure caused by a customer not following the user manual.
- Damage or failure caused by non-equipment factors like human error by a non-authorized individual carrying out maintenance.
- Unauthorized repairs will render the limited warranty void.
- Damage or failure caused by external factors such as power grid malfunctions.

Limitation of liability:

We have compiled this document to the best of its knowledge but cannot guarantee that all information provided is error-free, nor will it accept liability in this respect.

To the maximum extent permissible under local applicable law, we hereby disclaim any and all indirect, incidental, special and consequential damages arising out of or relating to the AC Charger, including, but not limited to, loss of time, loss of income, loss of use, loss of personal or commercial property, inconvenience or aggravation, emotional distress or harm, commercial loss (including but not limited to lost profits or earnings), incidental charges such as telephone calls, facsimile transmissions, and mailing expenses. To the maximum extent permissible under local applicable law, we will not be liable for any direct damages in an amount that exceeds the market value of the AC Charger at the time of the claim.

The above limitations and exclusion will apply whether or not the customer's claim is in contract, tort (including negligence and gross negligence), breach of warranty or condition,

misrepresentation (whether negligent for otherwise) or otherwise at law or in equity, even if we has been advised of the possibility of such damages or such damages are reasonably foreseeable.

Nothing in this manual shall exclude, or in any way limit, our liability for death or personal injury solely and directly caused by their negligence, or that of its employees, agents, or sub-contractors (as applicable), fraud, or fraudulent misrepresentation, or any other liability to the extent the same is proven in a court of competent jurisdiction in a final non-appeal- able judgment and may not be excluded or limited as a matter of local law.



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