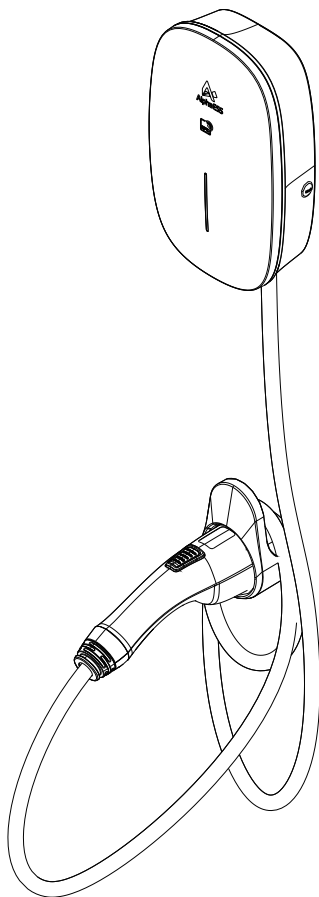


Installation & Operation Guide

AC7000-AE-65C4



7kW AC Charger

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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.
-



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

GLOSSARY OF SYMBOLS & TERMS

**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 damage to property can occur if the corresponding safety measures are not taken. Means that if the corresponding safety measures are not taken, a potentially hazardous situation can occur that may result in slight bodily injury.

**NOTE!**

A note gives more data or gives some tips, to make it easier to do the steps.

Term	Description
Ocpp	Open Charge Point Protocol
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
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
EVSE	Electric Vehicle Supply Equipment
RFID	Radio Frequency Identification
EV	Electric Vehicle
AP mode	Access Point Mode
AC	Alternating Current
PIN	Personal Identification Number

1. SAFETY

1.1 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.

1.2 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.

1.3 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.

1.4 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.

1.5 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.

1.6 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.

2. PRODUCT OVERVIEW

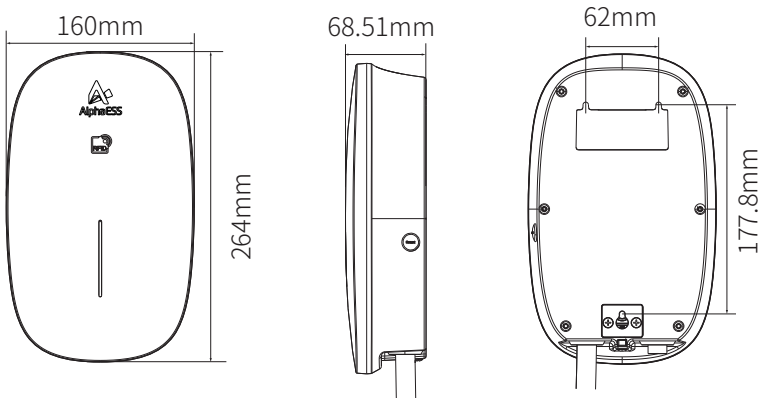
The 7kW AC Charger is a wall-mounted electric vehicle supply equipment (EVSE) designed for reliable, everyday charging at home or in semi-public locations. It provides a full single-phase 32A charge compatible with modern electric vehicles, supporting a convenient and connected user experience through multiple start modes and smart features.

Key Features:

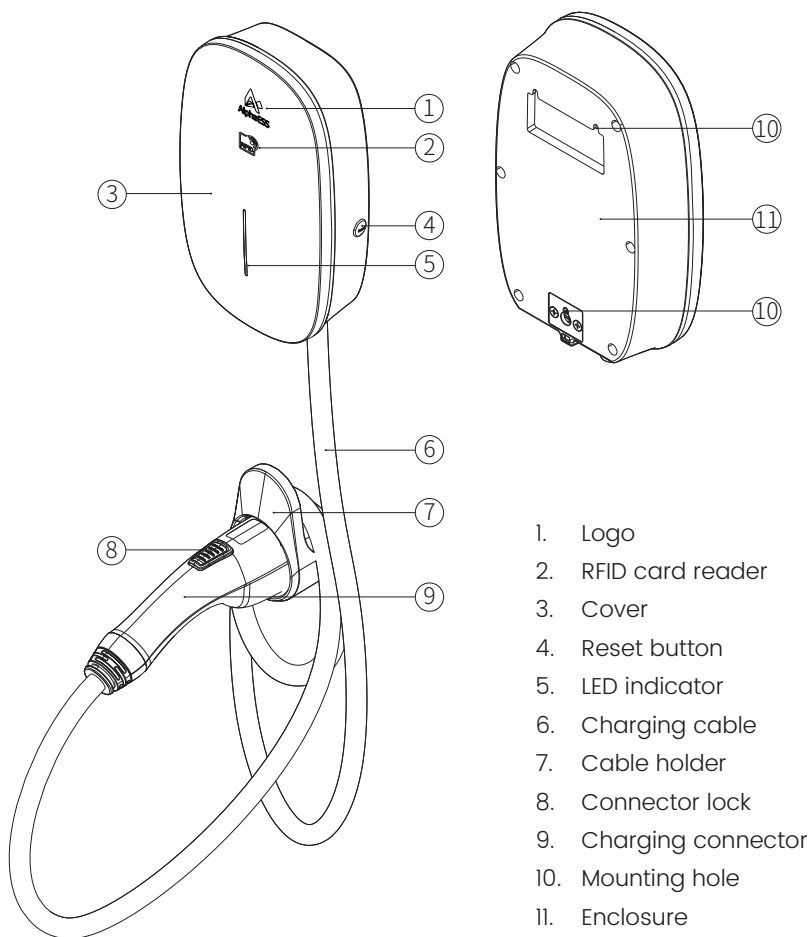
- **Power & Compatibility:** Delivers 7kW of AC power (230V, 32A) via a fixed 5-meter cable with a Type 2 (IEC 62196-2) connector, ensuring broad compatibility with electric vehicles using Mode 3 charging (IEC 61851-1).
- **Robust Design:** Features an IP65-rated enclosure for dust and water resistance, IK08 impact protection, and a UL94 V-0 fire-retardant housing, making it suitable for both indoor and outdoor installations.
- **Smart Connectivity:** Equipped with Wi-Fi and Bluetooth for network integration, remote management via a companion app, and firmware update capabilities.
- **User-Friendly Operation:** Offers multiple, flexible start methods: Plug & Charge, RFID card authorization, or app control. Status is clearly communicated through a multi-color LED indicator.
- **Comprehensive Safety:** Incorporates multiple electrical protections (overcurrent, residual current, surge, overtemperature) and is certified to relevant EU standards (CE, RoHS, REACH).

This charger is engineered for easy installation by a qualified electrician and is built to deliver safe, efficient, and dependable service over its operational life.

2.1 PRODUCT DIMENSIONS



2.2 EXTERNAL OVERVIEW



3. SPECIFICATION

Product model	AC7000-AE-65C4
Power supply	1P+N+PE
Rated voltage	230V AC
Rated current	32A
Frequency	50 / 60Hz
Rated power	7kW
Charge mode	Mode 3 (IEC 61851-1)
Number of connectors	1
Connector options	Fixed cable with Type 2 (IEC 62196 -2) plug
Cable length	5 m
Product dimensions	160*264*68.51 mm (W*H*D)
Color	White / Black
Earth leakage protection	Type A + 6mA DC
Housing fire ranges	UL94 V-0
Impact protection	IK08
Electrical protection	Over current protection Residual current protection Surge protection Over / Undervoltage protection Over / Under frequency protection Over temperature protection
Enclosure ratings	IP65
Working altitude	≤2000m
Certification	CE, RoHS, Reach
Certification Standard	EN 300 328 V2.2.2:2019 EN IEC 61851-1:2019 EN 300 330 V2.1.1:2017 EN IEC 61851-21-2 EN 301 489-1 V2.2.3:2019 EN IEC 61000-6-1:2019 EN 301 489-3 V2.1.1:2019 EN 61000-6-3:2007+A1 EN 301 489-17 V3.2.0:2017 EN 62311:2008

Warranty	3 years
Operating temperature	-30°C ~ +50°C
Work humidity	Max. 95% non-condensing
Status indicator	LED
Communication	Wi-Fi & Bluetooth
Start mode	Plug to Charge / RFID Card / App
Installation	Wall-mounted/ Pole-mounted

4. PACKING LIST

Item	icon	Quantity
Wall plug		6
M4*32mm screw		6
M4*22mm screw		1
Drilling template		1
Cable holder		1
Bootlace ferrule		3
RFID card		2
Cable clip		1
M3.5*12mm screw		2

5. PRE-INSTALLATION PREPARATION

5.1 ELECTRICAL PREPARATION

- Calculate the existing electrical load to determine the available operating current.
- Calculate the distance to ensure minimal voltage drop.
- Use only copper conductors.
- Use copper wiring that meets local wiring regulations. The selected cable must support a continuous load of 32 A.
- The selected circuit protection device must include a Type A residual current device (RCD) and appropriate overcurrent protection.

5.2 REQUIRED MATERIAL

Item	Specification
Power cable	Operating current: 32A Cross section area: 6mm ²
RCBO	2P RCBO, 40 A (50 A is recommended if the ambient temperature is higher than 45°C), Type A, in compliance with local regulations.
RS485 cable	22 to 24AWG shielded twisted pair



The above items are not supplied and are customer-provided.

5.3 REQUIRED TOOLS



The following items are not supplied and are customer-provided.

Tools	Specification
Tape measure	5m
Marking tool	Pencil or marker
Level	Standard
Philips screwdriver	PH2
Hammer	Standard
Drill	Drill bit: $\Phi 6\text{mm}$
Wire stripper	6mm^2
Crimping tool	6mm^2
Digital multimeter	Standard
Voltage tester	Standard
EVSE test instrument	Standard

5.4 CONFIRM THE INSTALLATION POSITION

- Ensure the parking position is within reach of the charging cable.
- Ensure sufficient space to wrap and store the cable and insert the connector into the holster.
- Install at a height and orientation that ensures comfortable daily operation.
- Avoid placing the charger where physical impact or obstruction may occur (e.g., tight corners, door swings).
- Ensure the wall is stable enough to support the charger.
- Avoid installation in areas prone to flooding or where water may pool.
- For outdoor installations, choose a location sheltered from direct high-pressure water exposure.

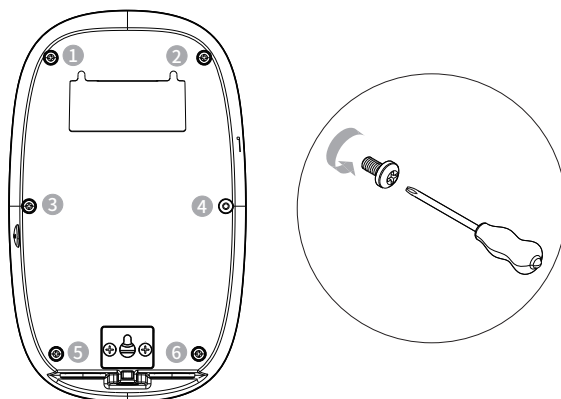
6. INSTALLATION



Ensure the power supply is disconnected before installation.

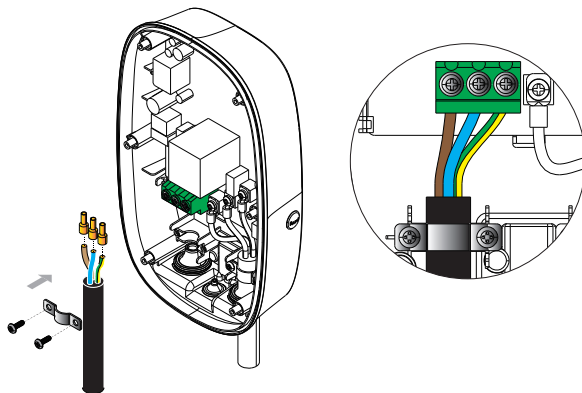
Your charger comes with a RCCB (safety switch). To make sure your installation is safe and complete, you are responsible for providing a 40A Miniature Circuit Breaker (MCB).

6.1 DETACH THE COVER



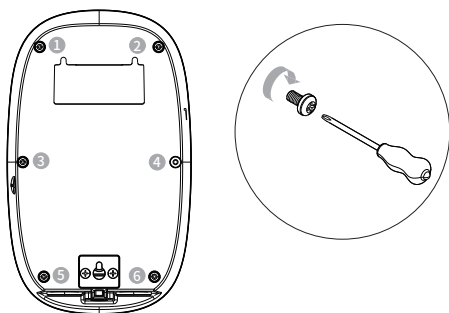
Use a PH2 Philips screwdriver to remove the six screws on the charger's back, thereby separating the cover from the enclosure.

6.2 CONNECT THE AC INPUT CABLE



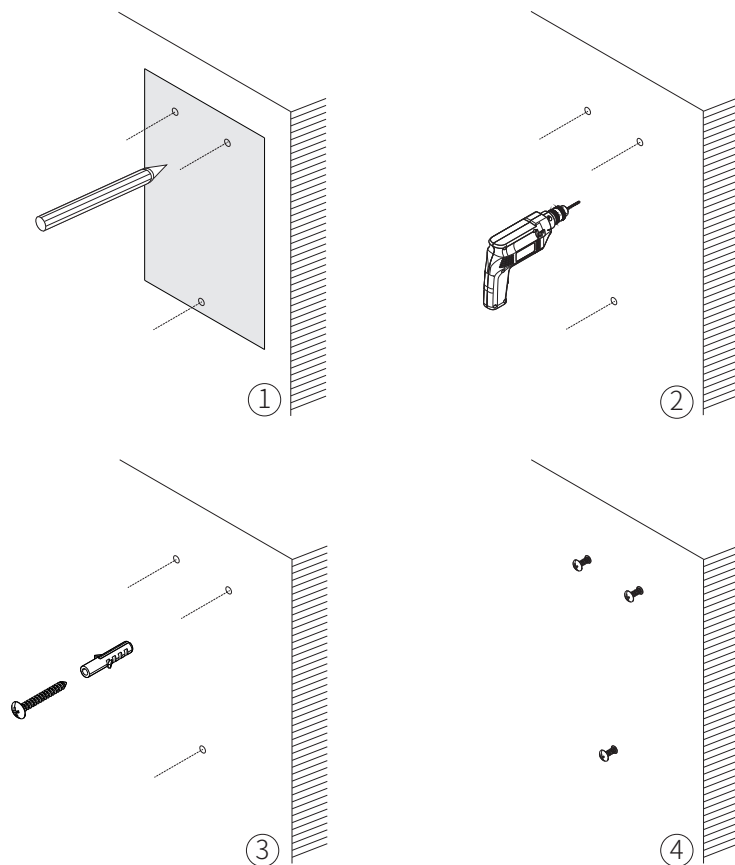
1. Feed the AC input cable through the left cable grommet.
2. Strip the cable (12 mm) and crimp a bootlace ferrule onto each conductor.
3. Loosen the terminal block screws and insert the conductors into the correct ports (L, N, PE).
4. Tighten the terminal block screws to secure the wires.
5. Use the cable clip to clamp and secure the AC cable.

6.3 ASSEMBLE THE COVER AND ENCLOSURE



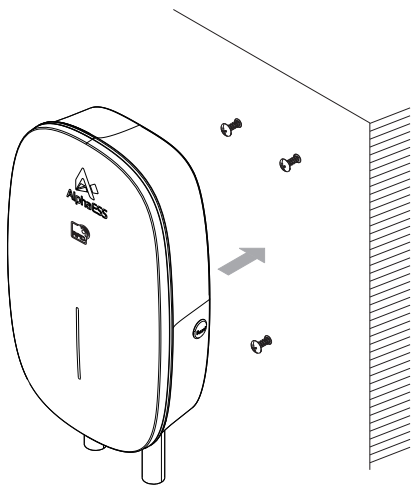
Ensure the cover is properly aligned, then close it to seal the enclosure. Secure it by tightening the six screws located on the back of the charger.

6.4 DRILL HOLES, INSERT WALL PLUGS AND SCREWS



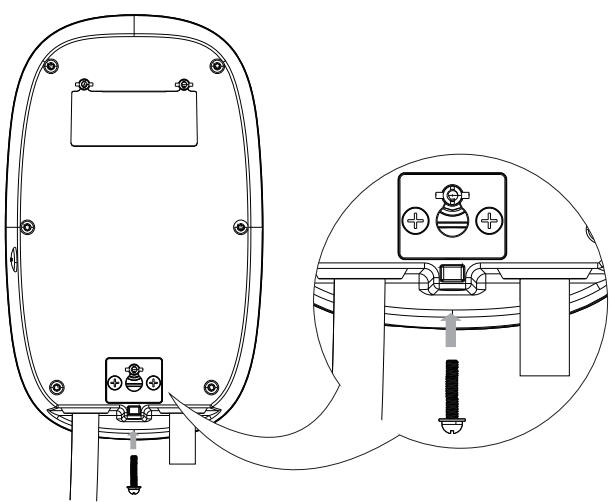
1. Smoothly affix the drilling template to the wall. Using a pencil, accurately mark the drilling points on the wall through the template's pre-marked holes.
2. Using a power drill with a masonry bit, drill holes at the marked locations to a depth of 35 mm.
3. Fully insert the provided wall anchors into the drilled holes until they are flush with the wall surface.
4. Partially screw the mounting screws into the anchors, leaving a 5 mm gap between the screw heads and the wall to form anchor hooks.

6.5 HANG THE CHARGER ONTO THE HOOK



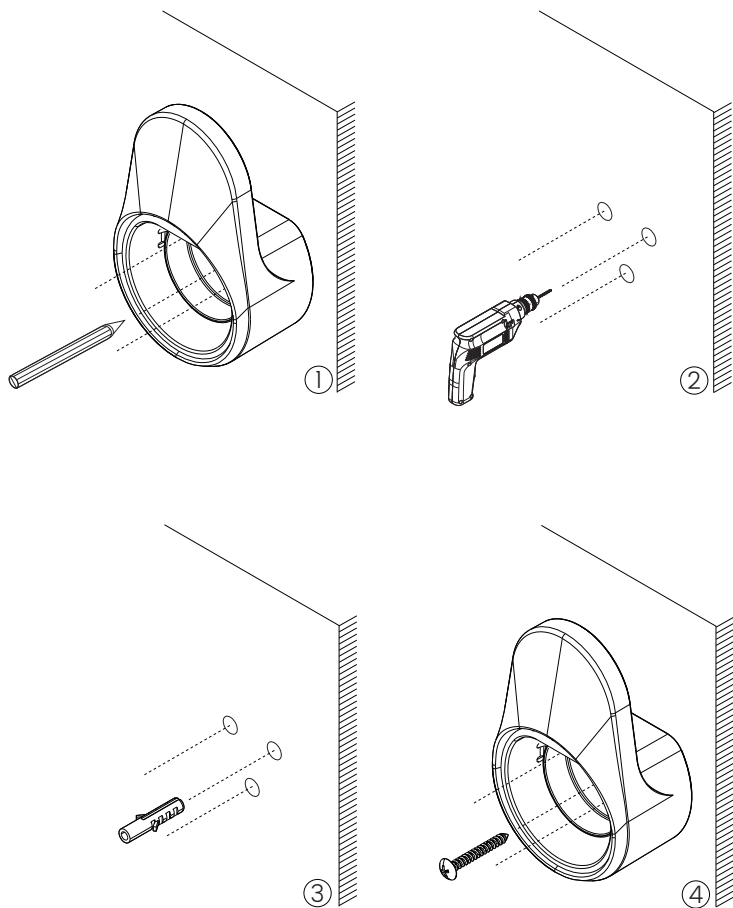
Hang the charger onto the three screws.

6.6 SECURE THE CHARGER ONTO THE WALL



Tighten the bottom locking screw to securely fasten the charger onto the wall.

6.7 INSTALL THE CABLE HOLDER



1. Hold the cable holder against the wall in the desired position. Using a pencil, mark the drilling points on the wall through its mounting holes.
2. Using a power drill fitted with a masonry bit, drill holes at the marked locations to a depth of 35 mm.
3. Fully insert the wall anchors into the drilled holes until they are flush with the wall surface.
4. Secure the cable holder by inserting and fastening the screws through the mounting holes.

7. 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.

7.1 COMMISSIONING VIA APP

1. Install the Evcharge App on a smartphone.
2. Create an account and log in.
3. Follow the instructions on the App to complete wizard settings and parameter settings.



App download



App User Guide

7.2 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.

For the detailed operation of AP mode, please scan the QR code below:



AP Mode Configuration Guide

8. LOAD BALANCING

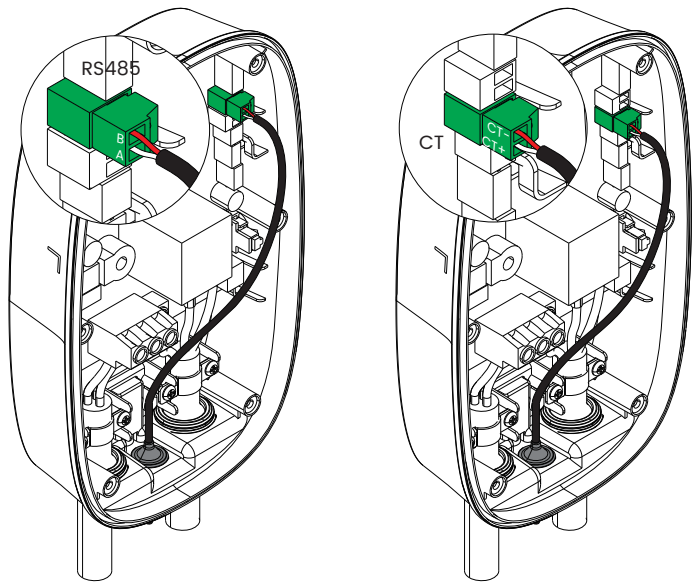


The EV charger supports load balance; however, the required accessories are sold separately.

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

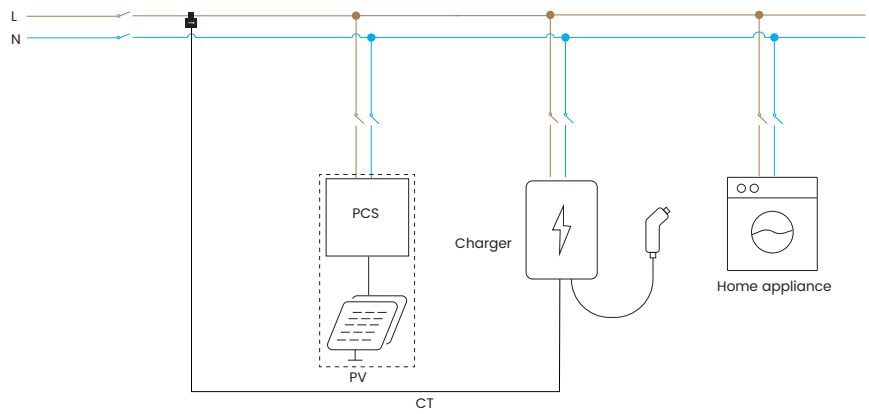
Solution No.	Required items	Power supply	Fuse current	Software configuration
B49010016	CT x 1	Single phase	Fuse current ≤50A	Evcharge App or Access point (AP)
B49010102	CT x 1 Meter x 1	Single phase	Fuse current ≤100A	

8.1 LOCATE THE CT & RS485 PORTS



8.2 LOAD BALANCING VIA THE CT ONLY (SINGLE-PHASE)

Wiring

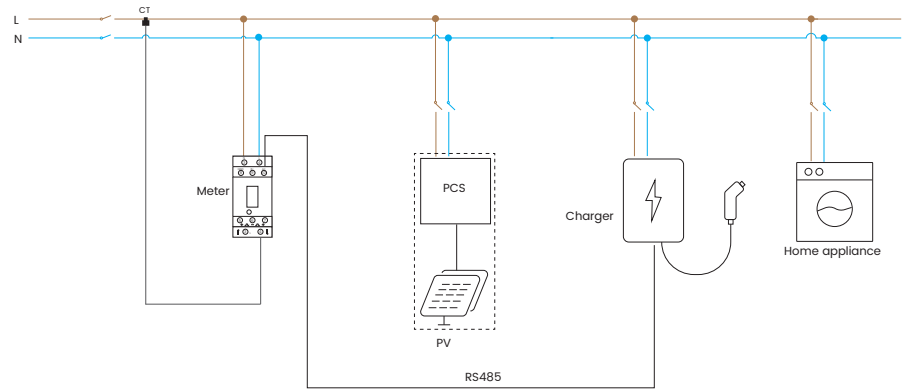


Wiring sequence

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

8.3 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	-	CT-Red
	White	-	CT-White

8.4 CONFIGURE THE 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.

8.4.1 BY APP

Please refer to the section in the App User Guide.

- How to Manage Load Balance

8.4.2 BY AP MODE

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

- Load balancing in a residential scenario

9. CHARGER USAGE

9.1 PLUG TO CHARGE

Factory default: APP-control via Wi-Fi.

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

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

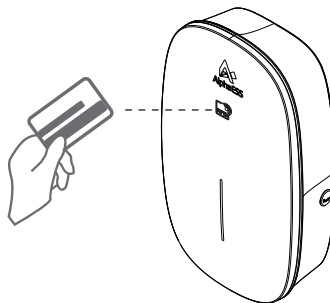
9.2 CONTROL CHARGING VIA APP

Please refer to the the section in App user guide:

- How to Start a Charging Session at Home

9.3 CHARGING BY TAPPING THE CARD

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



10. INDICATOR

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

11. TROUBLESHOOTING

Indicator color	EV charger status	Indicator status	Solution
Red	Relay adhesion	Steady red	Please contact after-sales
	Leakage current fault	Cycle: on for 500 ms, then off for 500 ms once, followed by 3 s off.	
	CP fault	Cycle: on for 500 ms, then off for 500 ms, twice; followed by 3 s off.	
	Overcurrent fault	Cycle: on for 500 ms, then off for 500 ms, 3 times; followed by 3 s off.	
	Reverse polarity fault	Cycle: on for 500 ms, then off for 500 ms, 4 times; followed by 3 s off.	
	Leakage current loop anomaly (self-check)	Cycle: on for 500 ms, then off for 500 ms, 5 times; followed by 3 s off.	
	Input terminal overheat fault	Cycle: on for 500 ms, then off for 500 ms, 6 times; followed by 3 s off.	
	Relay Overheat	Cycle: on for 500 ms, then off for 500 ms, 7 times; followed by 3 s off.	
Red + Yellow	Output voltage fault	Cycle: on for 500 ms, then off for 500ms, 9 times; followed by 3 s off.	Please try again 10 minutes later
	Undervoltage fault	Cycle: yellow on for 2 s, followed by the red flashing once (on for 500 ms, off for 500 ms), then 3 s off.	
	Overvoltage fault		
	Overfrequency fault	Cycle: yellow on for 2 s, followed by the red flashing twice (on for 500 ms, off for 500 ms), then 3 s off.	
	Underfrequency fault		
	Red + Yellow	Smart meter communication failure	Yellow on for 2 s, followed by the red flashing 4 times (on for 500 ms, off for 500 ms), then 3 s off.
Current transformer (CT) anomaly		Yellow on for 2 s, followed by the red flashing 5 times (on for 500 ms, off for 500 ms), then 3s off.	

Indicator color	EV charger status	Indicator status	Solution
Red +	Charging connector lock anomaly	Yellow on for 2 s, followed by the red flashing 6 times (on for 500 ms, off for 500 ms), then 3 s off.	Please contact after-sales
Yellow	Charging connector current anomaly	Yellow on for 2 s, followed by the red flashing 7 times (on for 500 ms, off for 500 ms), then 3 s off.	
White	BOOT security verification failed or security chip is malfunctioning	Cycle: Flashing white twice (on for 200 ms, then off for 1000 ms), followed by 5000 ms off.	
	The charger in a disabled state	Steady white	

12. ROUTINE 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.

13. STORAGE & 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.

14. 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.

15. RECYCLING & DISPOSAL



This product should not be disposed of with general household waste. It contains electronic components and metals that may be harmful to the environment.

Please follow these steps:

- Contact your local municipality or recycling center for EV charger disposal instructions.
- Remove the device by a certified professional before recycling.
- Do not burn, crush, or disassemble the charger.



Manufacturer: Shenzhen EN Plus Tech Co., Ltd.

Service Tel.: +61485989929

E-mail: info@impowerau.com