

Teison



# Teison Smart mini

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TS-EVC07-003

TS-EVC11-003

TS-EVC22-003



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# Product overview

Smart charger, Small size, Stylish design

Easy control via mobile APP, always being the most reliable and safe home charger.



# Product features



## Solid design wallbox

Meet IP65 & IK08 standard by lab test excellent water protection.



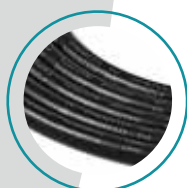
## Indicator light

Showing real time charging status



## Smart mini

Teison smart components highly integrated in a 228.5x228.5x100 mm Size mini body



## TUV certified

All parts passed CE Certificates, and tested by TUV.



## Smart charging

The smartphone App can realize the remote control and organize. Integration with OCPP 1.6 J-SOIN system.

## **Real Smart**

- Control your smart wallbox through Teison App by Bluetooth, WIFI and 4G
- Developed based on OCPP 1.6 J-SON
- Automatic identification
- Max charging Current adjustable
- Remote reach out of every charging process
- Charging records in Cloud
- Scheduled charging to save on your electricity bill
- OTA for new features

## **Highest safety**

- PCV 0 housing with 2.0~3.0 mm thick exudes robustness and protects inside components from external influences.
- The housing is made from materials specially developed for top heat dissipation and with flame retardant coating.
- Completely meets all requirements of the CE applicable standards.
- AC + DC faults detection
- Real-time monitoring for heat and all instabilities during charging process

# Parameter

| Specification             | Model  | TS-EVC07-003   | TS-EVC11-003      | TS-EVC22-003      |
|---------------------------|--|--|-------------------|-------------------|
| Electrical Properties     | Voltage  | 230V AC ±10%   | 380V AC ±10%      | 380V AC ±10%      |
|                           | Output Current   | 32A  | 16A               | 32A               |
|                           | Frequency  | 50/60Hz  | 50/60Hz           | 50/60Hz           |
|                           | Output Power   | 7kw  | 11kw              | 22kw              |
|                           | Residual current protection                                      | TYPE A (AC 30MA)   |                   |                   |
| Design                    | Charging Outlet  | 4M charging cable with type1/2 plug or type2 socket  |                   |                   |
|                           | Housing Material   | PCV0 for outdoor   |                   |                   |
|                           | Installation Method  | Wall-mount/Floor-stand   |                   |                   |
|                           | Communication Protocol   | OCPP 1.6 J-SON   |                   |                   |
|                           | Safety Standard  | EN 61851-1   |                   |                   |
|                           | Warranty   | 2 years  |                   |                   |
| Environmental Performance | Protection Level   | IP65   |                   |                   |
|                           | Temperature/Humidity   | -30~50°C/5%~95% without condensation   |                   |                   |
|                           | Working Altitude   | <2000M   |                   |                   |
|                           | Application Site   | Indoor/Outdoor   |                   |                   |
|                           | Working temperature  | -30 C ~60 C  |                   |                   |
|                           | Storage temperature  | -40 C ~70 C  |                   |                   |
|                           | Working humidity   | 5%~95%, No condensation  |                   |                   |
|                           | Altitude   | ≤2000m   |                   |                   |
|                           | Salt spray test  | Meet IEC 61851-1: 2017   |                   |                   |
|                           | Atmospheric pressure   | 80kPa~101kPa   |                   |                   |
|                           | Temperature and humidity cycle                                   | Meet IEC 61851-1: 2017   |                   |                   |
| Functionality             | Network Gateway  | Bluetooth and WIFI as default  |                   |                   |
|                           | Mobile APP (Ios and Android supported) functions under Bluetooth | Scheduled charging、Start charging、Stop charging、Current adjustment (memorable)、plug and play charging switch on APP、Charging status shown on APP |                   |                   |
|                           | Added APP functions under WIFI / 4G                              | Charging records shown on mobile APP、view and update the PIN code、firmware updating function(OTA)、multiple wallbox control                       |                   |                   |
| Packing Details           | Product Size   | 228.5*228.5*100mm  | 228.5*228.5*100mm | 228.5*228.5*100mm |
|                           | Product Weight   | 4.4KG  | 5.2KG             | 5.4KG             |
| Optional Config           | Residual current protection                                      | TYPE B ( AC 30MA + DC 6 MA) as optional  |                   |                   |
|                           | Network Gateway  | 4G as optional   |                   |                   |
|                           | O-PEN detection  | as optional  |                   |                   |
|                           | RFID   | as optional ( with 3 RFID cards )  |                   |                   |
|                           | load balance   | RS485 meter as optional  |                   |                   |

# OCPP function list

| No. | Message                       | Support or not |
|-----|-------------------------------|----------------|
| 1   | Authorize                     | √              |
| 2   | BootNotification              | √              |
| 3   | ChangeAvailability            | √              |
| 4   | ChangeConfiguration           | √              |
| 5   | ClearCache                    | √              |
| 6   | DataTransfer                  | P              |
| 7   | GetConfiguration              | √              |
| 8   | Heartbeat                     | √              |
| 9   | MeterValues                   | √              |
| 10  | RemoteStartTransaction        | √              |
| 11  | RemoteStopTransaction         | √              |
| 12  | Reset                         | √              |
| 13  | StartTransaction              | √              |
| 14  | StatusNotification            | √              |
| 15  | StopTransaction               | √              |
| 16  | UnlockConnector               | √              |
| 17  | TriggerMessage                | √              |
| 18  | GetDiagnostics                | √              |
| 19  | DiagnosticsStatusNotification | √              |
| 20  | FirmwareStatusNotification    | √              |
| 21  | UpdateFirmware                | √              |
| 22  | GetLocalListVersion           | √              |
| 23  | SendLocalList                 | √              |
| 24  | ReserveNow                    | √              |
| 25  | CancelReservation             | √              |
| 26  | ClearChargingProfile          | √              |
| 27  | GetCompositeSchedule          | P              |
| 28  | SetChargingProfile            | √              |

√ – Supported

P – Need to be combined with the back-end

# Product size and packaging

**Product size:** 228.5\*228.5\*100mm

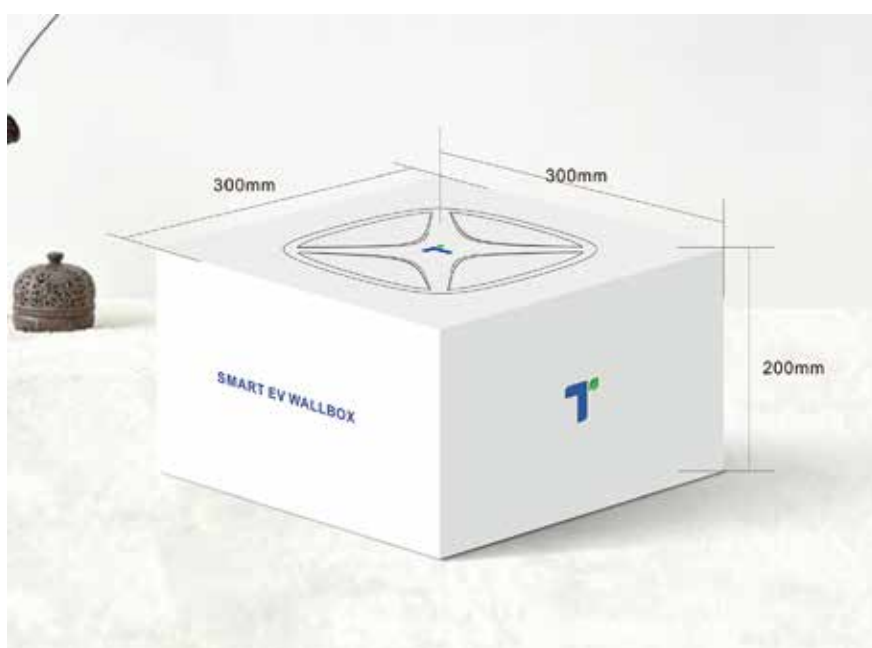
**Product net weight:** 4.4kg

**Product gross weight:** 5.4kg



## Package:

300\*300\*200mm





# Product installation

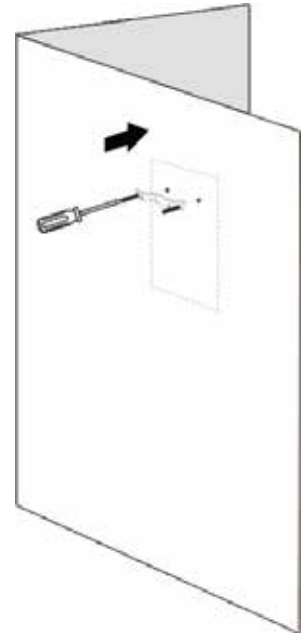
## Installation method 1



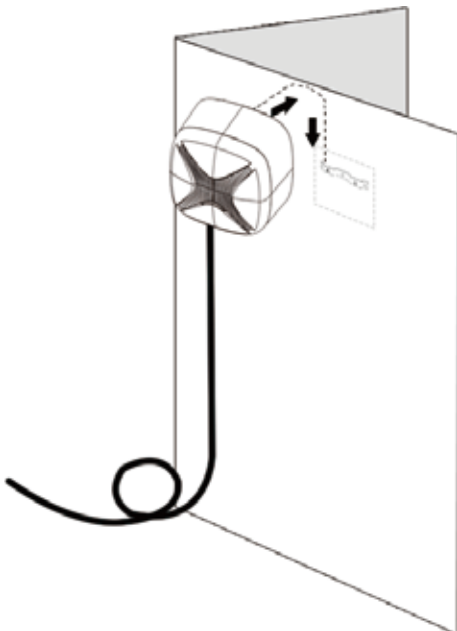
1. Use a drill to make mounting holes in suitable locations on the wall.



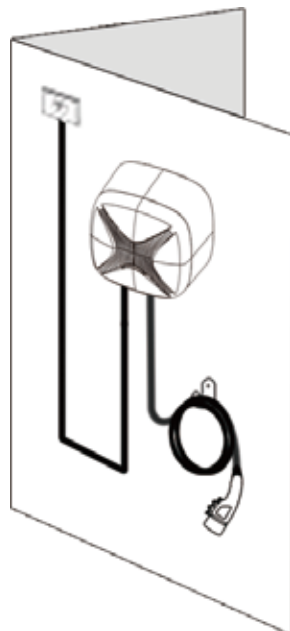
2. Tap the expansion bolts into the mounting holes.



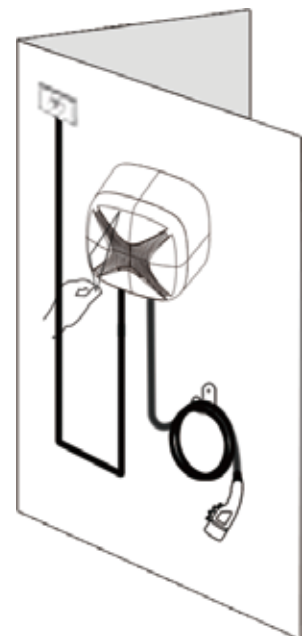
3. Mounting the wallbox back plate on the wall.



4. Place the wallbox in from the top down and fix it to the back plate

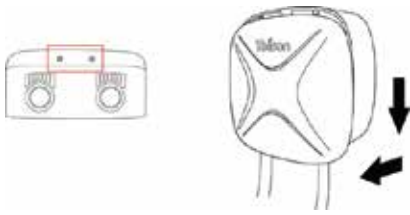


5. Organise and secure the incoming cables of the wallbox.

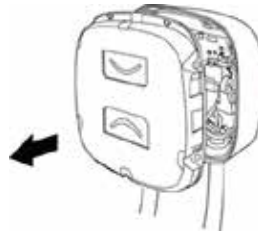


6. Remove the protective film from the front panel to start using the product.

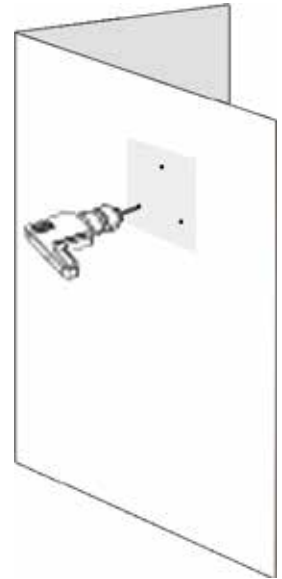
## Installation method 2



1. Remove the two screws at the bottom of the cover plate, then push down and remove it from the wallbox.



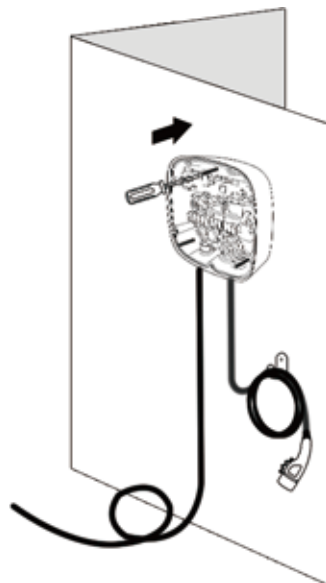
2. Remove the 7 screws around the internal panel and take the panel down.



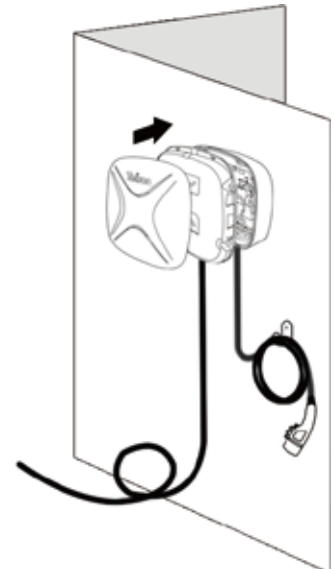
3. Use a drill to make mounting holes in suitable locations on the wall.



4. Tap the expansion bolts into the mounting holes.



5. Mounting the disassembled back cover on the wall



6. Install the removed front panel back in order.

## Wiring Diagram

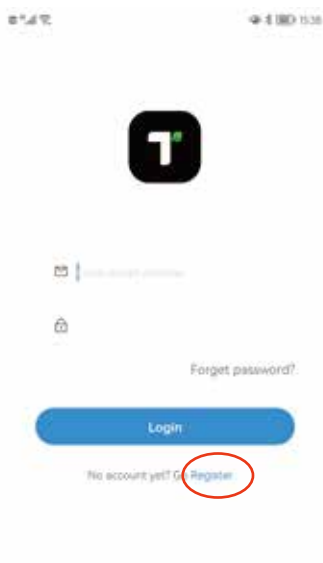


**Single-Phase**

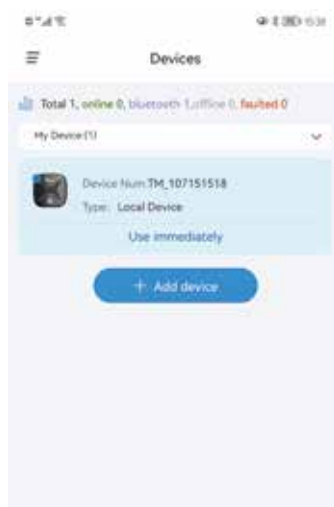


**Three-Phase**

# Start to charge (APP)



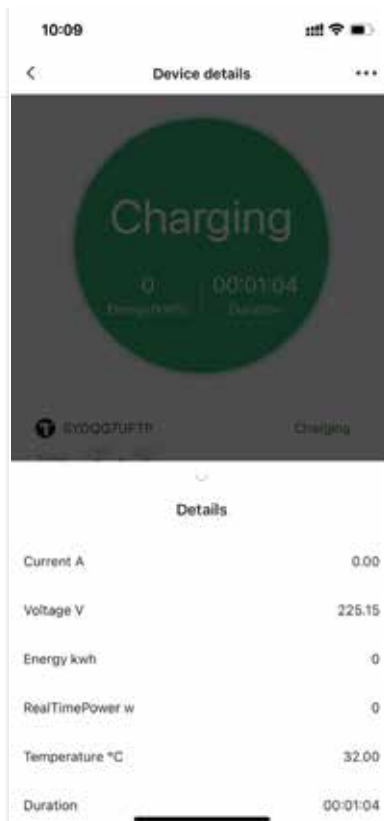
Register your information and login



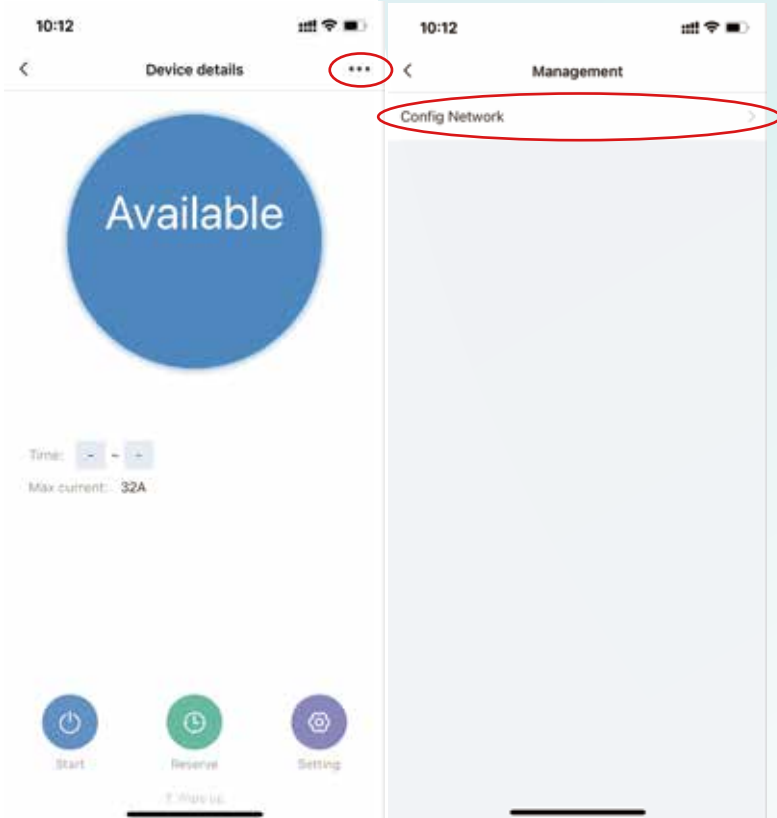
After success login you will find the available ev charger



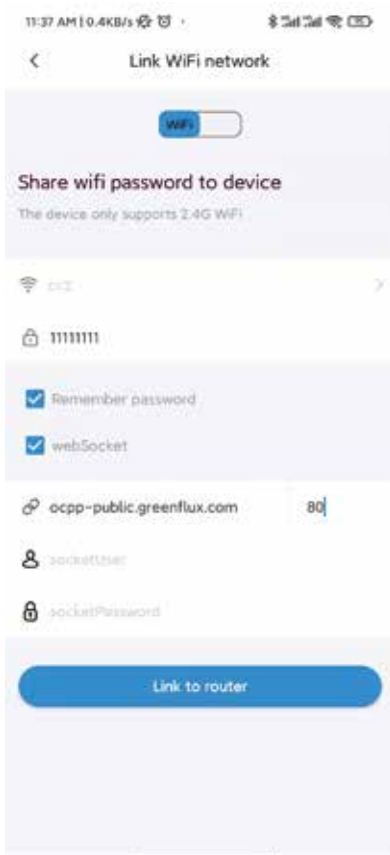
Choose ev charger into the main operation page



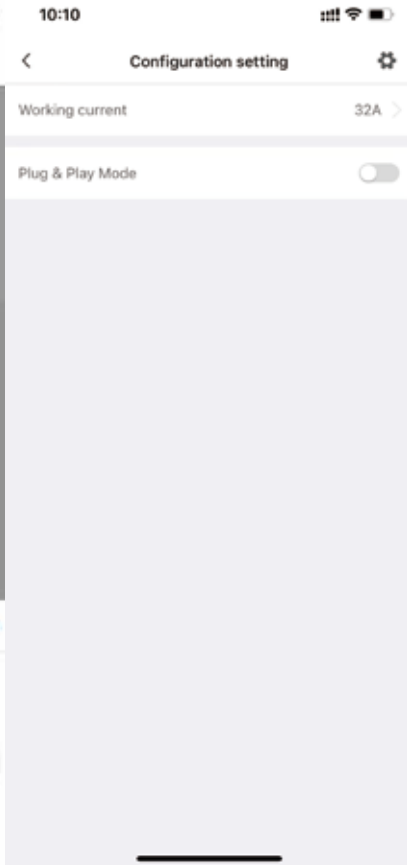
According to your need to enter charging mode, scheduling charging, current adjusted mode or set plug and play mode ,etc to control your ev charger



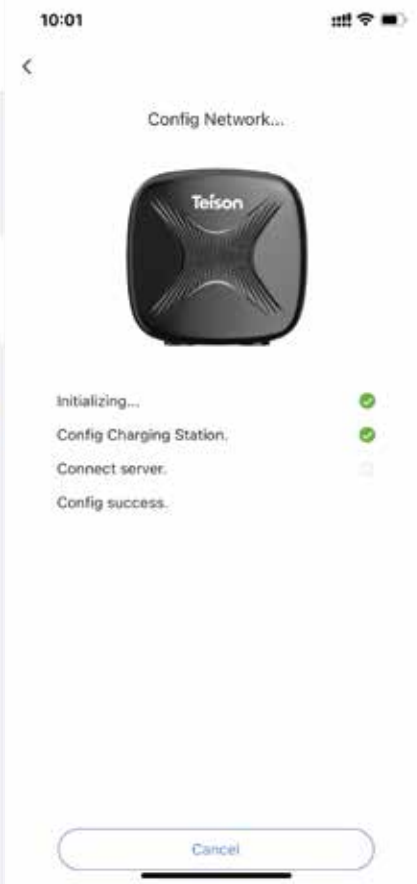
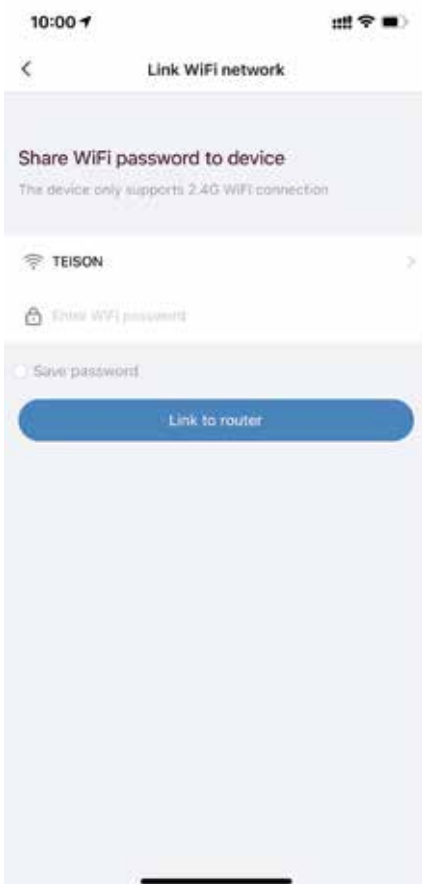
Set network ,choose WIFI or 4G (only under WIFI OR 4G mode ), share the WIFI No. and password to ev charger



Edit the web socket to get the wallbox connected to specified OCPP system

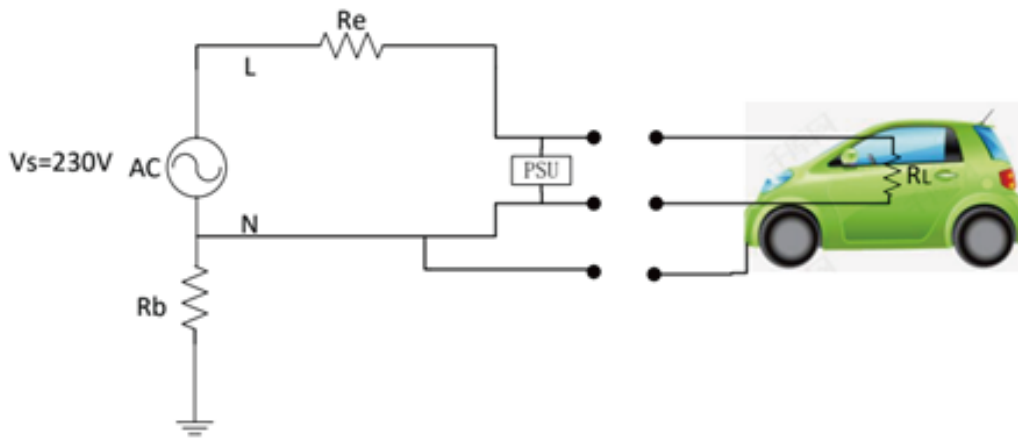


To set delay charging , charging end time by date , hour and minute , and to set the max charging current , and plug and play mode.



After completing the network setting, the ev charger will be online,if Bluetooth is still online, the users can control the Ev charger by Wlfi 、 4g or Bluetooth .

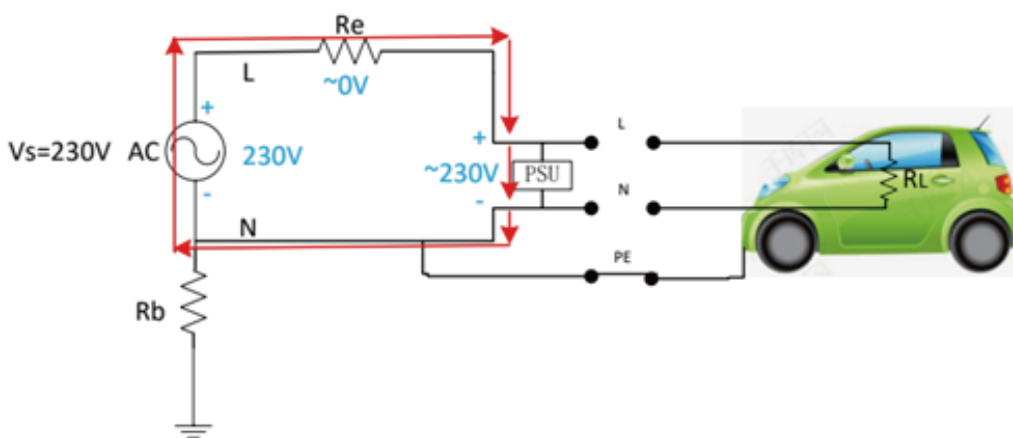
# o-PEN: Earth rod solution



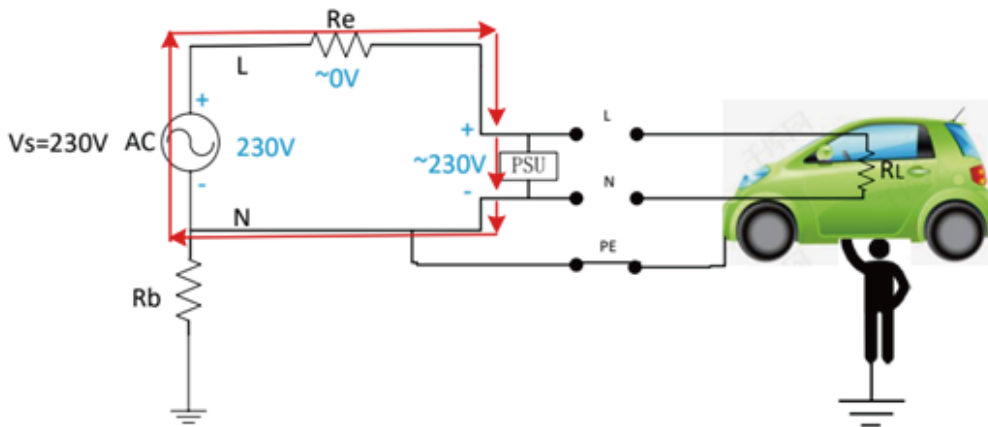
In line with BS 7671: 2018: Amendment 2: 2020 Regulation 722.411.4.1 (iv) Protection against electric shock in a single-phase installation is provided by a device which electrically disconnects the vehicle from the live conductors of the supply and from protective earth in accordance with regulation 543.3.3.101 (ii) within 5 s in the event of the utilisation voltage at the charging point, between the line and neutral conductors, being greater than 253 V rms or less than 207 V rms. The device shall provide isolation and be selected in accordance with Table 537.4. Equivalent means of functionality could be included within the charging equipment. Closing or resetting of the device shall be possible only if the voltage between line and neutral conductors is in the range 207 to 253 V rms.

Preconditions: Some use scenarios cannot provide a good ground (PE) for the charging box, and most cars themselves do not provide a conductive path to the ground, and the car body is generally connected to the PE;

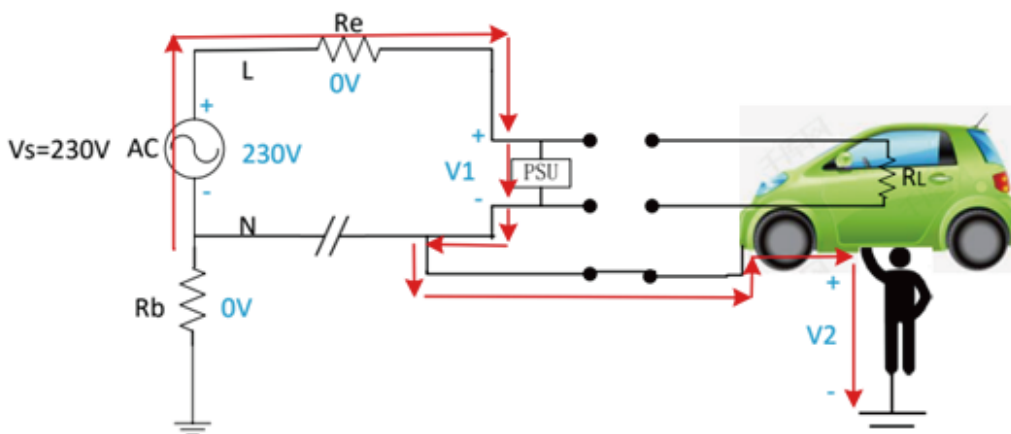
1. Under normal circumstances, the source end of the N line is well grounded, the car is insulated from the ground, and no circuit loop is formed. It is safe at this time.



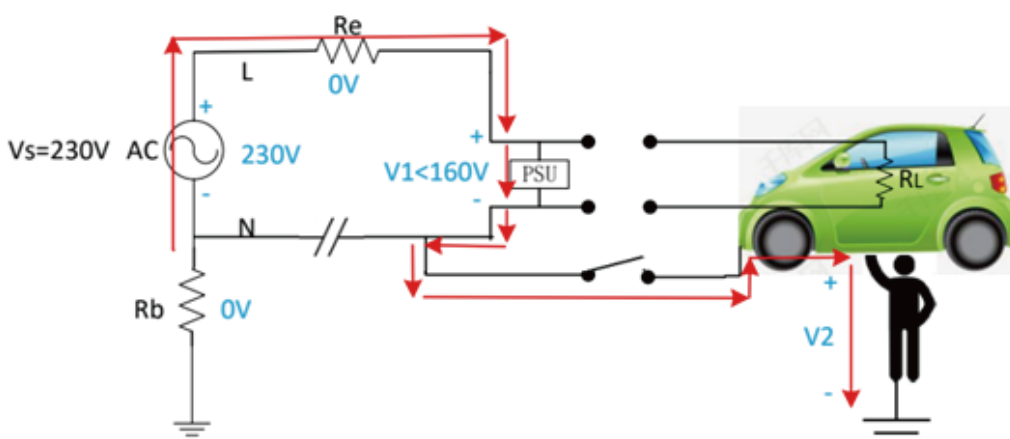
2. When the charging box plug is connected and the human body contacts the car body, it provides a conductive circuit between the car body and the ground. The human body is equivalent to a large resistance and provides a conductive circuit. At this time, there is already a risk. If the incoming line N of the charging pile is well grounded at this time, since  $R_b$  is much smaller than the equivalent resistance of the human body, the current flowing through the human body is very small and the human body does not perceive it. People are safe.



3. When the N line of the charging box is abnormally disconnected or presents a large impedance, the circuit loop will be conducted through the human body to the earth, which will cause the human body to get an electric shock. At this time, the usual L and N leakage protection will be invalid, and new methods are needed. protect.



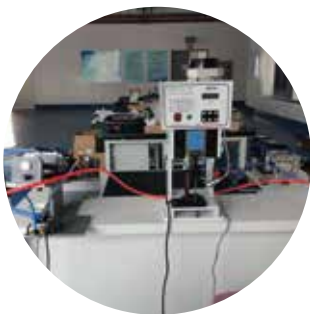
4. Measure 1:  $V_1 + V_2 = 230V$ , check  $V_1$ , when  $V_1 < 170V$ , disconnect all paths within 1S to avoid the risk of human electric shock.



# Fault handling

| Red light flash times | Condition                              | LED Status                         |
|-----------------------|--|------------------------------------|
| 1                     | Electric leakage                       | Below indicator light flash slowly |
| 2                     | Over-voltage                           |                                    |
| 3                     | Under-voltage                          |                                    |
| 4                     | Over-current                           |                                    |
| 5                     | Over-temperature                       |                                    |
| 6                     | Electric leakage self-testing abnormal |                                    |
| 7                     | /                                      |                                    |
| 8                     | CP pilot abnormal                      |                                    |
| 9                     | Relay abnormal                         |                                    |
| 10                    | /                                      |                                    |
| 11                    | System 12v abnormal                    |                                    |
| 12                    | System -12V abnormal                   |                                    |





## Teison Profile

Teison is a professional EV charging products manufacturer located in Yangzhou city, China. Our products including ev charging station, mode 2 portable ev charger, mode 3 ev charging cable and other accessories, have been applied to more than 32 countries in Europe, North America, Asia and Oceania. Covers an area of 2500 square meters, 50 workers and specialized R&D engineers' team and 4 production lines. Besides ,we have our own QC and test department to control the quality.

Teison passed the ISO9001 quality management system certification, ISO14001 environmental management system certification. Products passed the TUV test ,widely used in different occasions all over the world.

Teison always insists on quality&service first. We sincerely welcome clients around the world to our factory for quality and production line check.

# Factory history

2017

Establish Teison Brand&Start intl business&Start from home wall box

2018

Portable ev charger

2019

Fast growing in eu market

2020

Ocpp ev charging station

2021

New base established

2021

**NEW OFFICE**

# More Products



## Teison Portable pro

TS-PEC-002

- IP65
- Easy carry
- LCD display
- TUV & CE approved
- 6-32A adjust current



## Teison Portable mini

TS-PEC-003

- IP65
- Easy carry
- CE approved
- 6-16A adjust current



## Teison Wallbox home

TS-EVC07-001 (S) / TS-EVC11-001 (S) / TS-EVC22-001 (S)

- Small volume
- Easy installation
- Patent product



## Teison Home Pro

TS-EVC07-002 (S) / TS-EVC11-002 (S) / TS-EVC22-002 (S)

- Home load-balance
- Open communication protocols more oem functions



## Teison pro smart - ocpp

TS-EVC07-002c-001 (S) / TS-EVC11-002c-001 (S) / TS-EVC22-002c-001 (S)

- RFID
- 4G/WIFI/Ethernet
- Smart APP
- OCPP 1.6 J-son



## EV Charging Cable

- TPU material
- More wear-resisting
- Colour customization