

# EV Charging Station Manual

It is recommended to read the instructions before use



# Catalog

## Safety instructions

Safety instructions	1
---------------------	---

## Product Overview

Product Overview	2
------------------	---

## Product parameters

Type 2 Parameter introduction	3
-------------------------------	---

Type 1 Parameter introduction	4
-------------------------------	---

GB/T Parameter introduction	5
-----------------------------	---

TS-NACS Parameter introduction	6
--------------------------------	---

## Operating Instructions

### Charging steps

Standby status	7
----------------	---

Waiting for card swipe status	7
-------------------------------	---

Start-up device	8
-----------------	---

Start charging	9
----------------	---

Stop charging	9
---------------	---

### Key operation instructions

How to set the charging current	10
---------------------------------	----

How to set time delay charging	11
--------------------------------	----

How to set up regular charging	11
--------------------------------	----

How to access the menu page	12
-----------------------------	----

Menu page basic key operation	12
-------------------------------	----

Load Balancing Page	17
---------------------	----

How to use the App	18
--------------------	----

Control Box LCD Display	19
-------------------------	----

## Installation and operation instructions

Installation operation	22
------------------------	----

## Common Troubleshooting

Common Troubleshooting	23
------------------------	----

## Charging Status and Indicator Light

Definition of Indicator Light	24
-------------------------------	----

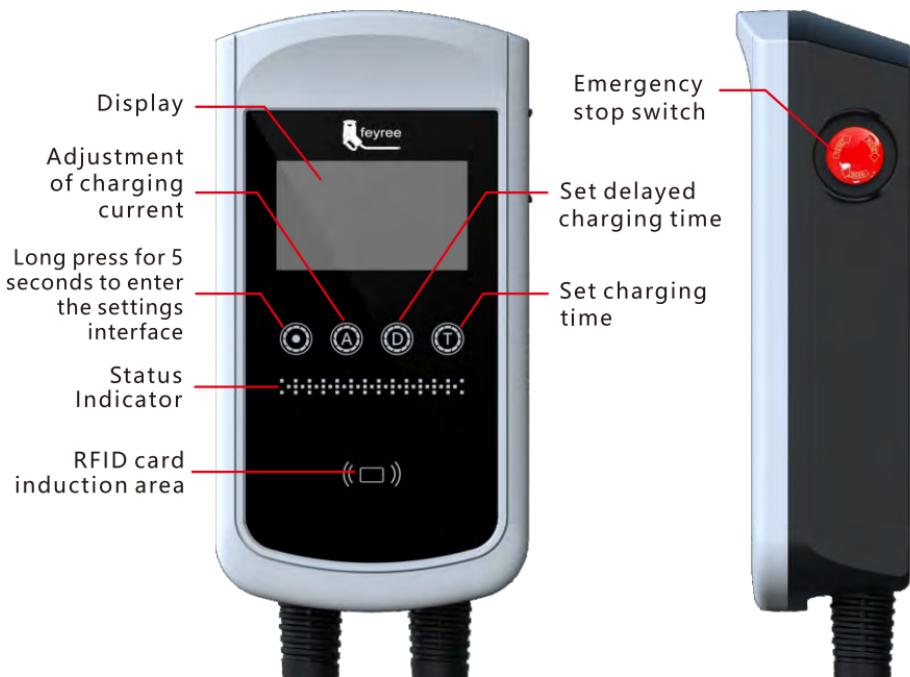
# Safety instructions

- ⚠ **Warning :** The charging station must be grounded (PE) in order to use it properly
- ⚠ **Warning :** Do not place flammable, explosive or combustible materials, chemicals, combustible vapors or other hazardous materials near the charging station.
- ⚠ **Warning :** Keep the charging plug head clean and dry, if dirty, please wipe it with a clean and dry cloth, it is strictly forbidden to touch the charging plug core by hand when it is charged
- ⚠ **Warning:** It is strictly forbidden to use the charging station when the charging plug or charging cable is defective, cracked, worn, broken or when the charging cable is exposed
- ⚠ **Warning :** Do not attempt to disassemble, repair or modify the charging station. If you need to repair or modify it, please contact the relevant staff. Improper operation may cause the charging station damage, water leakage, leakage of electricity, short circuit, electric shock and other risks
- ⚠ **Warning :** Use with caution during thunderstorms
- ⚠ **Warning :** Children should not approach or use the charging station during the charging process to avoid electric shock
- ⚠ **Warning :** Do not drive the car while it is charging. You can only start charging When the car is stationary. For hybrid Cars, please turn off the engine before charging
- ⚠ **Warning :** In case of emergency during the operation of the product, press the emergency stop button immediately to cut off all input and output power
- ⚠ **Warning :** The use of the charging post is prohibited in the following cases and the manufacturer should be contacted immediately:
  - \* Charging Station shell is broken
  - \* When the charging cable on the charging station is damaged, cracked, frayed, broken, etc.
  - \* Lightning strikes charging station
  - \* Accidents or fires near charging stations
  - \* Water in the charging station
  - \* The length of the charging cable on charging station is not long enough to connect to the car, an extension cable needs to be installed

# Product Overview

## Brief description :

This product is used for electric vehicle AC charging, the product design is highly simple, divided into Type2, Type1, GB/T , Tesla four kinds of specifications. It is equipped with swipe card and plug-and-play charging methods and multiple safety protection functions. with good dustproof and waterproof function, can be operated safely outdoor.



# Type 2 Parameter introduction

Type2 IEC61851

Power Rating	7.6KW			11KW			22KW		
Load balancing	/	/	●	/	/	●	/	/	●
APP	/	●	●	/	●	●	/	●	●
RFID Card	/	●	●	/	●	●	/	●	●
Type A RCD	●	/	●	/	●	/	●	/	/
Type B RCD	/	●	/	●	●	/	●	/	●
Power supply system	Single Phase			Three Phase			Three Phase		
Rated voltage	85V-264V			380V±20%			380V±20%		
Rated current	8-10-13-16-20-25-32A			8-10-13-16A			8-10-13-16-20-25-32A		
Input Frequency	50Hz/60Hz			50Hz/60Hz			50Hz/60Hz		
Protection level	IP65			IP65			IP65		
Working temperature	-35°C ~ +55°C			-35°C ~ +55°C			-35°C ~ +55°C		
Storage temperature	-40°C ~ +80°C			-40°C ~ +80°C			-40°C ~ +80°C		
Standby power	<3W			<3W			<3W		
Working humidity	5% ~ 95% non-condensation			5% ~ 95% non-condensation			5% ~ 95% non-condensation		
L*W*H	310*161*86 mm			310*161*86 mm			310*161*86 mm		
Cable Specification	3G 6mm <sup>2</sup> +1*0.5mm <sup>2</sup> 3G 6mm <sup>2</sup> +2*0.5mm <sup>2</sup>			5G 2.5mm <sup>2</sup> +1*0.5mm <sup>2</sup> 5G 2.5mm <sup>2</sup> +2*0.5mm <sup>2</sup>			5G 6mm <sup>2</sup> +1*0.5mm <sup>2</sup> 5G 6mm <sup>2</sup> +2*0.5mm <sup>2</sup>		

## Control box function :

- 1.Earth leakage protection (restart recovery)
- 2.O vervoltage and undervoltage protection (self-test recovery)
- 3.Lightning protection
- 4.Overcurrent protection
- 5.Overheat protection
- 6.Grounding protection
- 7.RFID card function (can be set according to user needs)
- 8.Appointment Time
- 9.WIFI

## Product Performance :

- 1.Charging plug according to IEC 62196-2 standard
- 2.Charging control box in accordance with IEC 61851 control principle
3. Insulation resistance: >1000Ω
4. Terminal temperature rise: <50K
5. Mechanical life: Charging Plug plugging and unplugging times (Non operating state)>10000 times
6. External impact: Charging station's Plug can withstand the 1-meter drop and 2 tons of vehicle crushing
7. With emergency stop function

# Type 1 Parameter introduction

Type 1 SAE J1772

Power Rating	7.6KW			9.6KW			12KW		
Load balancing	/	/	●	/	/	●	/	/	●
APP	/	●	●	/	●	●	/	●	●
RFID Card	/	●	●	/	●	●	/	●	●
Type A RCD	●	/	●	/	●	/	●	/	/
Type B RCD	/	●	/	●	●	/	●	/	●
Power supply system	Level 1 and Level 2			Level 1 and Level 2			Level 1 and Level 2		
Rated voltage	85V-264V			85V-264V			85V-264V		
Rated current	8-10-13-16-20-25-32A			8-10-13-16-20-25-32-40A			8-10-13-16-20-25-32-40-50A		
Input Frequency	50Hz/60Hz			50Hz/60Hz			50Hz/60Hz		
Protection level	IP66			IP66			IP66		
Working temperature	-35°C ~ +55°C			-35°C ~ +55°C			-35°C ~ +55°C		
Storage temperature	-40°C ~ +80°C			-40°C ~ +80°C			-40°C ~ +80°C		
Standby power	<3W			<3W			<3W		
Working humidity	5% ~ 95% non-condensation			5% ~ 95% non-condensation			5% ~ 95% non-condensation		
L*W*H	310*161*86 mm			310*161*86 mm			310*161*86 mm		
Cable Specification	3G 6mm <sup>2</sup> +1*0.5mm <sup>2</sup> 3G 6mm <sup>2</sup> +2*0.5mm <sup>2</sup> 3G10AWG+1*18AWG 3G10AWG+2*18AWG			3G 8mm <sup>2</sup> +1*0.5mm <sup>2</sup> 3G 8mm <sup>2</sup> +2*0.5mm <sup>2</sup> 2G8AWG+1*10AWG+1*18AWG 2G8AWG+1*10AWG+2*18AWG			3G 10mm <sup>2</sup> +1*0.5mm <sup>2</sup> 3G 10mm <sup>2</sup> +2*0.5mm <sup>2</sup> 2G6AWG+1*8AWG+1*18AWG 2G6AWG+1*8AWG+2*18AWG		

## Control box function :

- 1.Earth leakage protection (restart recovery)
- 2.Ovvervoltage and undervoltage protection (self-test recovery)
- 3.Lightning protection
- 4.Overcurrent protection
- 5.Overheat protection
- 6.Grounding protection
- 7.RFID card function (can be set according to user needs)
- 8.Appointment Time
- 9.WIFI

## Product Performance :

- 1.Charging plug according to SAE J1772 standard
- 2.Charging control box in accordance with IEC 61851 control principle
- 3.Insulation resistance: >1000Ω
- 4.Terminal temperature rise: <50K
- 5.Mechanical life: Charging Plug plugging and unplugging times (Non operating state)>10000 times
- 6.External impact: Charging staion's Plug can withstand the 1-meter drop and 2 tons of vehicle crushing
- 7.With emergency stop function

# GB/T Parameter introduction

GB / T									
Power Rating	7.6KW			11KW			22KW		
Load balancing	/	/	●	/	/	●	/	/	●
APP	/	●	●	/	●	●	/	●	●
RFID Card	/	●	●	/	●	●	/	●	●
Type A RCD	●	/	●	/	●	/	●	/	/
Type B RCD	/	●	/	●	●	/	●	/	●
Power supply system	Single Phase			Three Phase			Three Phase		
Rated voltage	85V-264V			380V±20%			380V±20%		
Rated current	8-10-13-16-20-25-32A			8-10-13-16A			8-10-13-16-20-25-32A		
Input Frequency	50Hz/60Hz			50Hz/60Hz			50Hz/60Hz		
Protection level	IP66			IP66			IP66		
Working temperature	-35°C ~ +55°C			-35°C ~ +55°C			-35°C ~ +55°C		
Storage temperature	-40°C ~ +80°C			-40°C ~ +80°C			-40°C ~ +80°C		
Standby power	<3W			<3W			<3W		
Working humidity	5% ~ 95% non-condensation			5% ~ 95% non-condensation			5% ~ 95% non-condensation		
L*W*H	310*161*86 mm			310*161*86 mm			310*161*86 mm		
Cable Specification	3G 6mm <sup>2</sup> +1*0.5mm <sup>2</sup> 3G 6mm <sup>2</sup> +2*0.5mm <sup>2</sup>			5G 2.5mm <sup>2</sup> +1*0.5mm <sup>2</sup> 5G 2.5mm <sup>2</sup> +2*0.5mm <sup>2</sup>			5G 6mm <sup>2</sup> +1*0.5mm <sup>2</sup> 5G 6mm <sup>2</sup> +2*0.5mm <sup>2</sup>		

## Control box function :

- 1.Earth leakage protection (restart recovery)
- 2.O vervoltage and undervoltage protection (self-test recovery)
- 3.Lightning protection
- 4.Overcurrent protection
- 5.Overheat protection
- 6.Grounding protection
- 7.RFID card function (can be set according to user needs)
- 8.Appointment Time
- 9.WIFI

## Product Performance :

- 1.Charging plug according to GB/T 20234 standard
- 2.Charging control box in accordance with GB/T 18487 control principle
- 3.Insulation resistance: >1000Ω
- 4.Terminal temperature rise: <50K
- 5.Mechanical life: Charging Plug plugging and unplugging times (Non operating state)>10000 times
- 6.External impact: Charging station's Plug can withstand the 1-meter drop and 2 tons of vehicle crushing
- 7.With emergency stop function

# TS-NACS Parameter introduction

TS-NACS									
Power Rating	7.6KW			9.6KW			12KW		
Load balancing	/	/	●	/	/	●	/	/	●
APP	/	●	●	/	●	●	/	●	●
RFID Card	/	●	●	/	●	●	/	●	●
Type A RCD	●	/	●	/	●	/	●	/	/
Type B RCD	/	●	/	●	●	/	●	/	●
Power supply system	Level 1 and Level 2			Level 1 and Level 2			Level 1 and Level 2		
Rated voltage	85V-264V			85V-264V			85V-264V		
Rated current	8-10-13-16-20-25-32A			8-10-13-16-20-25-32-40A			8-10-13-16-20-25-32-40-50A		
Input Frequency	50Hz/60Hz			50Hz/60Hz			50Hz/60Hz		
Protection level	IP66			IP66			IP66		
Working temperature	-35°C ~ +55°C			-35°C ~ +55°C			-35°C ~ +55°C		
Storage temperature	-40°C ~ +80°C			-40°C ~ +80°C			-40°C ~ +80°C		
Standby power	<3W			<3W			<3W		
Working humidity	5% ~ 95% non-condensation			5% ~ 95% non-condensation			5% ~ 95% non-condensation		
L*W*H	310*161*86 mm			310*161*86 mm			310*161*86 mm		
Cable Specification	3G 6mm <sup>2</sup> +1*0.5mm <sup>2</sup> 3G 6mm <sup>2</sup> +2*0.5mm <sup>2</sup> 3G10AWG+1*18AWG 3G10AWG+2*18AWG			3G 8mm <sup>2</sup> +1*0.5mm <sup>2</sup> 3G 8mm <sup>2</sup> +2*0.5mm <sup>2</sup> 2G8AWG+1*10AWG+1*18AWG 2G8AWG+1*10AWG+2*18AWG			3G 10mm <sup>2</sup> +1*0.5mm <sup>2</sup> 3G 10mm <sup>2</sup> +2*0.5mm <sup>2</sup> 2G6AWG+1*8AWG+1*18AWG 2G6AWG+1*8AWG+2*18AWG		

## Control box function :

- 1.Earth leakage protection (restart recovery)
- 2.Ovvervoltage and undervoltage protection (self-test recovery)
- 3.Lightning protection
- 4.Overcurrent protection
- 5.Overheat protection
- 6.Grounding protection
- 7.RFID card function (can be set according to user needs)
- 8.Appointment Time
- 9.WIFI

## Product Performance :

- 1.Charging plug according to TS-NACS standard
- 2.Charging control box in accordance with IEC 61851 control principle
- 3.Insulation resistance: >1000Ω
- 4.Terminal temperature rise: <50K
- 5.Mechanical life: Charging Plug plugging and unplugging times (Non operating state)>10000 times
- 6.External impact: Charging staion's Plug can withstand the 1-meter drop and 2 tons of vehicle crushing
- 7.With emergency stop function

# Operating Instructions

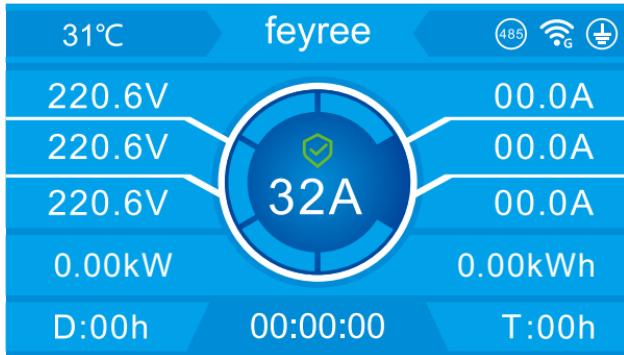
## Pre-use preparation :

1. Ensure that there are no open flames around the equipment and that the surrounding space is not blocked
2. Ensure that the equipment casing and charging cable are not damaged
3. Ensure proper maintenance of equipment
4. Make sure the emergency stop button is popped up, if it has been pressed, Please rotate the button clockwise to turn the button back.

## Charging steps :

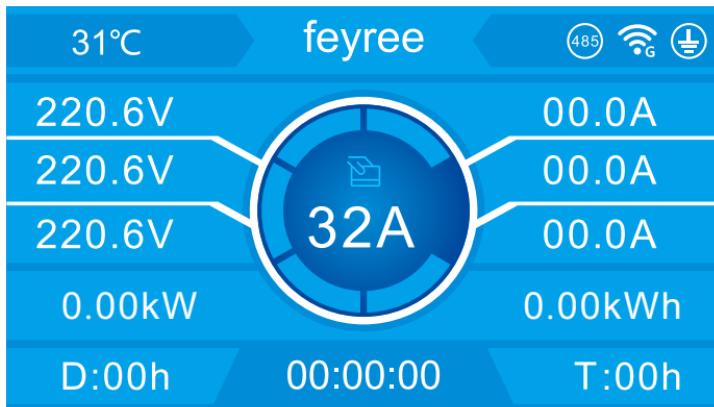
### (1) Standby status

1. When the charging station is in standby mode, the interface shows that the device is ready for charging, as shown in the figure below:
2. The indicator light on the case (for Wi-Fi function only) is green and always on;



### (2) Waiting for card swipe status

After park your car near the charging station, take the charging plug from the plug holder , set the charging current ,then insert the charging plug into the connector of the electric vehicle. Please make sure that the plug is inserted in place and the connection is safe and reliable. When the charging plug monitors that the charging plug is inserted correctly , It will enter the status of identity verification, as shown in the following figure:



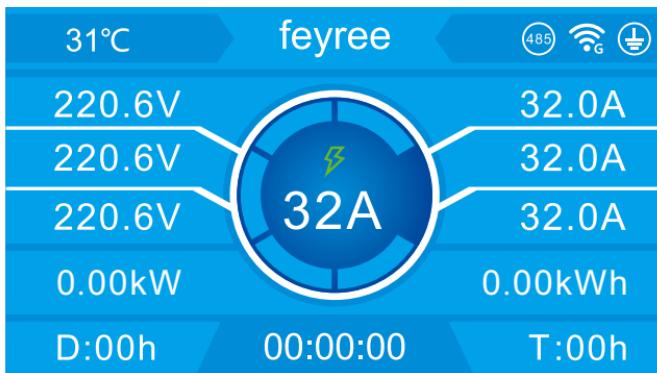
### (3) Start-up device

1. Use RFID cards to authorize the use of charging station



(4) Start charging

1. The device starts charging and the interface displays the charging status and information parameters as shown in the following figure:
2. The indicator light on the case (for Wi-Fi function only) is green breathing;



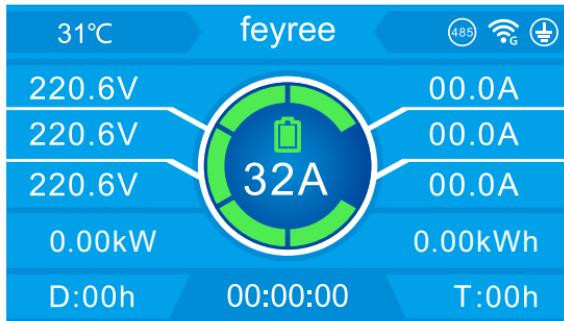
(5) Stop charging

1. When the vehicle is fully charged, the charging station will automatically stop charging; in case of emergency, you can manually press the Emergency stop button:
2. RFID card can also be used to authorize stopping the use of the charging station during charging;

**STOP**



3. The display is as follows



4. The indicator light on the case (for Wi-Fi function only) is green flashing or green always on;

#### Key Operation Instructions :

##### (1) How to set the charging current

1. When the charging plug is not inserted in the car, press the button A on the panel to modify the charging current. After use the RFID card to turn on the charging, the device will output the corresponding current. the current setting range is determined by the max charging power of charging station , 7KW and 22KW version can set the current of 8-10-13-16-20-25-32A, 11KW version can set the current of 8-10-13-16A.



## (2) How to set the time delay charging

1. When the charging plug is not inserted in the car , touch the button on the panel shows below to modify the delayed charging time, after swiping the card and turn on the charger , the device will start charging after "X" hours according to the delayed time setted. which means the charger will start charging after "X" hours , and the range can be set from 0 to 15 hours (each touch increase an hour);



## (3) How to set the timing charging

1. touch the button on the panel shows below to modify the timing charging , after swiping the card and turn on the charger , The device will keep charging for "X" Hours according to the time you setted. which means the charger will keep charging for "X" hours , after the time runs out , the charger will stop charging. you can set the time from 0 to 15 hours (each touch increase an hour);



#### (4) How to access the menu page

1. Press the area in the picture below for 5 seconds to enter the setting menu (without RFID function version charging station)
2. Press the area in the picture below for 5 seconds, then swip the RFID card to enter the settings menu (with RFID function version charging station)

Long press for 5 seconds to enter the settings page



#### (5) Menu page basic key operation

1. Touch the panel icon area to upward, downward, enter, back and increase or decrease the parameters of the menu.

Note: When the Charging plug is plugged in, it is not possible to enter the charging plan and load balance setting function. Need to pull out the charging plug to operate.

