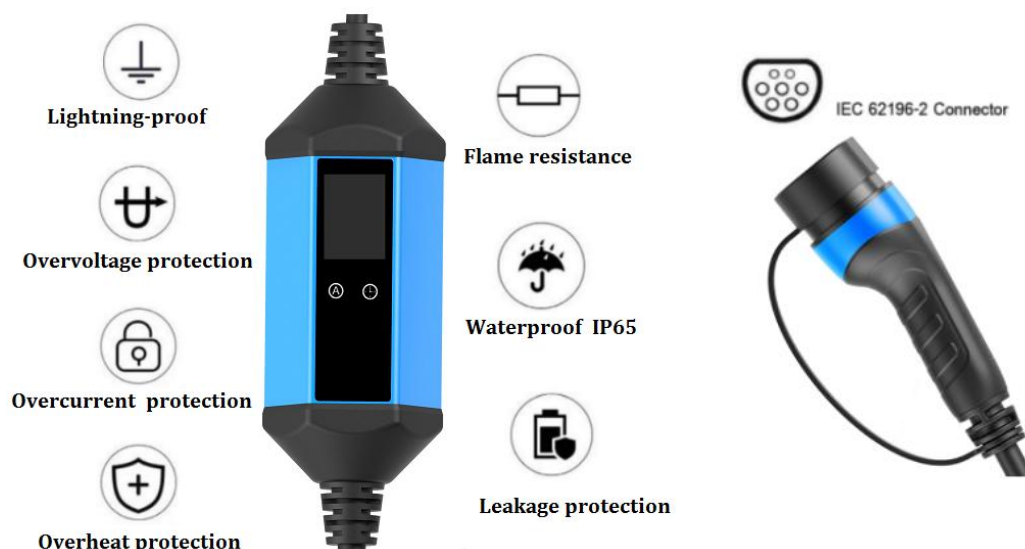


# Portable EV Charger Manual



## Feature

charging plug meet IEC 621962-2 standard

Control box meet IEC 61851 control principle

Excellent protection performance, protection grade IP65-Working condition

Operating temperature:-30℃ to+60℃

## Mechanical Properties

Mechanical life: no-load plug in/pull out>10000times

- Impact of external force: can afford 1m drop and 2T vehicle run over pressure

## Electric Performance

Rated voltage and current: 415V AC 8A 10A 13A 16A 25A 32A

- Insulation Resistance:>1000MD (DC500V)
- Terminal Temperature Rise:< 50K

## Control Box Function

- Leakage protection (restart recover).
- Over voltage under-voltage protection (self-checking recover).
- Lightning protection.
- Over current protection.
- Overheat protection.
- Communication protection.

## Charger Cord

Specification:5G6mm<sup>2</sup>+1\*0.75mm<sup>2</sup>

## Meets Standards

IEC 621962-2

## Cautions

- Do not step on the cable, do not pull it, do not fold it up and do not knot it.
- Do not drop the control unit or put heavy things on it.
- Do not place the charging cable near high-temperature objects.
- Do not place the unit in the car or in a closed room while charging.
- Do not use the device in extreme temperatures (normal operating range (-30°C to+60°C)).
- The power supply input cable should have at least 5G6mm<sup>2</sup>, With a standard CEE plug. It is proposed to complete the distribution of electricity by professionals.
- Make sure that the charging plug, the cable and the control box are free from any signs of Scratches, rust, cracks, etc.
- Do not charge if the power outlet is damaged, rusted, cracked or loosely connected.
- Before charging, make sure the power plug and outlet are compatible.
- The Green Power LED indicator is always on when the battery is fully charged.

## Warnings

- Use only on the mains with fault current circuit breaker.
- Do not use this product if the EV charging cable is damaged.
- For use with EV charging only.
- The product must be grounded.
- Do not use this unit with an extension cord or adapter.
- Do not insert any fingers into the charging plug.
- The unit contains no user serviceable parts. Do not try to repair or service the device yourself.
- If the unit does not work properly in accordance with the operating instructions, do not use this unit. Contact your dealer for a repair or replacement.
- Use the product under normal away from high temperature erosive materials or ignition source.
- Do not contact metal conductor to prevent electric shock accident.
- Product shell is made of thermoplastic, please do not pound it to avoid reducing performances.

## Remote charging operation

### 1) Download application

Download the Tuya Smart App in the app store



Tuya Smart

### 2) Configure the charging device network

Please make sure that the charging device and the mobile phone are under the same WIFI network (Nonsupport WIFI in 5G),and you are near by the charging device.When the device is turned on, Waitting the WIFI state of charging device is displayed as follows, it indicates that network distribution operation is required.



Waiting for distribution network operation



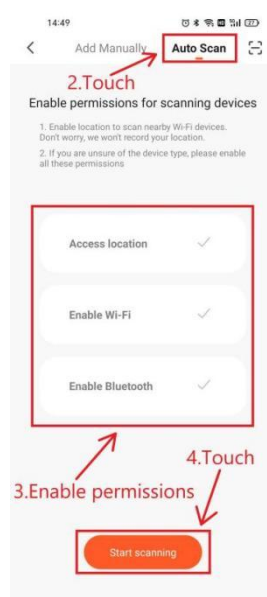
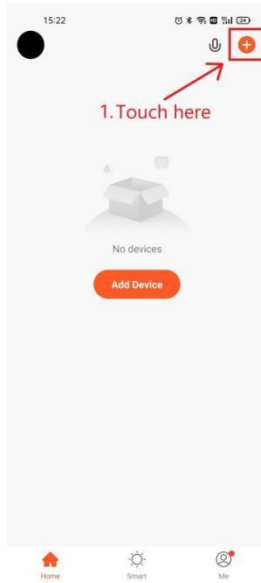
Connected to the internet



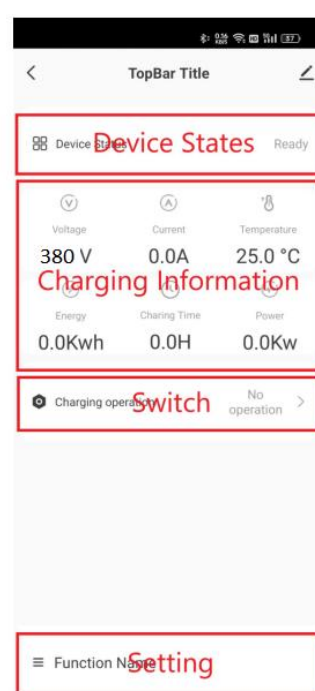
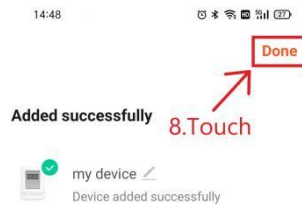
Not connected to the internet

The following is a demonstration of distribution network operation process:

1. Open the Tuya smart App, touch the plus sign in the upper right corner, auto scan, enable permissions, found device, like the following:



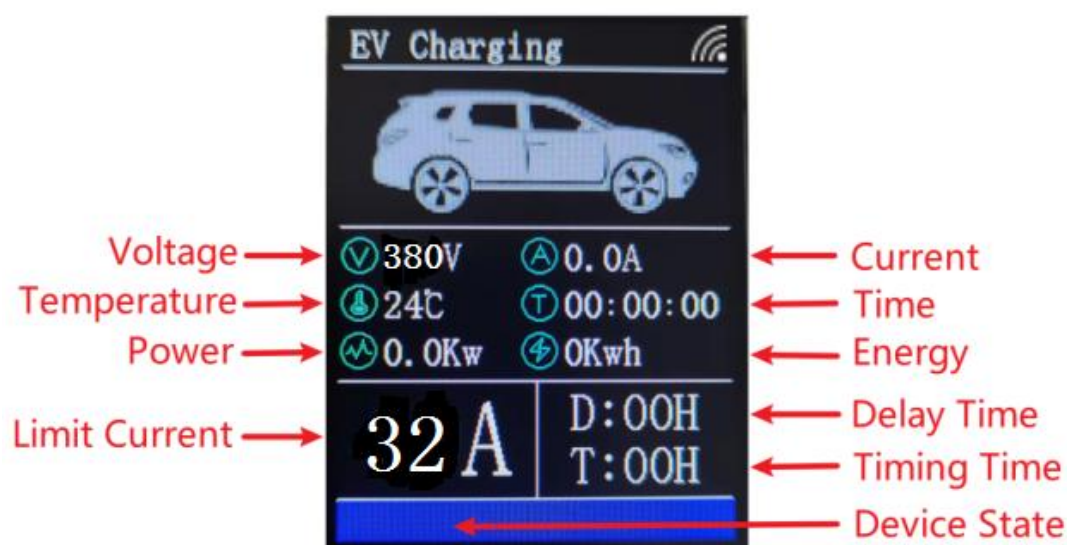
2. Enter WIFI information, wait device added successfully, display of my device



3. In case of timeout or failure in network distribution, please check whether the WIFI network has been connected to the network and the router works in 2.4G frequency band or the Bluetooth connection fails because the mobile phone device is too far away from the charging device. In case of the above, the network distribution can be successful by repeating the above operations. If the problem still cannot be solved, please contact customer service for handling.

**Please make sure that the charging gun is inserted into the vehicle before starting charging. In the icon in the upper right corner of the charging display interface, there are functions such as equipment information, offline reminder, sharing equipment, etc. Users can operate by themselves if they need to use it. Note: After clicking the Remove Device button at the bottom, the network needs to be re-allocated, which can be done when changing the home WIFI password or changing the device user.**

### Led Screen Description:



### Touch current adjustable function

Current adjustment: 8A 10A 13A 16A 25A 32A adjustment, touch switch "A" can switch

1. Turn on the power supply at the plug end, you can use the key "A" to touch the switching current and switch one gear at a time;
2. Check the current gear displayed on the display screen, confirm that the corresponding current gear is switched, and plug the gun head into the charging port on the car side to perform the set current for charging; The control box can only be touch-switched when it is waiting for connection; In the charging process, the charging is completed or the failure stage, the touch switch operation is invalid.

**Memory function:**After the set current gear is powered off, the memory can be saved, and

**the current gear before the power off can be restored after the next power on.**

hardware component			
Key type	Trigger event		Delay Time
Tap the delay key	Set the delay charging time, each time + 1 hour, with a maximum delay of 15 hours		0.1s
Long press the time key	Set the delay charging time, automatically + 1 hour every 2S, with a maximum delay of 15 hours		2s
Long press the delay key	Clear the historical accumulated power and reset it to zero		5s
Status type	Set value	Action state	Delay Time
Charging control	Voltage value of test point 1: $6 \pm 0.8V$	The relay closes and enters the charging state	0.1s
	Voltage value of test point 1: $9 \pm 0.8V$	After charging, the relay is disconnected	0.1s
	Voltage value of test point 1: $12 \pm 0.8V$	The socket is not connected and the relay is disconnected	0.1s
	Voltage value of test point 1: others	Communication failure, relay disconnected	0.1s
Grounding control	Grounding		
	Ungrounded		
Overvoltage and undervoltage	Line voltage $\geq 485V$	The relay is disconnected. When it drops to $475\pm 5V$ , the relay is closed and the cycle is infinite	
	Line voltage $\leq 130V$	Relay rises to $140\pm 5V$ , to be closed, to be closed	
	The line voltage is within the range of $130\sim 485V$	The relay closes and enters the charging state	1s
Overcurrent protection I <sub>e</sub> =8;10;13;16;25;32	The user sets the charging current I <sub>e</sub> and line current I. When $I_e + 8 > I > I_e + 4$ , Lasting for 5S	When the relay is disconnected, it will automatically recover after 10s. If it is still overcurrent after 3 cycles, it will be permanently disconnected	5s
	The user sets the charging current I <sub>e</sub> and line current I. When $I > I_e + 8$ , Lasting for 1s	The relay is permanently disconnected	5s
Electric leakage	Leakage current $> AC30mA$	The relay is disconnected and automatically recovers after 5min	1s
	There is no leakage in the line	The relay closes and enters the charging state	0.1s
Power on self-test	Self check normal	The relay closes and enters the charging state	1s
	BIT Fault	Relay off	0.1s

**The equipment status is shown in the following table:**

number	functional status	Definition description
1	Initial state (the blue bar is always on)	Power on self-test or reset
2	To be connected (the blue bar is always on)	The voltage of test point 1 is $9 \pm 0.8V$
3	Normal charging (green bar flashes)	The voltage of detection point 1 is $6 \pm 0.8V$ , and the relay is closed
4	Charging complete (the green bar is always on)	
5	Over temperature (red bar flashes once + error code 001)	When the temperature is more than $85^{\circ}C$ , disconnect the relay, wait until the temperature is less than $65^{\circ}C$ , and then turn on the charging
6	Undervoltage (red bar flashes twice + error code 002)	Voltage $<130V$
7	Overpressure (red bar flashes 3 times + error code 003)	Voltage $>485V$
8	Overcurrent (red bar flashes 5 times + error code 005)	When the line current is $ie + 4 < I \leq ie + 8$ , disconnect the relay for 5S, restart automatically after 10s, and repeat the permanent disconnection for three times. When $I > ie + 8$ , the relay is disconnected and the charging is over
9	Electric leakage (red bar flashes 7 times + error code 007)	The relay is disconnected and needs to be powered on again after troubleshooting before the relay can be closed
10	Abnormal communication (red bar flashes 9 times + error code 009)	The voltage of detection point 1 is $9.8v < U < 11.2V$ ; $6.8V < U < 8.2V$ ; $12.8V < U$ or $U < 5.2V$ ; The relay is disconnected