

ENGLISH

OWNER'S AND INSTALLATION MANUAL

ELECTRIC WATER HEATER

Special reminders

Before installing the electric water heater, check and confirm whether the grounding of the power socket is reliable. Otherwise, the electric water heater cannot be installed and used. Do not use extension cables. Improper installation and use of this electric water heater may cause serious injury and property damage.

Features

• Purpose:

The electric water heater is suitable for hot water shower and washing in families, enterprises and institutions, service industries and other places (not drinkable).

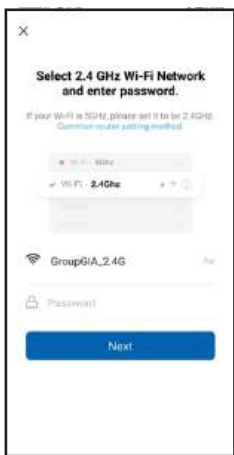
• Characteristic:

1. With temperature regulation function, the temperature can be adjusted flexibly in the range of 40°C ~ 80°C.
2. The heating indicator light indicates the current working state, and the indicator light displays the current water temperature.
3. Automatic control of heating and insulation ensure hot water supply at any time.
4. It has multiple protections such as overtemperature protection, water overpressure protection (automatic pressure relief when the inner tank pressure is too large), anti hot water backflow and so on. It has obtained the national safety certification, and its safety is more guaranteed.
5. Durable: it adopts high-quality heat-resistant stainless steel heating element and electrostatic dry powder enamel liner, and is equipped with liner anode protection device to prevent rust, corrosion and scaling, with long service life.
6. The insulation layer adopts thickened polyurethane overall foaming, which has good insulation effect, energy saving and power saving.
7. The water mixing valve is used to regulate the water outlet, which is simple and flexible.
8. Multi purpose: it can supply water for multiple water points at the same time.

Product specification

Rated Capacity (L)	30	50	80	100
Rated Power	1800W			
Rated Voltage	220-240V~50-60Hz			
Rated Pressure	0.8MPa			
Maximum Set Temperature	80°C			

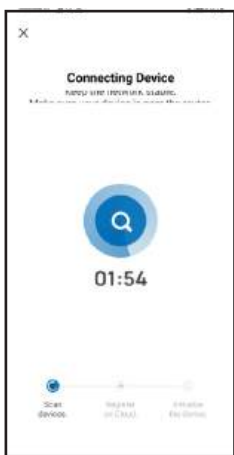
Adding a device



Step 3 : Select the Wi-Fi network that the device needs to access and fill in the corresponding network password, and then click “Next”.



Step 4 : Confirm that the “wifi” indicator on the device panel is in the state of blinking . Check “Confirm indicator rapidly blink” and then click “Next”.



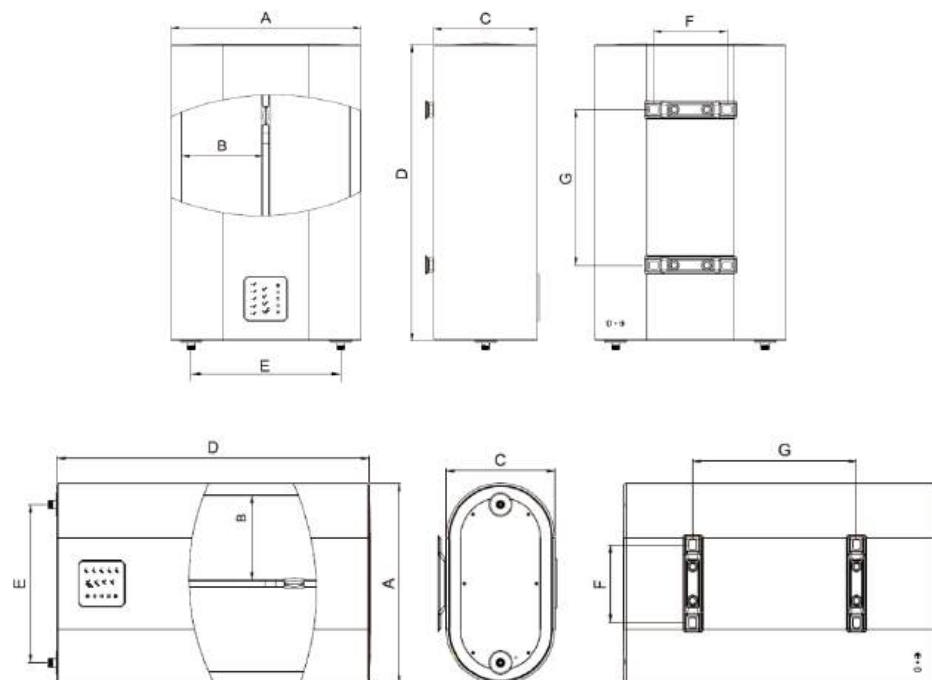
Step 5 : Wait for the network connection of the device.



Step 6 : Edit the device name, and then click “Done”.

Note: The electric water heater can only be bound to one APP account at a time. If it is bound to another APP account, the original APP account will be automatically unbound.

OVERALL DIMENSIONS



Capacity Dimension	30L	50L	73L	92L
A	516	516	556	556
B	220	220	240	240
C	280	280	300	300
D	575	804	1009	1219
E	406	406	441	441
F	199	199	199	199
G	207	422	560	720

Installation method

The electric water heater shall be installed by professional installation personnel in accordance with the requirements of the national standard of code for installation of electric water heater.

1. Installation Preparation

- (1) Professional installation personnel shall prepare installation tools and necessary measuring qualified inspection instruments.
- (2) Check whether the electric water heater is in good condition and whether the attached documents and accessories are complete.
- (3) Carefully read the operation manual to understand the function, operation method, installation requirements and installation method of the electric water heater to be installed.
- (4) To check the power supply of users, 230V~/50Hz power supply must be used. The electrical connection of electric water heater shall generally adopt special branch circuit, and its capacity shall be greater than 1.5 times of the maximum current value of electric water heater. The position of the separate fixed socket shall be placed in a safe position where there is no danger of electric shock and its water cannot be splashed. The separate fixed socket used by the electric water heater shall be inspected by visual inspection and special measuring devices (phase meter, test pen, grounding resistance meter, etc.) to ensure that the live wire and zero wire are installed correctly and grounded reliably. Carefully check whether the capacity of electric energy meter, wire and separate fixed socket meet the requirements of electric water heater. Check the water pressure of tap water with a pressure gauge. If the water pressure is greater than 0.8MPa, a pressure reducing valve shall be installed on the inlet pipe.
- (5) Assist users in selecting the installation position of electric water heater: avoid the place where flammable gas leaks or the environment with strong corrosive gas. Avoid places where strong electric and magnetic fields act directly. Avoid direct sunlight, rain and wind. Try to avoid places prone to vibration. Try to shorten the length between the electric water heater and the water point to reduce the heat loss of the pipeline. There must be a floor drain with sufficient drainage capacity near the lower part of the installation to avoid failure of drainage. In order to facilitate future repair, maintenance and relocation, a certain space must be reserved for the installation position of the electric water heater. The bearing capacity of the mounting surface shall not be less than 4 times of the total mass of the electric water heater filled with water, otherwise the user needs to install a support bracket under the electric water heater to ensure safety.

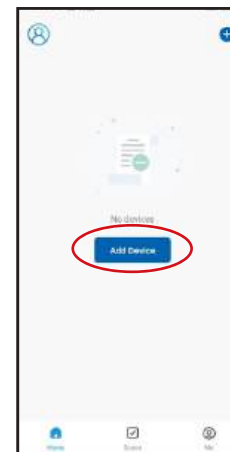
APP operation instructions

1. Download the "Tuya" APP from the App Store on your mobile phone.
2. Make sure the mobile phone is connected to the wifi at home. When the electric water heater is on, press and hold the "Wi-Fi" Power button for 3 seconds.
3. Register and log in.



Unregistered users click "Sign up", and then enter the interface to fill in the corresponding user information :If it is a registered user , just click " Log in".

4. Add Device



Step 1 : Click "Add Device"



Step 2 : Select "Water Heater (Wi-Fi)" in "Large Home Appliances"

Downloading and installing the app



For Android

Method: Open Google "Play Store" of your smart phone, search "Tuya", download and install the APP.



For iOS

Method : Open Apple "APP Store" of your smartphone and search "Tuya", download and install the APP.

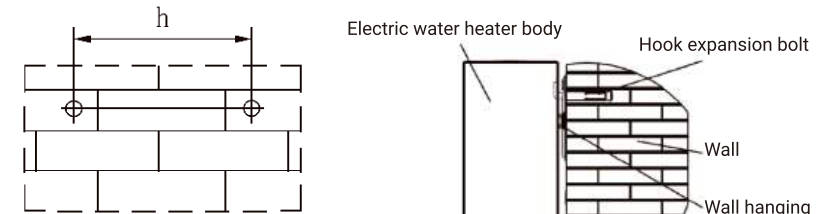


⚠ Note

Enable Storage/Location/Camera permissions for the App when the install. Otherwise, some problems may appear when operating.

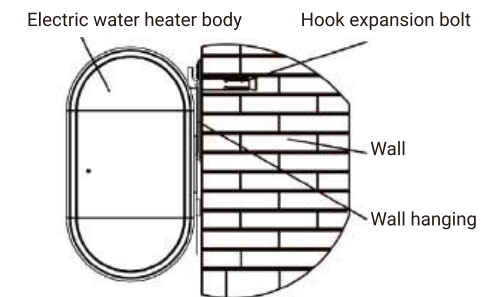
2. Installation Operation

- (1) The attached accessories shall be used for the installation of electric water heater, and professional installation personnel shall not replace, omit or reform at will.
- (2) During installation, attention shall be paid not to damage the safety guarantee structure of the building.
- (3) The pipes and fittings installed and connected to users must comply with relevant national standards and be approved or designated by the water heater manufacturer. If a one-way valve is added to the pipeline, an expansion water tank meeting the standard volume and pressure must be installed behind the one-way valve.



Rated Capacity (L)		30	50	73	92
Hole spacing h (mm)	Vertical	199			
	Horizontal	207	422	560	720

Note: Floor mounted installation is not allowed.



- (4) Determine the installation position of the electric water heater, avoid the reinforcement and embedded pipeline in the wall, and drill two holes with medium 16mm and deep 90mm on the solid wall with an impact drill, and the two holes shall be on the same horizontal line, and the hole spacing is shown in the table below. More than 500mm space shall be reserved on the right side of the electric water heater for maintenance.

- (5) Insert the hook expansion bolt into the hole, tighten it and make the hook upward.
- (6) Lift the electric water heater, align the two square holes of the two wall hangers with the hooks of the two hook expansion bolts, and check whether the hook expansion bolts are loose to ensure that the electric water heater is firmly installed.
- (7) Connect the safety valve, drainage hose, water mixing valve, tap water inlet pipe and shower with the electric water heater (install a sealing ring at the joint).

Notes:

- ① The safety valve (factory original identification 0.8MPa) in the accessories shall be installed on the water inlet joint (as shown in Fig 3), and the raw material belt shall be wound to ensure sealing.

The arrow direction shall be consistent with the water inlet flow direction of the electric water heater (as shown in Fig 3). The net sealing gasket shall be installed at the cold water inlet of the safety valve, and the drainage hose at the pressure relief outlet of the safety valve shall be installed to maintain a continuous downward inclination. It shall be installed in a frost free environment, and then extended to the ground leakage, kept connected with the atmosphere, and properly fixed to prevent scalding by discharging hot water or steam. The safety valve can prevent the tank pressure from exceeding the rated pressure by 0.1MPa. If the pressure in the tank is too high, the safety valve will automatically open and drain water from its pressure relief port to release the pressure.

- ② The water pipe connected to the electric water heater must be able to withstand pressure of 0.8MPa and temperature of more than 100°C, and the joint shall be wrapped with sealing tape to ensure sealing.

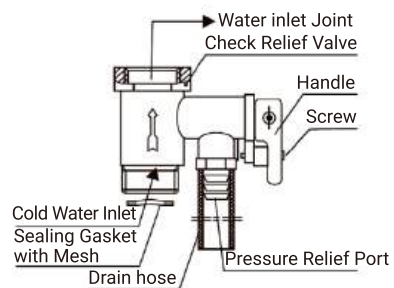


Figure 3

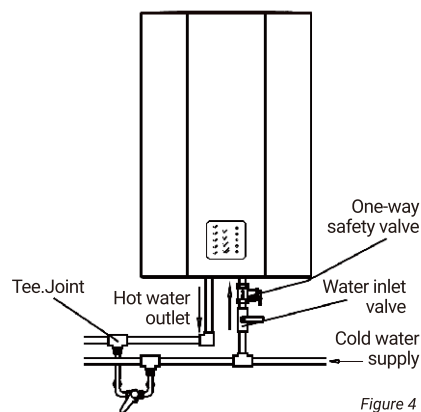


Figure 4

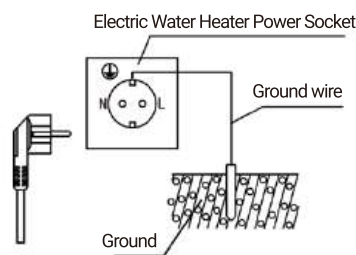


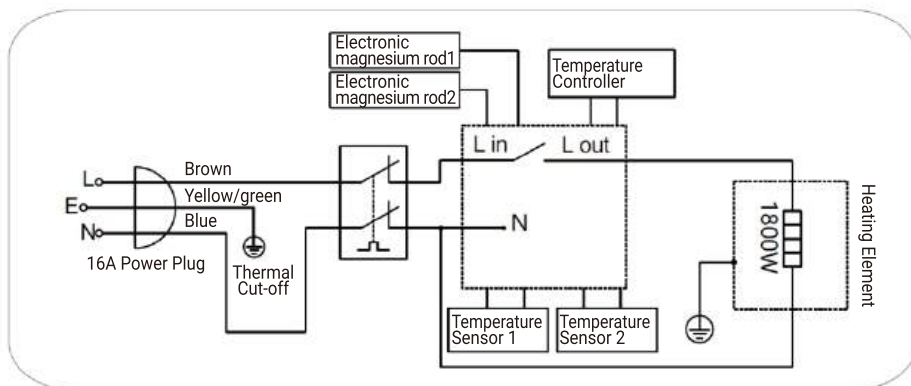
Figure 5

Faults and Troubleshooting

Faults	Analysis of Causes	Troubleshooting
No water from hot water outlet	The water supply system is cut off or the water pressure is too low	Check the water supply system
	The inlet valve is not opened or the water mixing valve fails	Open the water inlet valve or replace the water mixing valve or replace the water mixing valve
The outlet water is cold water (no display on the operation panel)	Power failure or power switch in off position	Check the power supply line
	Internal circuit failure	Contact the maintenance department
The outlet water is cold water (displayed on the operation panel)	The heating temperature is set too low	Raise the heating temperature
	Heating time is too short	Continue heating
	Water mixing valve failure	Replace the water mixing valve
	Internal circuit failure	Contact the maintenance department
"⏻"+40°C The indicator light flashes	Heating water temperature out of control exceeds 90°C	Contact the maintenance department
"⏻"+50°C The indicator light flashes	Is the sensor 1 damaged	Contact the maintenance department
"⏻" 60°C The indicator light flashes	The water heater is not filled with water and is directly powered on, resulting in dry burning	Cut off the power supply and fill the water heater with water before energizing
"⏻"+70°C The indicator light flashes	Is the sensor 2 damaged	Contact the maintenance department

Note: if your water heater is abnormal and cannot be used normally, please handle it according to "fault and its handling method". If you have any electrical problems, please contact the special maintenance department designated by the company for professional maintenance.

Electrical Schematic Diagram



Maintenance

In order to prolong the service life and ensure that the water heater always works with high efficiency, professionals can maintain the electric water heater according to the following methods:

1. Clean the heating elements regularly (according to the local water quality) and remove the scale bonded to the heating element; In high scale areas, users can install anti scaling devices at the front end of the inlet (cooling) pipe by themselves.
2. Check the magnesium rod installed on the heating element regularly (according to the local water quality). If it has been exhausted, please replace it in time.

Packing List

After opening the packing box, please check the accessories and data attached to the machine according to the following table. If there is any damage or shortage, please contact the dealer or the after-sales service department of the company directly in time to serve you.

Please keep the operation manual properly for your future use and maintenance. The packing list is as follows.

Name	Quantity	Name	Quantity
Electric Water Heater	1 Unit	Operation Manual	1 Piece
Safety Valve	1 Piece	Drain Hose	1 Piece
Hook Expansion Bolt	2 Pieces	Sealing Gasket with Mesh	1 Piece

- ③ Where water is used, it shall be able to drain smoothly.
- ④ Under normal use, the handle of the safety valve (Fig. 3) should be opened regularly to remove calcium carbonate deposition. The method is: pull the discharge handle upward to the horizontal position (if the handle is equipped with screws, remove the screws with a screwdriver before doing this action), and confirm whether the safety valve is blocked (whether there is water discharge). If it is blocked, please contact the maintenance department.
- (8) If users want multi-channel water supply, they can connect the water pipe according to the method shown in Fig 4.
- (9) After confirming that the rated values of electricity meters, wires, switch sockets and fuses in the power supply system meet the power consumption requirements of this product, connect a separate power socket at an appropriate position to supply power to the electric water heater (as shown in Figure 5). The installation height of power socket from the ground shall not be less than 1.8m.
- (10) After confirming that the rated values of electricity meters, wires, switches, sockets and fuses in the power supply system meet the power consumption requirements of this product, connect a separate power socket at an appropriate position to supply power to the electric water heater (as shown in Figure 5). The installation height of power socket from the ground shall not be less than 1.8m.

Notes:

- ① Do not put the socket in a place where water is easy to get into.
- ② The socket must have a reliable grounding wire.
- ③ The socket should be kept dry to prevent leakage.

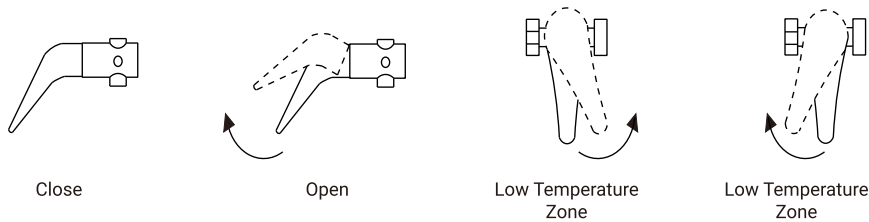
Electrical installation must be carried out by professionals.

3. Inspection and Commissioning

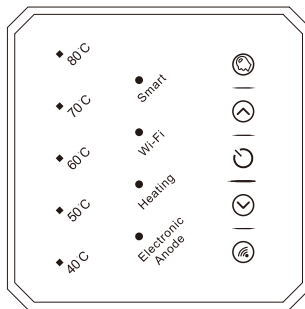
- (1) The pipeline connection and direction shall be reasonable, and there shall be no water leakage at each connection.
- (2) The electrical configuration shall be safe and correct, the electric water heater shall be reliably grounded, and the power plug and socket shall cooperate closely.
- (3) The mechanical connection shall be firm and reliable.
- (4) Check the possible leakage parts of the shell with a test pen or multi-meter to ensure that the electric water heater is safe and normal.
- (5) The electric water heater shall operate according to the use method in this manual, and all performance indexes shall be consistent with this manual.

Method of Application

- When using the water heater for the first time or after draining the tank and then using it again, the tank of the water heater must be filled with water first. The method is: open the water inlet valve, pull up the handle of the water mixing valve and turn it clockwise to the high-temperature area, that is, start injecting water into the inner tank. When the hot water outlet comes out, it indicates that it is filled with water, then turn the handle of the water mixing valve counterclockwise to the low-temperature area and push it to the closed position (as shown in Fig 6).



- Insert the power plug into the power socket to energize the water heater. At this time, the indicator light is on.
 - If the power cord is damaged, it must be replaced by the manufacturer or its maintenance department or similar professionals in order to avoid danger.
 - This electric water heater provides emergency protective measures in case of abnormal grounding system in normal use. It belongs to class I electric water heater that provides emergency protective measures in case of abnormal grounding system.
- Description of Operation



Schematic Diagram of Operation Panel

9. Electronic magnesium function

When the water heater is powered on, the electronic magnesium rod automatically connects to the tank, and the indicator light of "Electronic Anode" is on.

10. Alarm Function and Fault Self-inspection

In case of dry burning, sensor and over-temperature faults, the indicator combination flashes to indicate the fault, and other indicators do not display. At this time, all relays are disconnected and all keys are invalid; Only after the fault is removed and powered on again, the system will return to the shutdown state.

- Over temperature fault: "☹" key + 40°C indicator light flashes;
- Sensor fault: NTC1 is "☹" key + 50°C indicator light flashes, NTC2 is "☹" key + 70°C indicator light flashes
- Dry burning fault: "☹" key + 60°C indicator light flashes;

Drainage and Cleaning

- Cut off the power supply and close the water inlet valve before sewage discharge.
- This product can drain and clean the electric water heater by the following methods: ① cut off the power supply and close the water inlet valve; ② Remove the water pipe connected with the water inlet and outlet; ③ Connect the water pipe connected with the water inlet to the water outlet; ④ Remove the safety valve and open the water inlet valve for cleaning; ⑤ Remove the water pipe connected with the water outlet to drain it by itself.
- After draining and cleaning, reinstall the water outlet pipe and connecting pipe.
- To clean the outside of the water heater, gently wipe it with a damp cloth dipped in a small amount of neutral cleaning agent (do not use gasoline or other solutions), wipe it with clean water and dry it with a dry cloth to keep the electric water heater dry.
- When the water flow of the shower is not smooth, it may be caused by its internal blockage. Remove the shower to remove the blockage.

Detailed Description of Functions

1. Heating Function:

In the power-on state, the water heater directly heats. When the water heater reaches the set temperature, it stops heating and enters the insulation state. Then, if the water temperature drops below the set temperature by 8 degrees, reheat and cycle. In the heating state, it is lit according to the actual temperature, the temperature indicator is on, and the current set temperature indicator flashes.

2. Insulation Function:

When entering the insulation state, the temperature indicator lights up the corresponding indicator according to the actual temperature.

3. Automatic Sleep Function:

- (1) In the power-on state, if there is no key operation for 3 minutes, it will enter the screen saver state (except heating and anti freezing), and the brightness of the indicator light will dim.
- (2) In the heating state, reservation state and anti freezing state, it does not enter the screen saver.
- (3) In the screensaver state, press any key to wake up (if you enter the antifreeze function automatic wake-up), you will return to the display content in front of the screensaver, and you can press the key at this time.

4. Memory Function:

It has memory function (memorizing the on-off state and setting temperature). After power failure, it can automatically return to the working state before power failure.

5. Memory Clearing Function

Press and hold the "☺" and "📶" keys for 3 seconds at the same time, the indicator light will be fully on, and the buzzer will beep. After 2 seconds, it will enter the standby mode. At this time, press the "☺" key to return to the factory default value (standby mode, set temperature 70°C).

6. Antifreeze Protection Function

When the system detects that the water temperature of the inner tank is $\leq 6^{\circ}\text{C}$ under power on, it will heat automatically. When the temperature of the inner tank is $\geq 10^{\circ}\text{C}$, it will stop heating. (when heating, the indicator light is not displayed, i.e. hidden heating mode).

7. Buzzer Function:

The sound is sent out by the buzzer. In case of failure, it shall sound 10 times, and each effective key operation shall sound 1 time.

8. Safety Self-Inspection Function:

Whether in the state of power-on or shutdown, the water heater carries out real-time and all-round safety self inspection (dry burning, sensor and overtemperature fault detection).

1. "☺" Key

Connect the power supply and the indicator light will be on for 2 seconds to enter the standby state or the state before the last power failure. The "☺" indicator in standby mode is on and off slowly, and other indicators are off. Press this key once to start the machine and enter the working state, "☺" indicator light is on, and other indicators indicate the actual temperature and working state mode.

2. "Λ" and "V" Adjustment Keys

When the machine is turned on, press the "Λ" or "V" key to enter the temperature setting state, and the set temperature parameters flash. At this time, press this key once, the set temperature will increase/decrease by 5 on the basis of the last set temperature, and cycle within 40-80°C. During the setting process, the corresponding setting temperature indicator flashes. When the temperature setting parameter does not change within 5 seconds, the parameter setting result will be automatically defaulted, and the system will enter the corresponding working state.

3. "📶" WIFI Key

Press and hold the "📶" key for 3 seconds to enter the APP distribution status, the buzzer beeps, and the WiFi indicator light flashes. At this time, the distribution network can be carried out according to the APP prompt. After the distribution network is successful, the WiFi indicator will always be on.

If the network is not successfully distributed for more than 3 minutes, the WiFi indicator will go out. At this time, press and hold the "📶" key 3 seconds again to restart the distribution network.

4. "🧠" Smart Key

When the water heater is turned on, hold the "🧠" Smart key for 3 seconds to enter the "Smart" mode. The Smart key indicator light is on (if the waterheater is in the process of learning and memory, the indicator light will flash), and the "Smart" mode will analyze, process and memorize according to the user's water habit in the previous week (if the water heater is powered on for less than one week, it will learn and memorize for a full week first), and then the water heater will heat up in advance according to the memory water use time;

When the water heater is powered on, it begins to remember the user's water habits. If it's enter the Smart mode, after the statistical data of the second week takes effect, the water heater will prepare hot water in advance according to the user's water use habits in memory.

Long press the "Smart" key for 3 seconds to exit the "Smart" mode, and the "Smart" indicator light goes out.