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FEMANG

TECHNOLOGY SERVICE QUALITY

Ice bath chiller

(Dual temperature)

—— User Manual



Guangzhou Femang Technology Co., Ltd.

Dear Customer:

Thank you for purchasing products from Guangzhou Fengmang Technology Co., Ltd. Please read the instruction manual carefully before use and keep it safe. This instruction manual is not a warranty. Corrections to printing errors, errata regarding stated information, and product improvements are the responsibility of Guangzhou Fengmang Technology Co., Ltd., and will be explained at any time without prior notice. Revised content will be included in subsequent editions of the instruction manual. Copyright reserved. All rights reserved. Content subject to change without notice.



Use safely and in accordance with regulations.

To prevent personal injury and product damage, please strictly adhere to safety regulations. Improper operation due to neglecting safety regulations will result in personal injury and product damage. Please refer to the following instructions:

1 Safety Precautions

-  Please ensure that the power outlet has good contact and that the ground wire is reliably grounded!
-  Do not use outside of the technical requirements;
-  Its use in explosive gases is strictly prohibited.
-  The machine contains compressed gas, which poses an explosion hazard. Do not attempt to disassemble it yourself.
-  Relevant laws and regulations must be complied with;
-  In case of a refrigerant leak: 1. Ensure good ventilation (risk of suffocation); 2. Avoid skin contact (risk of frostbite);
-  If an abnormality occurs, stop operation immediately, investigate the cause, and take appropriate action.
-  It is prohibited to use in high temperature (ambient temperature above 45°C), humid (with condensation), extremely dusty, large amounts of water vapor, liquid mist and special gases;
-  Do not place heavy objects on the product;
-  Do not splash water or get wet in the rain;
-  Do not put your fingers or foreign objects inside the machine;
-  It contains electrically charged, moving, and high-temperature components; disassembly of the outer casing for operation is prohibited.

2 Operating Precautions

-  Please use clean water/purified water/food-grade antifreeze. Do not add salt, seawater, or chlorine-containing liquids.
-  Please ensure that the operating voltage of the chiller is stable and normal!
-  A mismatch in power frequency can damage the machine! Please use it safely according to the actual situation.
-  Please ensure that the air intake and exhaust channels of the chiller are unobstructed! The air outlet at the rear of the chiller should be at least 80cm away from any obstructions, and the air inlet at the front should be at least 20cm away from any obstructions.
-  Operating without water is strictly prohibited, as it will damage the machine.
-  Because the machine has a built-in frequent start protection, there will be a delay when the compressor restarts after it has stopped for a period of time.

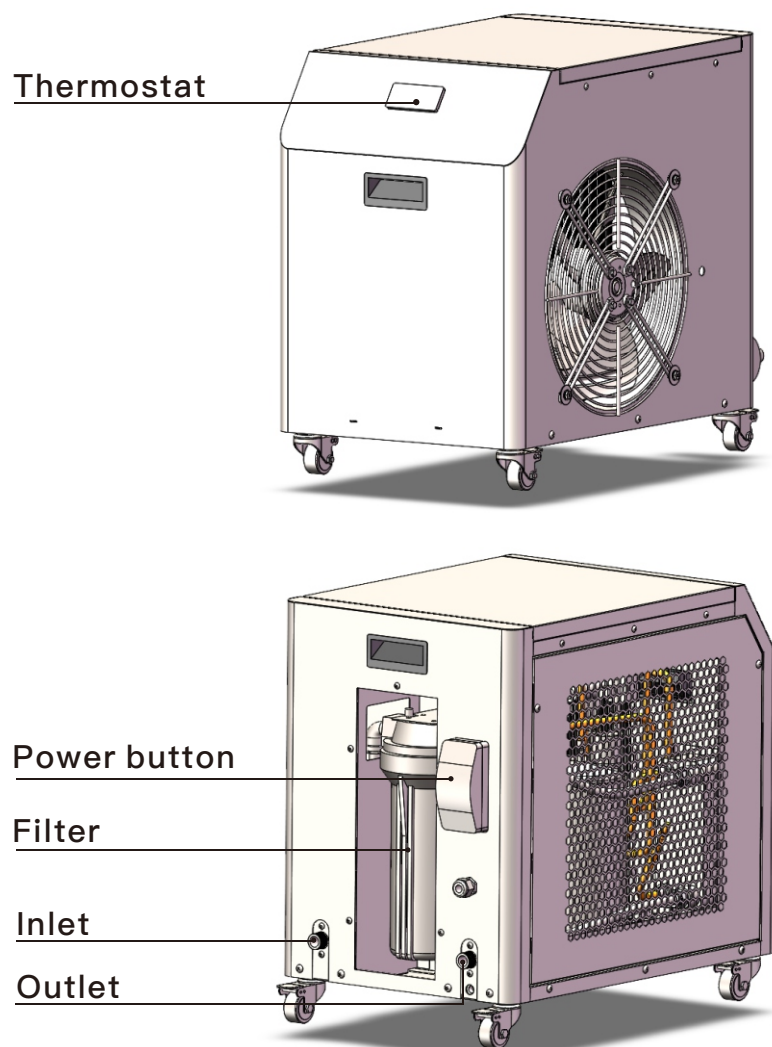
3 Operation, maintenance and upkeep matters

-  The dust filter must be removed and cleaned regularly; severe blockage can cause chiller malfunctions. Regular cleaning helps maintain the chiller's heat dissipation capacity and saves energy.
-  Please be aware of the impact of condensation! When the water temperature is lower than the ambient temperature and the ambient humidity is high, condensation will form on the circulating water pipes and the surfaces of the devices being cooled. In such cases, ensure proper insulation of the connecting pipes.

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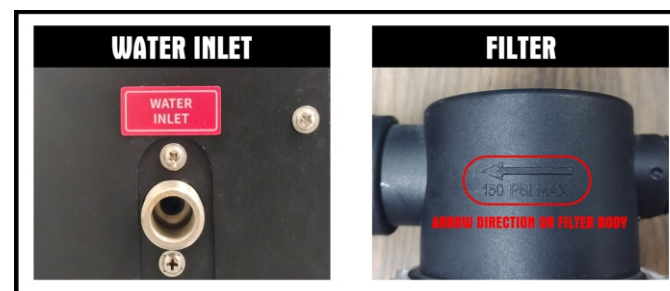
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1 Component Introduction



2 Installation Instructions

The ice bath chiller is easy to install and use. For first-time use of a new machine, please follow these steps: 1. Open the packaging and check if the machine is intact and if all accessories are included. 2. Install the filter onto the ice bath chiller's water inlet (use Teflon tape to seal the connection, paying attention to the arrow direction on the filter body).



Precautions for use:

- (1) The water level in the bathtub must be higher than the equipment's inlet, and the equipment must not be placed higher than the bathtub.
- (2) The water inlet pipe of the ice bath machine must be placed close to the ground and must not be raised, otherwise it will prevent normal water intake.

4. Connect the water inlet and outlet pipes according to the equipment specifications. Connect the power supply and turn on the power switch. (Never turn on the machine without water.)



2 Installation Instructions

(1) After turning on the power switch, the chiller's circulating pump will start working. When a new machine is started for the first time, there will be a lot of air bubbles in the pipeline, which may cause the machine to occasionally alarm for flow. After running for a few minutes, it will return to normal.

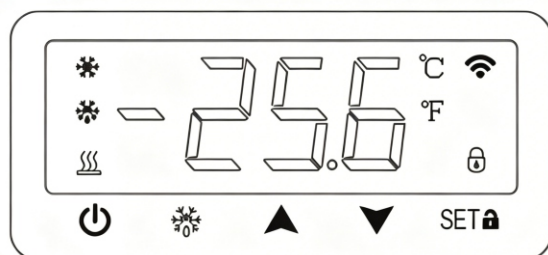
(2) After the first power-on, you must immediately check the water pipes for leaks.

(3) After turning on the power, if the water temperature is lower than the set temperature, the machine's fan and other components will not work, which is normal. The thermostat will automatically control the working status of the compressor, fan, and other components according to the set control parameters.

(4) Because the compressor and other components have a relatively long start-up process, ranging from tens of seconds to several minutes depending on different working conditions, to protect the lifespan of electrical appliances, do not frequently turn the machine on and off.

5. Adjust the thermostat parameters. The ice bath chiller uses a WIFI digital display thermostat, which supports operation via the display screen and mobile APP operation (WIFI required).

3 Operating status and parameter adjustment



- Cooling indicator light
- Defrosting indicator light
- Heating indicator light
- WiFi indicator light
- Button lock light

1. Button Lock: The button will lock after 15 seconds of inactivity. To unlock the button: Press the SET button for 2 seconds.

2. Temperature Control (Stop Temperature) Adjustment: Press the SET button to flash the control temperature display, then press ▲ or ▼ The key changes the value and remembers it.

Press the SET button to exit the adjustment mode and display the measured temperature; if no button is pressed, the measured temperature will resume display after six seconds. (Temperature adjustment range: parameter E1~E2)

3. Cooling indicator light: The cooling indicator light is on during the cooling process; the cooling indicator light is off when the temperature is constant; the cooling indicator light flashes during the delay process.

4. Heating indicator light: When the compressor is off, the heating light goes out; when the compressor is on and the four-way valve is on, the heating light illuminates and flashes during the delay.

5. Power On/Off: Press and hold the button for three seconds to turn off the cooling mode, turn off the temperature display, display "—", and stop all control outputs. Press the button again to display the measured temperature, and after a delay, start the cooling mode again.

6. Network Configuration Mode: Press and hold the SET and ▼ Ctrl keys simultaneously for three seconds. The display "SAr" will appear, allowing you to enter the automatic configuration mode for the wireless router's name and password.

7. Manual defrosting: Press and hold the button for six seconds to manually enter or exit defrosting mode (effective in heating mode).guration mode for the wireless router's name and password.

8. Parameter Setting:

a. Press and hold the SET button for six seconds to enter parameter

3 Operating status and parameter adjustment

adjustment mode, while E1 will flash.

b. Press the SET button again to change the parameter selection, displaying E2, E3, E4, E5~L1, E1 in sequence, cycling through the options.

c. Press the ▲ or ▼ key to display the parameter value, modify it, or save the data.

d. If no key is pressed within six seconds, the system returns to normal operation.

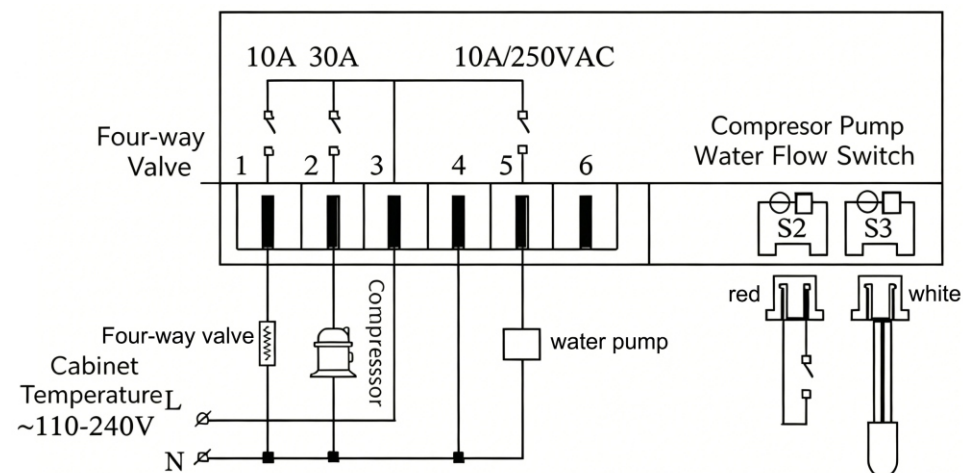
2. Temperature Control: (Press the ▼ button once upon initial power-on to cancel the delay and quickly start the compressor; one-time activation only.)

2.1 After a delay following parameter E42 (press E41 when powering on after a power outage or powering on after power off), when the cabinet temperature $\geq$ (control temperature + cooling temperature hysteresis E3), the fan is activated, and the compressor is activated after a 10-second delay; when the cabinet temperature $\leq$ control temperature, the compressor is stopped, and the fan is stopped after a 5-second delay. To prevent frequent starts, the relay output must stop for more than the delay time (parameter E42) before restarting.

3. Water Shortage Alarm: After power-on, the water shortage alarm is activated after a delay of L1 and when L0=1. The alarm is triggered when the water flow switch is disconnected, all outputs are shut down, the display shows "NFL" and the cabinet temperature, and a buzzer sounds. Press any key to silence the buzzer. The alarm is deactivated after power-off.

4. Abnormal Operating Mode: If the cabinet temperature probe is short-circuited or the high temperature exceeds the limit (greater than 120°C/248°F), the display will flash "HH"; if the cabinet temperature probe is open-circuited or the low temperature exceeds the limit (less than -45°C/-49°F), the display will flash "LL". The compressor will operate for 30 minutes and then stop for 15 minutes.

5. Wiring Diagram



4 Control and wireless connectivity

Please scan the QR code to download the Tuya Smart APP before network configuration. Alternatively, you can search for "Tuya Smart" in major mobile app stores to download it.

Network Configuration Flowchart:

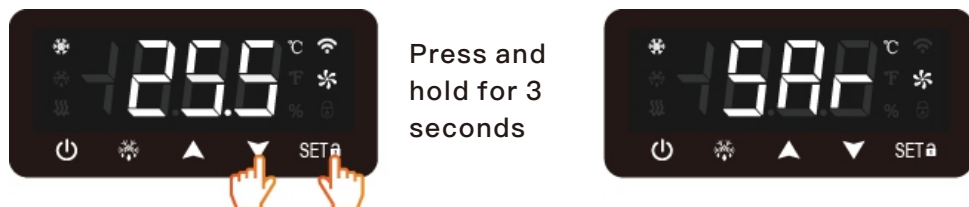
Step 1: Enter Network Configuration Mode

Note: The key combination for entering network configuration mode may vary depending on the model of the Wi-Fi thermostat. Commonly, it's SET (Settings button) + Up or Down button for 6 seconds. Displaying SAR indicates successful entry into network configuration mode. Please refer to the instruction manual for your specific model for detailed instructions. (Taking SF-126W as an example: With the device unlocked, press and hold the SET button + Down button until SAR is displayed, indicating entry into network configuration mode.)



4

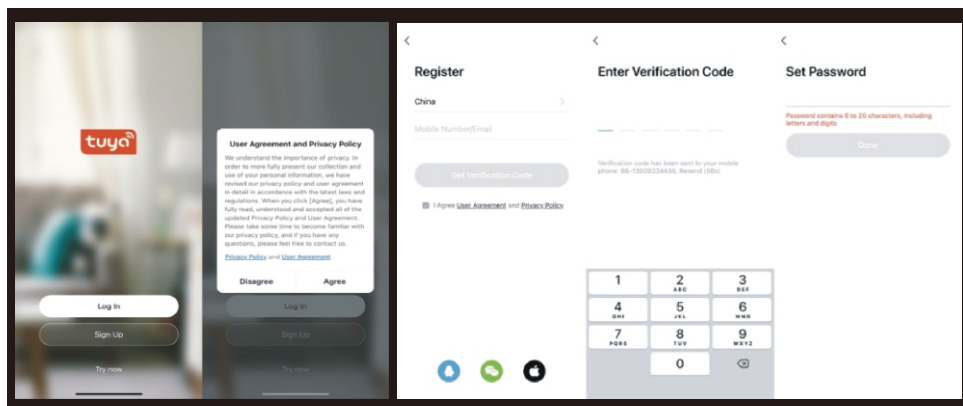
Control and wireless connectivity



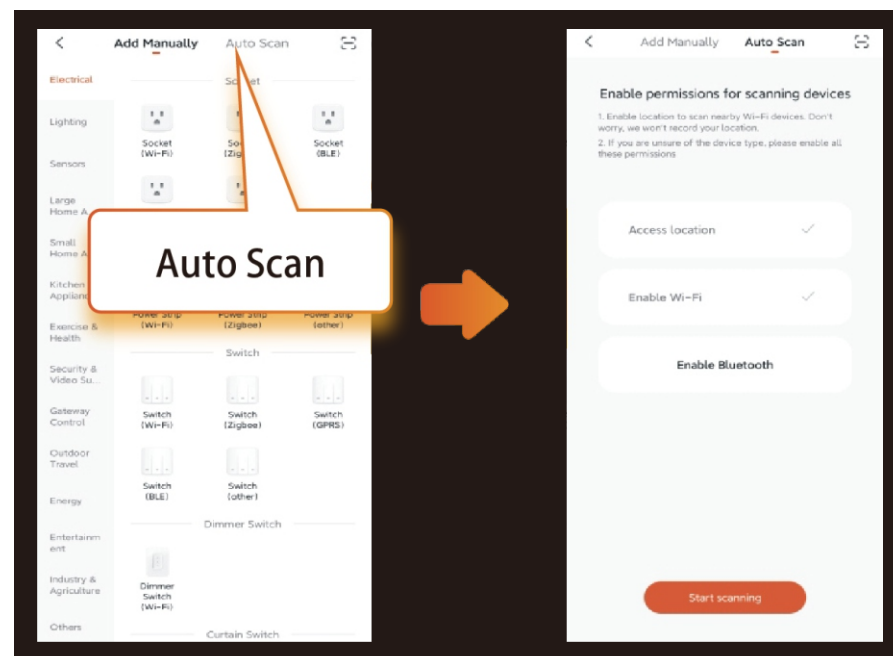
Press and hold for 3 seconds

The device displays "SAR" indicating successful entry into network distribution mode.

Step 2: Open the "Tuya Smart" APP. First-time users need to register or authorize login using their WeChat or QQ accounts.

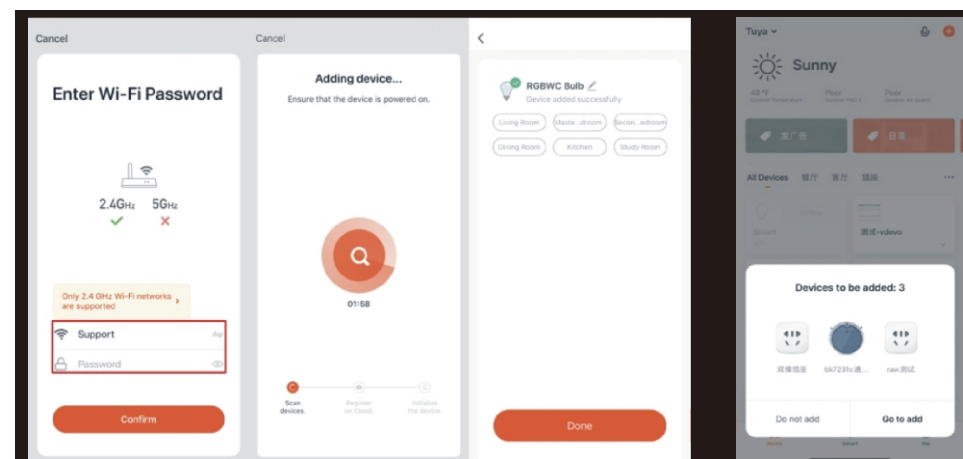


Step 3: Click "Add Device," then click "Auto Discover" in the upper right corner, turn on Bluetooth authorization, and search for devices.



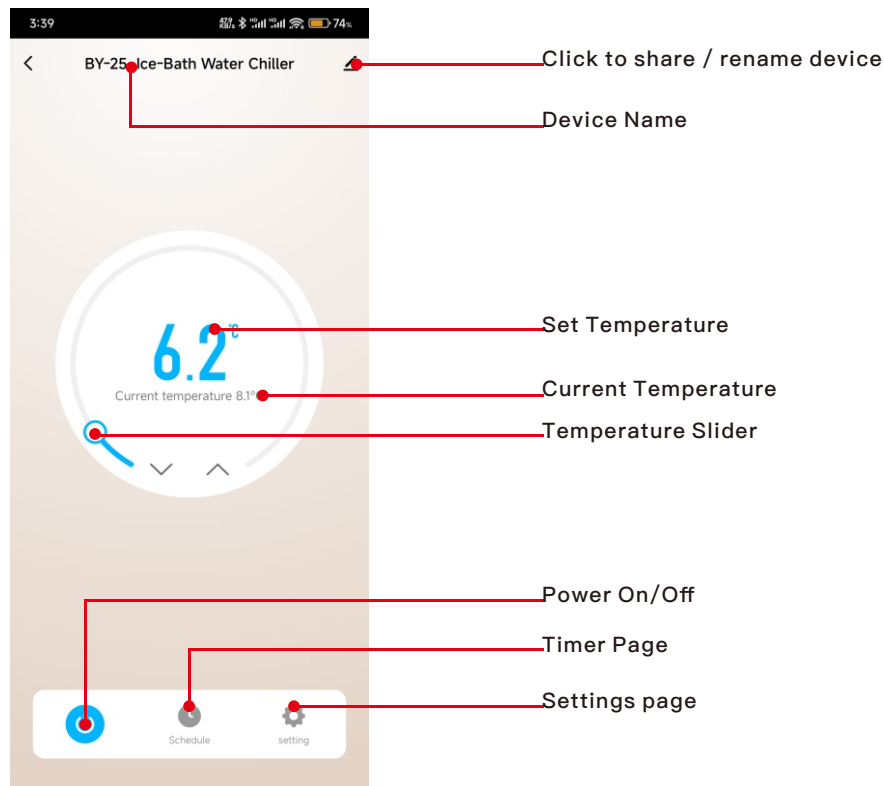
Step 4: Discover the device, click Add, enter the Wi-Fi username and password, and click Connect.

***Only supports 2.4GHz Wi-Fi networks, and the phone and device must be in the same Wi-Fi environment.**

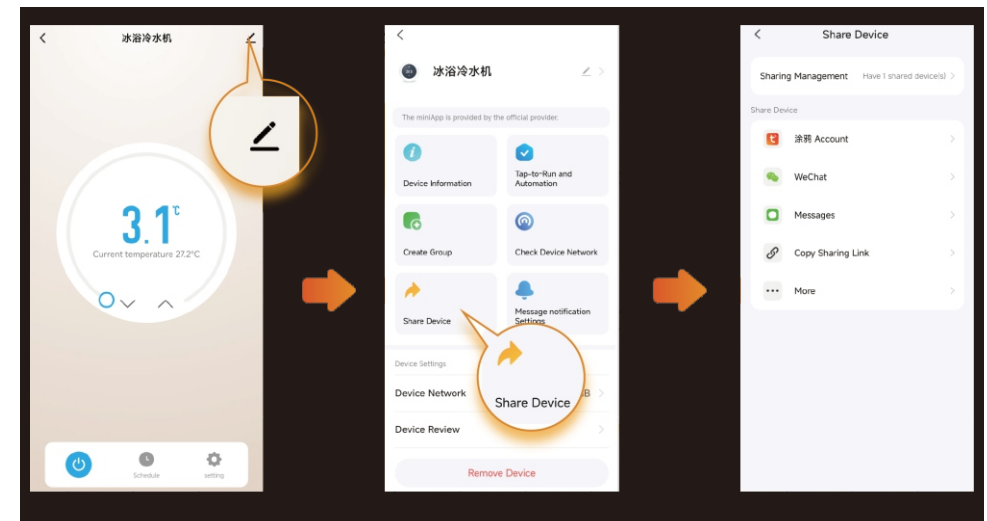


4 Control and wireless connectivity

Interface introduction:



Device Sharing: After the main account connects to a Wi-Fi device via network configuration, it can share the device with other users (sub-accounts). The main account can then remove the shared device from the network or set the sharing time.

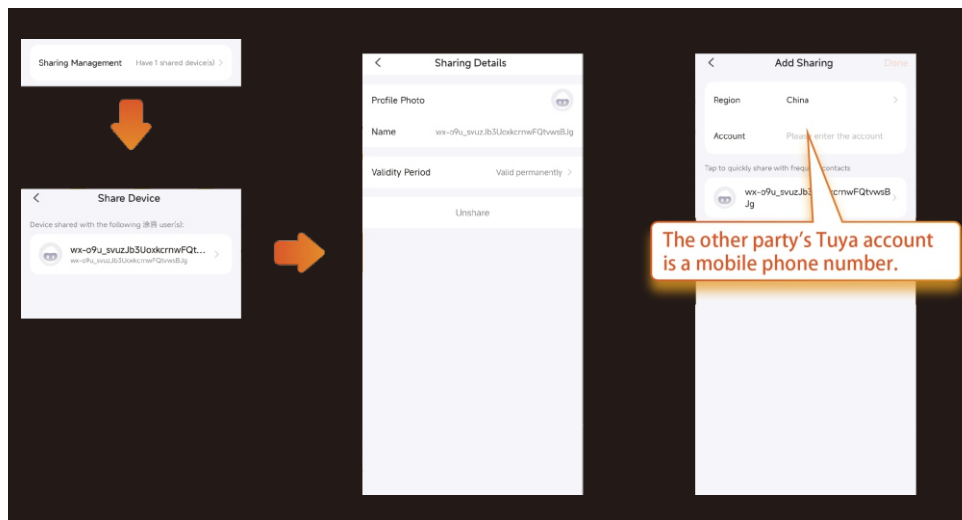


Click the "Device Information" icon in the upper right corner of the main device information interface;

After entering the device information page, click "Share Device" to be redirected to the sharing page;

You can choose the sharing method as needed and follow the prompts.

4 Control and wireless connectivity



Click "Share Management" on the "Shared Devices" page to see which devices have been shared with. Click on a device to enter the "Share Details" page.

The "Shared Details" page allows you to manage the shared devices.

Note: When sharing with other graffiti users, the recipient must have a graffiti account registered using a mobile phone number.

5 Technical parameters

model	BY-15-H	BY-25-H	BY-35-H	BY-50-H	BY-80-H
powered by	120V,60Hz			120V,60Hz	
Input power	720W	1050W	1550W	1750W	3600W
Cooling capacity	1500W	2500W	3500W	5000W	8000W
Heating capacity	2000W	3300W	4600W	6500W	9900W
Usage Environment	0~45°C				
refrigerant	R32				
temperature	Adjustable temperature from 3 to 42°C				
Circulating pump	electric pump				
Filter	Primary filter + Secondary filter				
Remote control	Local control panel or smart app				
Moving wheel	Yes				
handle	Yes				
quick connector	Yes				
Water pipe interface type	1/2 inch				
Waterproof rating	IPX4				
noise	≤60	≤62	≤62	≤65	≤70
net weight	36kg	38kg	47kg	58kg	90kg
Product Dimensions	60x39x54cm (L x W x H)	60x39x54cm (L x W x H)	65x44x60cm (L x W x H)	70x49x65cm (L x W x H)	85x59x70cm (L x W x H)
Water volume and cooling time	100L≥ 1.4H	200L≥ 1.7H	200L≥ 1.2H	400L≥ 1.7H	570L≥ 1.5H
Optional power plug	US / UK / EU / AU / ITA / IN / SA / TH				
Additional services	Accept OEM and ODM				

Note: Operating current, nominal cooling capacity, and dimensions may vary depending on different configurations and operating conditions. The above information is for reference only; please refer to the nameplate on the actual delivered machine for accurate specifications.

6 Basic troubleshooting

Fault phenomenon	Cause of the fault	processing method
Display alarm fault codes	The display shows "HH" in a flashing manner.	If the water temperature probe is short-circuited or exceeds the high temperature limit, check the water temperature, reset the control parameters, or restore factory settings.
	The "LL" indicator is flashing.	If the water temperature probe is open-circuited or the low temperature exceeds the limit, check the water temperature probe connection and control parameters.
	The screen flashes to display "NFL" and water temperature.	Water shortage alarm: Check water pipe circulation status and confirm whether the inlet and outlet are blocked.
	*Incorrect thermostat settings	Reset control parameters or restore factory settings
	*Water temperature sensor malfunction	Check and replace the water temperature sensor

6 Basic troubleshooting

Fault phenomenon	Cause of the fault	processing method
The device won't turn on (no display on the screen).	Power cord not plugged in properly, power cord not turned on, voltage mismatch	Check the power interface and ensure the power cord plug is properly connected, then restart.
No water circulation or slow water flow	Pipe dirt, clogged filters, bent water pipes, insufficient circulating water volume, and insufficient flow protection cause the water pump to stop working.	Inspect the water circulation pipeline and clean the pipeline filter screen regularly; straighten the water pipes to ensure unobstructed flow and sufficient circulating water volume.
No cooling or slow cooling	Ambient temperature too high, set temperature too high, compressor not working, excessive water flow, insufficient heat dissipation	Regularly remove and clean the dust filter, then store the container in a cool, shaded environment, away from direct sunlight; lower the set temperature; control the water volume; and ensure adequate space for heat dissipation.
The app cannot be downloaded or cannot be used after download.	Network error, phone incompatible with the app, app failed to obtain permissions.	Check and restart the network, and open the app to obtain permissions on your phone.
The app cannot find the device or cannot connect.	Network error, device not configured for network settings.	Restart the software, devices, and refrigerator, and reconfigure the network. (Refer to Section IV. Control and Wireless Connection in this document)

FCC Warning Statement

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located for operating in conjunction with any other antenna or transmitter.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.