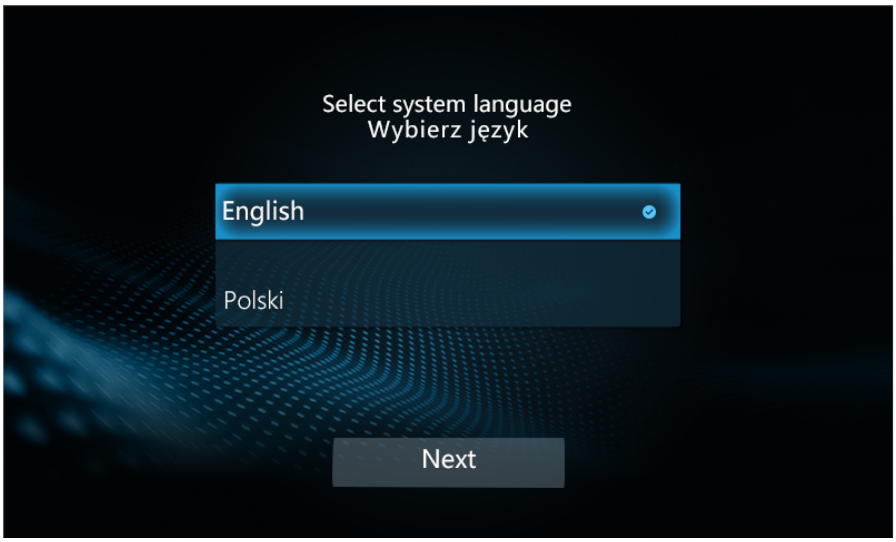
1. Wire Controller LCD Display

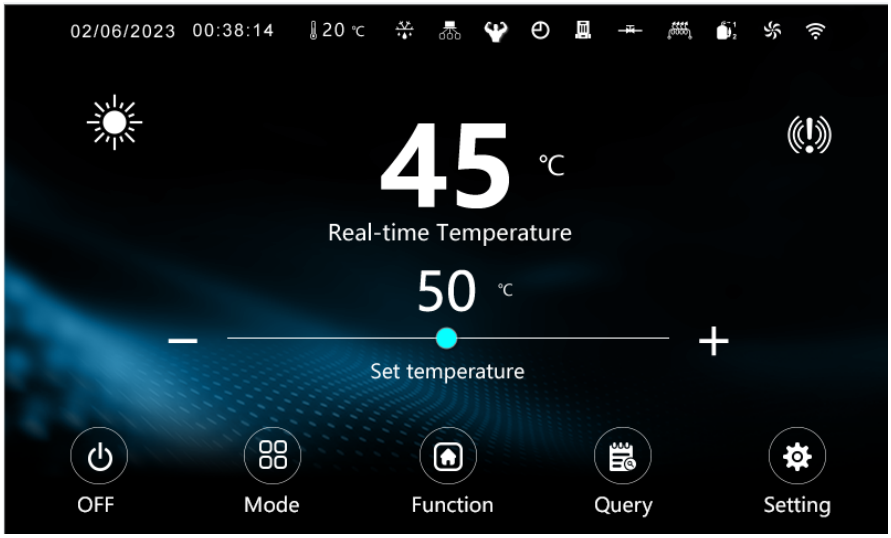
After connection to the electricity, the below image will be displayed in the wire controller. Select Polski and touch "Next" to enter system. If not touching "Next" for more than 2 minutes, the default selected language will be applied to enter system and screen will turn off automatically.



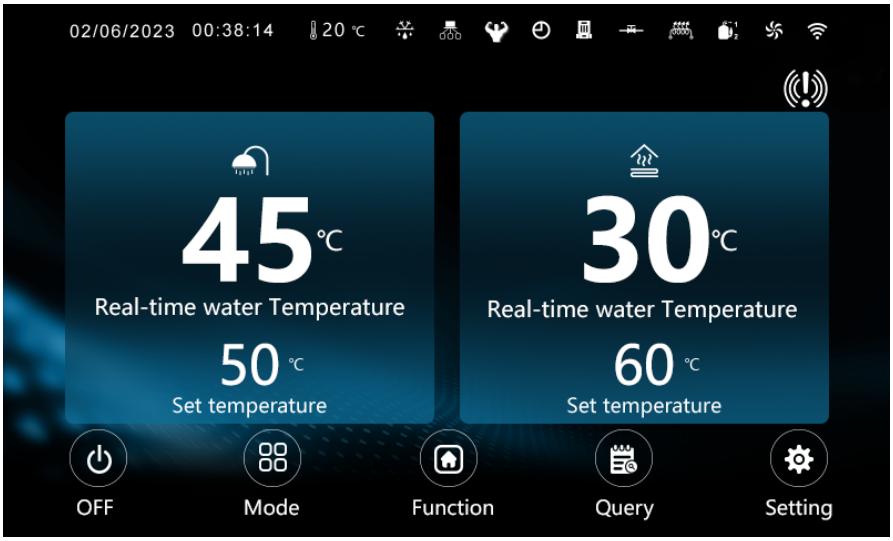
After entering the system, the below image will be displayed in the wire controller. After communication of 3 seconds, it will display the normal page. Touching will be accompanied by the sound, and the screen will be turned off automatically if there is no touch operation for 2 minutes. The screen can be turned on by touching.

If the communication fails, the below image will remain.

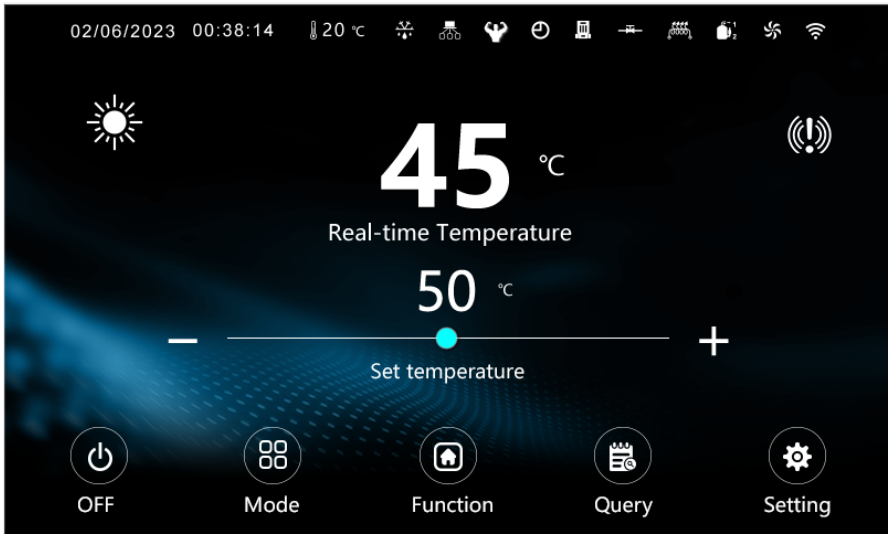
1.1 Single Mode Interface

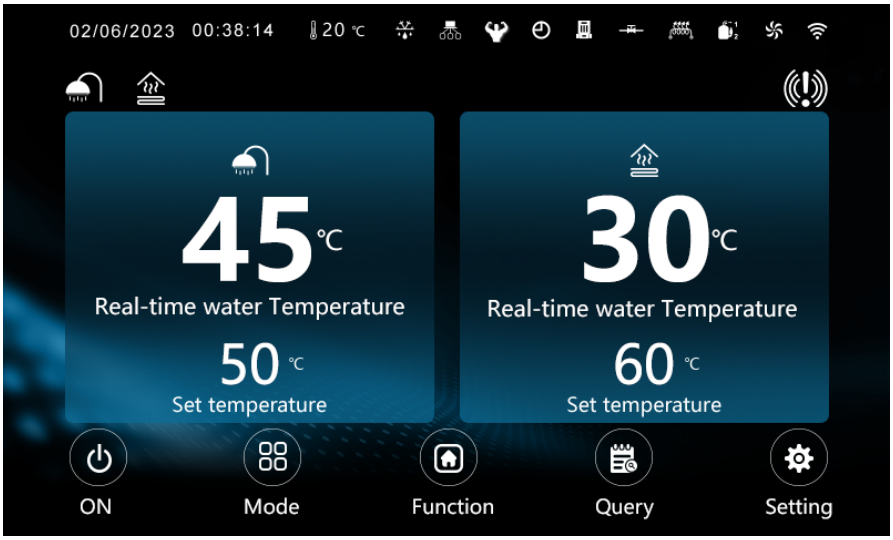


1.2 Combination Mode Interface



1.3 Icon Description





1. At the top of the main interface, it is displayed from left to right: day-month-year, current time, current ambient temperature, defrost, cascade, mute/power mode, timer, water pump, return valve, electric heating, compressor, fan motor, and WIFI.

2.Below the day-month-year icon, the current operating mode is displayed.

3. Below the WIFI icon, a fault prompt is displayed.

4. Specific instructions:

	Underfloor Heating
	Hot Water
	Heating
	Cooling
	Hot Water + Heating
	Hot Water + Floor Heating
	Hot Water + Cooling

Fault Display:when there is a unit fault, "" blinks. Click this icon to enter the real-time fault/ fault record view;

Defrost Display:When the unit enters defrosting, "" will always display; When the refrigerant recovery is running, "" will blinks;

Cascade Display:When the unit network is running, ""will always display;

Mute Mode Display:When the unit enters silent mode, ""will always display;

Power Mode Display:When the unit enters power mode, ""will always display;

Timer Display:When enabling timer function, ""will always display;

Water Pump Display:When water pump is running，“ ”will always display;

Return Water Display:When return valve is running，“ ”will always display；when return valve is not running but set return water timer, “ ”will blink;

Electric Heating Display:When electric heating is running，“ ”will always display; when electric heating is not running but fast heat is enabled, “ ”will blinks at the frequency of 1Hz. When electric heating is not running but germicidal is enabled, “ ”will blinks at the frequency of 0.5Hz.

Compressor Display:When compressor is running，“ ”will always display；

Fan Motor Display:When fan motor is running，“ ”will always display；

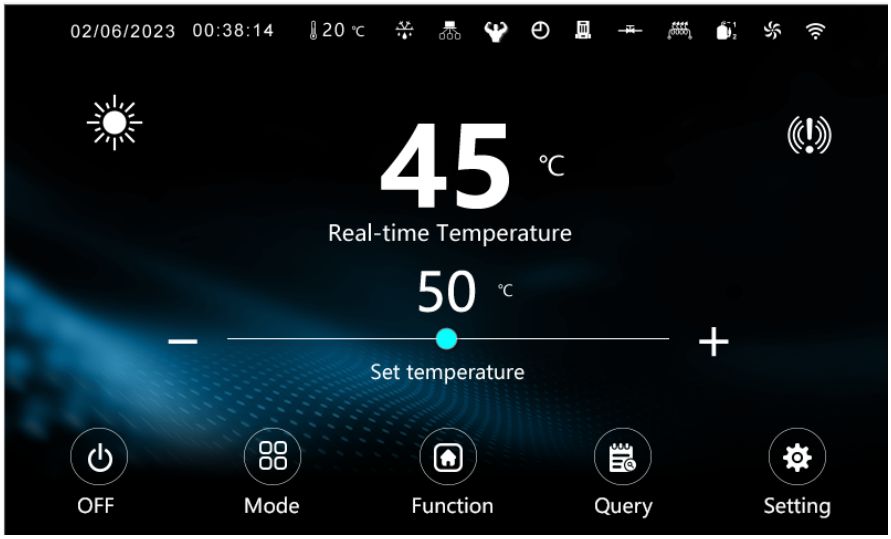
WIFI Display:When unit is successfully connected to WIFi，“ ”will always display；

2、Wire Controller Operation

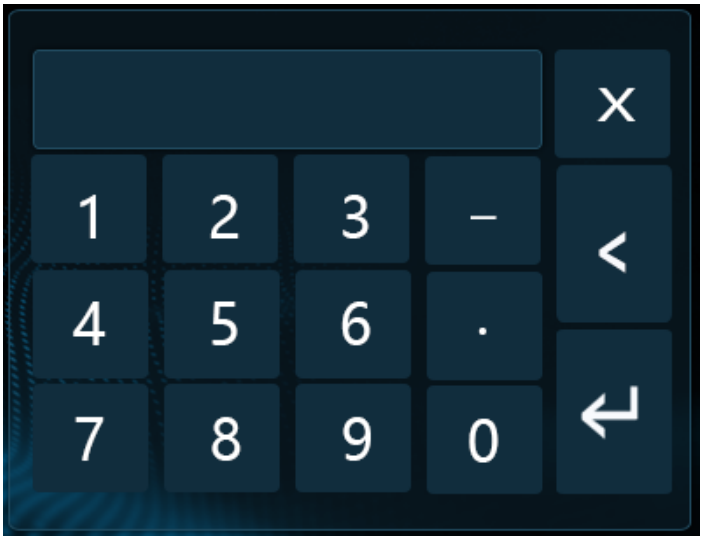
2.1 Temperature setting

1. Single Mode

1. Click "+" and "-" on the main interface to adjust the set temperature of the current mode;
2. Drag the slide bar to set the setting temperature of the current mode;

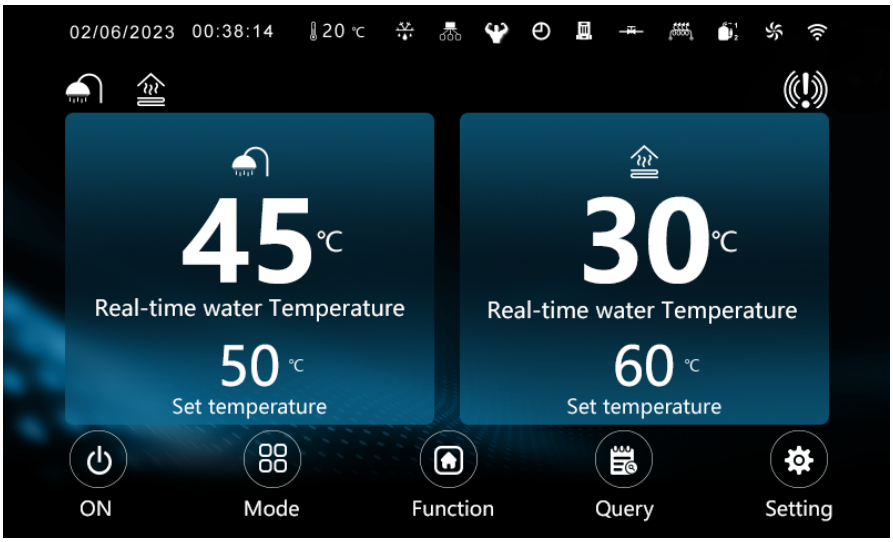


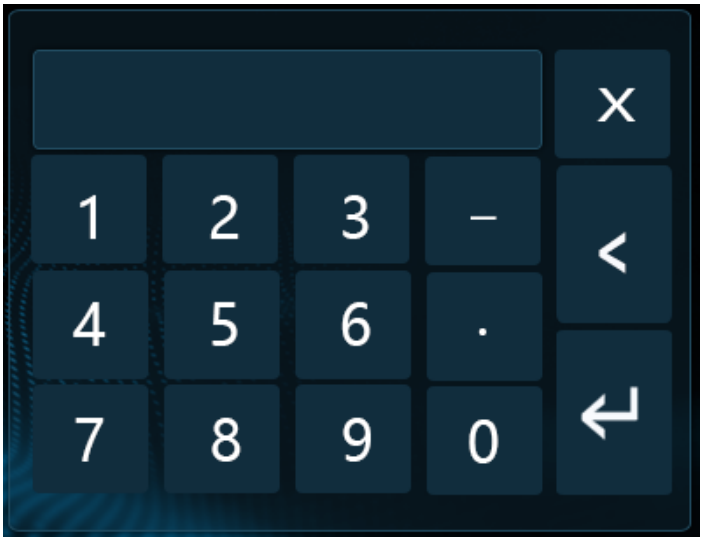
3. Click the set temperature value, enter the set temperature on the pop-up keyboard, press "Enter" to confirm, and the set temperature of the current mode can be modified.



2.1.2 Combination Mode

Click the set temperature value, enter the set temperature on the pop-up keyboard, press "Enter" to confirm, and the set temperature of the current mode can be modified.





2.2 Power button: When the screen is on， touch“  ”to power on or power off the unit；

Power on display: 

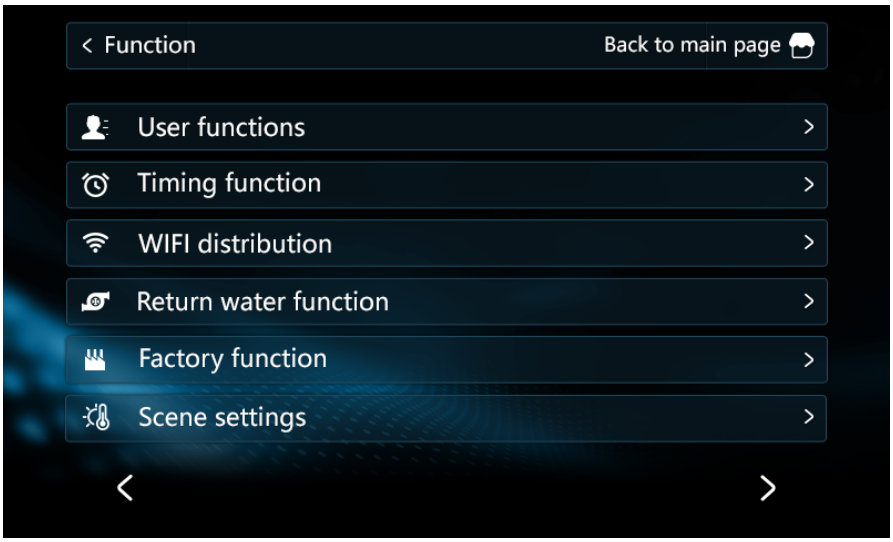
Power off display: 

2. Mode button:

When the screen is on, touch“  ”to enter the unit mode selection. Then touch corresponding mode to switch mode. Press the upper left or upper right corner to return to the home page.

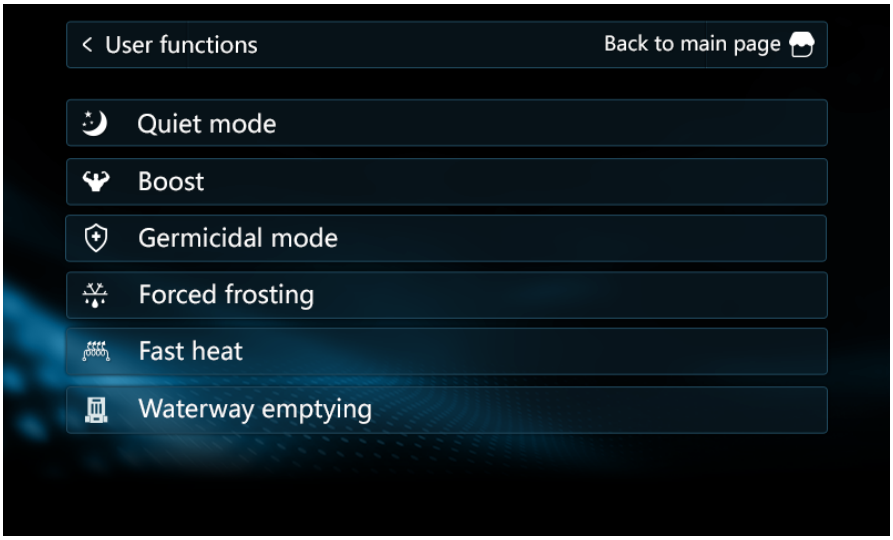
2.4 Function button:

When the screen is on, touch“  ”to enter the function selection page. Under this page, press "<" ">" to switch pages.



2.4.1 User Function operation

In function selection page, touch “User functions” to enter user function operation.



From top to bottom, they are quiet mode, boost mode, germicidal mode, forced frosting, fast heat, and waterway emptying air; click the corresponding button to activate/deactivate the corresponding function.

1.Quiet mode:"Quiet"can be touched anytime to activate or deactivate silent mode. In quiet mode the compressor /fan motor operates at low frequency and the capacity of the unit is reduced.

2.Boost mode:"Boost" can be touched anytime to activate or deactivate boost mode. In the boost mode, the compressor or fan motor operates at high frequency, and the capacity of the unit is increased.

3.Germicidal:When the current mode is not in the cooling mode, and when the hot water mode is enabled, touch "Germicidal mode" to activate or deactivate germicidal.

4.Forced defrosting: When the current mode is not in the cooling mode， touch"Forced frosting"to activate or deactivate forced defrosting； When the defrost is activated, the machine determines whether to enter defrost according to the current working conditions.

5.Fast heat: When the current mode is not in the cooling mode, touch"Fast heat"to activate or deactivate fast heat. This function is automatically turned off when heated to the set temperature.

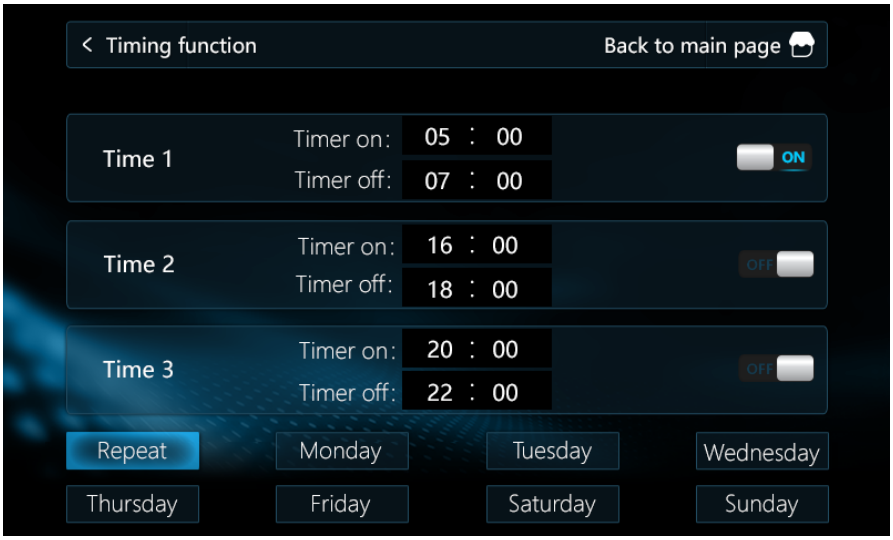
6.Waterway emptying air: This function can be turned on when the unit is power off, touch "Waterway emptying"to activate waterway emptying air. In this mode, the water pump will turn on automatically. When the unit is power on, this mode will exit automatically.

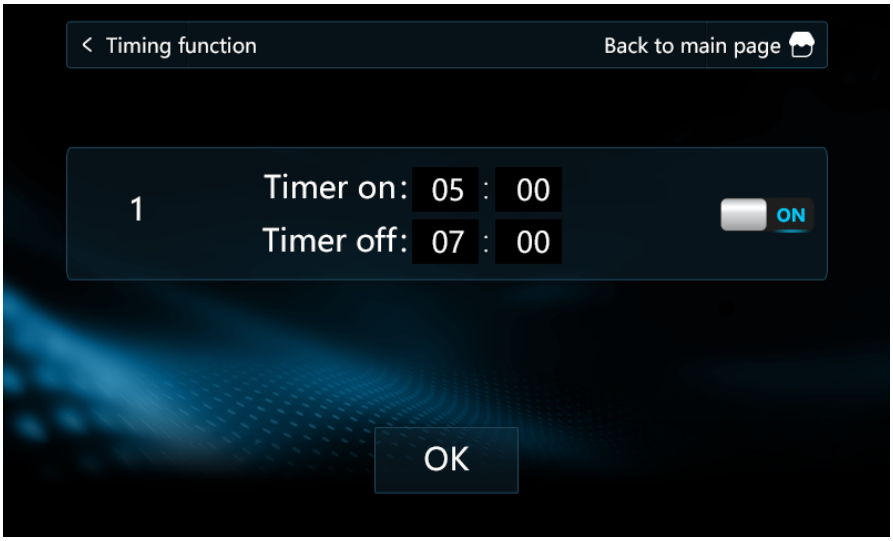
2.4.2 Set the timer control of power on and off

In the function selection page, touch "Timing function" to enter the page of timer control of power on and power off.

1. Touch "Repeat" to set timer for everyday, and the unit will be running in the set time-frame everyday.

2. Select any button of from Monday to Sunday to enable weekly timer, for example every Monday, every Tuesday, every Wednesday, or etc. If the time-frame of any day is not set, then timer will not start. Click the time period to enter the time setting of the time period, enter the time through the keyboard, click "Enter", and then click the button "ON/OFF" to start/close the time period, press "OK" to save after the setting is completed.





2.4.3 WIFI Distribution

In the function selection page, touch “WIFI distribution” to enter WIFI operation page.

Touch “ON/OFF” in“Intelligent WIFI Distribution Network” to activate/deactivate the intelligent network distribution.

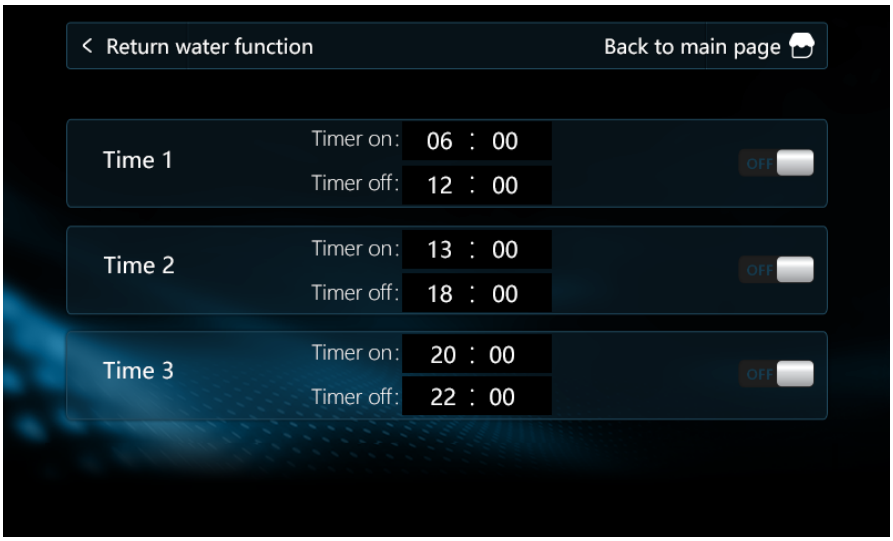
Touch “ON/OFF” in“AP Distribution Network”to activate/deactivate the AP Distribution Network.

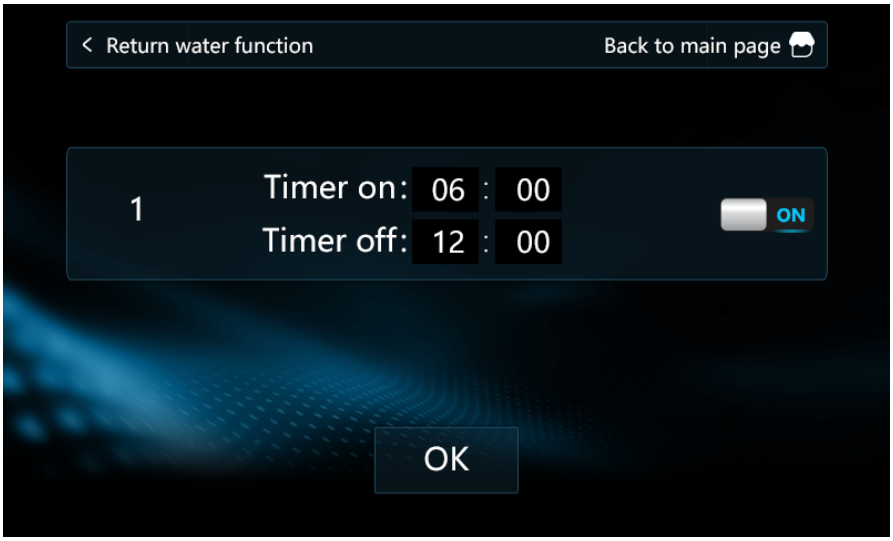
2.4.4 Timed return water temperature

In the function selection page, touch “Return water function” to enter timed return water query page.

Touch the time area can edit the time, and using the pop-up keyboard to input time, and touch “Enter”, and touch “ON/OFF” to enable the timer, and finally touch “OK” to save.

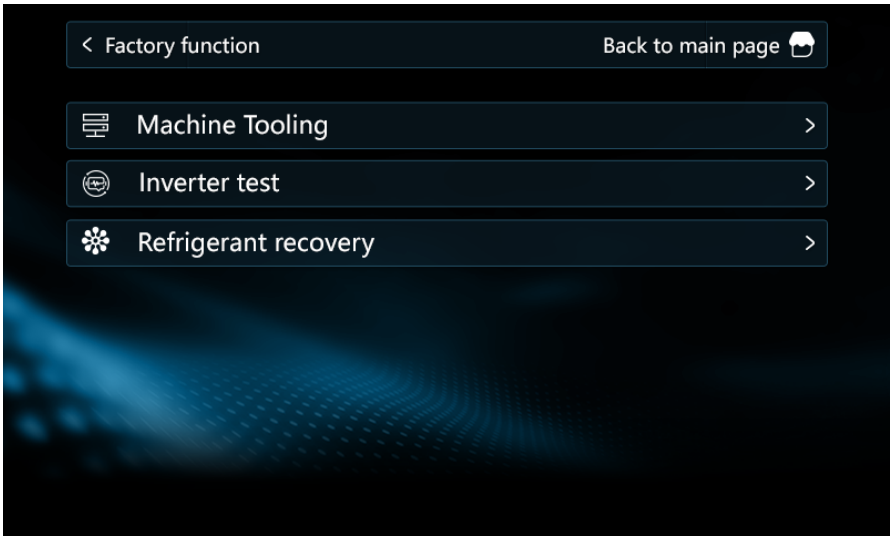
If the timed return water function is set, the return water pump can only be turned on within the set time period; if the timed return water function is not set, the return water pump can be turned on at any time.





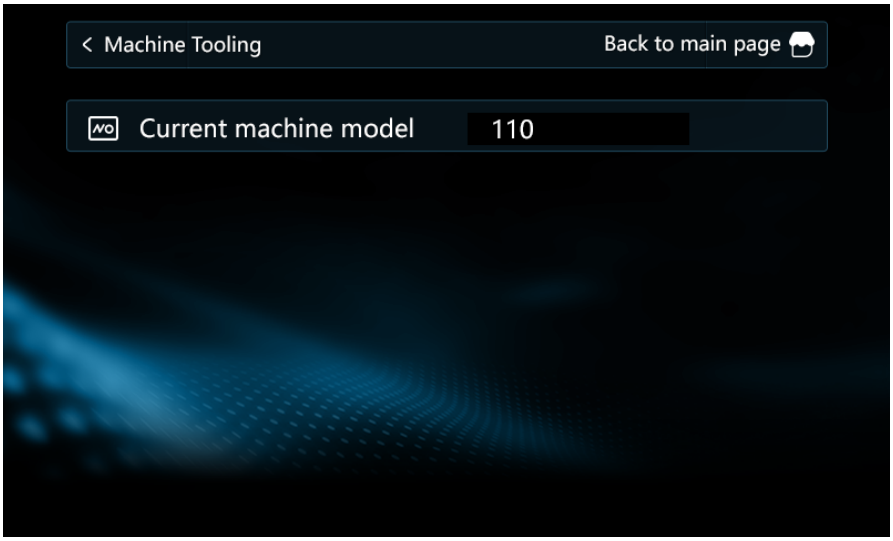
2.4.5 Factory function

In the function selection page, touch “Factory funtion” and input “1122” in the pop-up keyboard to enter the factory function setting page.



1.Program version setting:

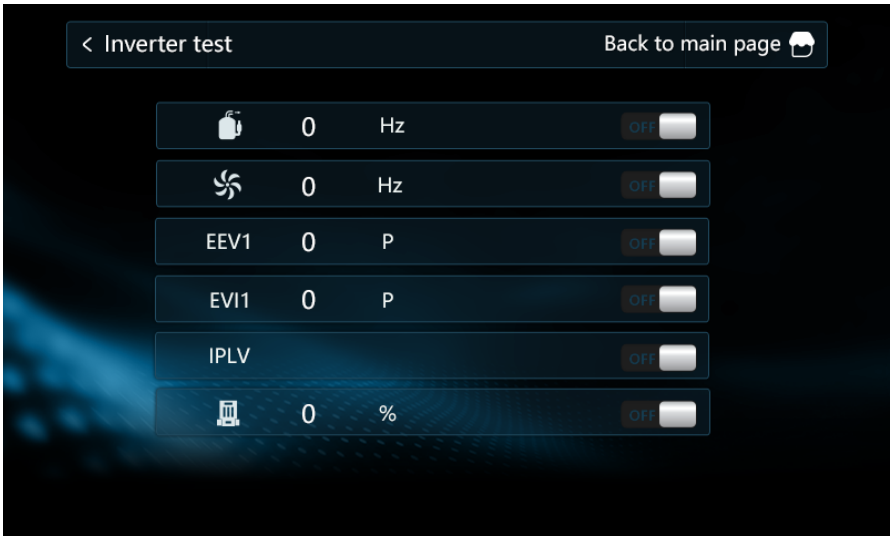
In factory function setting page, touch “Machine Tooling”to enter program version setting page. Touch number can enter the setting, and use the pop-up keyboard to enter program version setting. Finally, touch “Enter” to finish the setting.



2.Testing Mode:

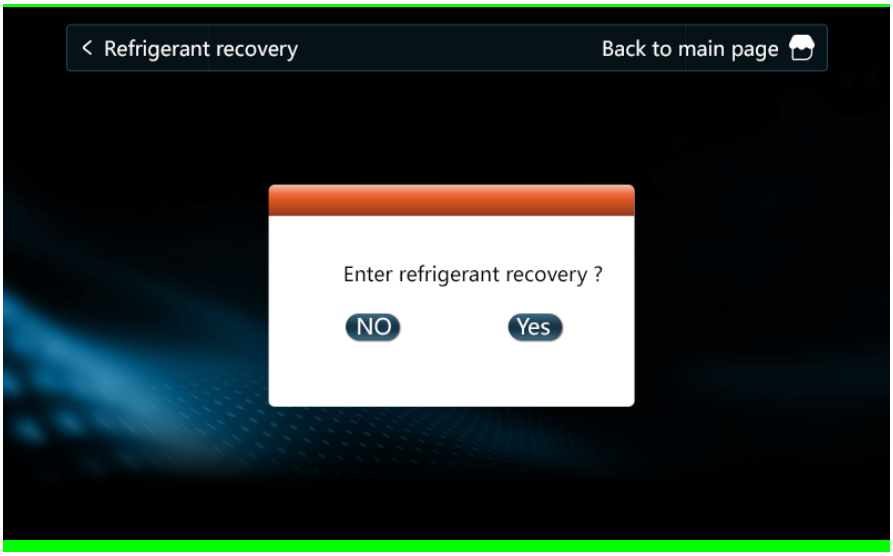
In factory function setting page, touch “ Inverter test” to enter factory setting page. This page can allow users to manually control the working status of compressor, fan motor, EEV1, EVI1, and water pump, and even Enter/Exit IPLV testing mode. This function is generally used in laboratory tests.

Click the number and button "ON/OFF" to manually control the corresponding compressor frequency, fan frequency, EEV1 opening, EVI1 opening, enter/exit IPLV test, and water pump speed. Click the number, enter the corresponding number through the keyboard, and click "Enter" to complete the setting of the target frequency, opening and speed.



3. Refrigerant recovery function:

In factory function setting page, touch “Refrigerant recovery” to enter refrigerant recovery page. Touch “No/Yes”to confirm/cancel refrigerant recovery. After 20 minutes of refrigerant recovery running, the unit will automatically exit refrigerant recovery.

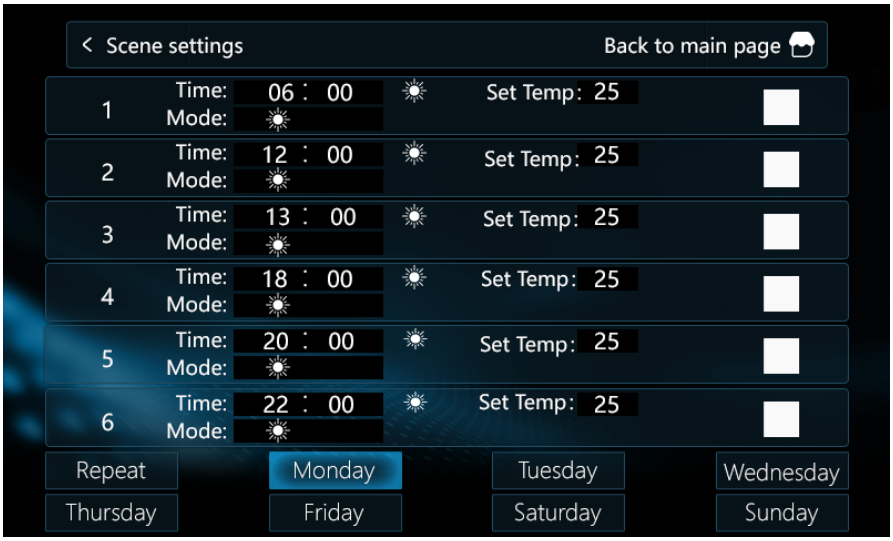


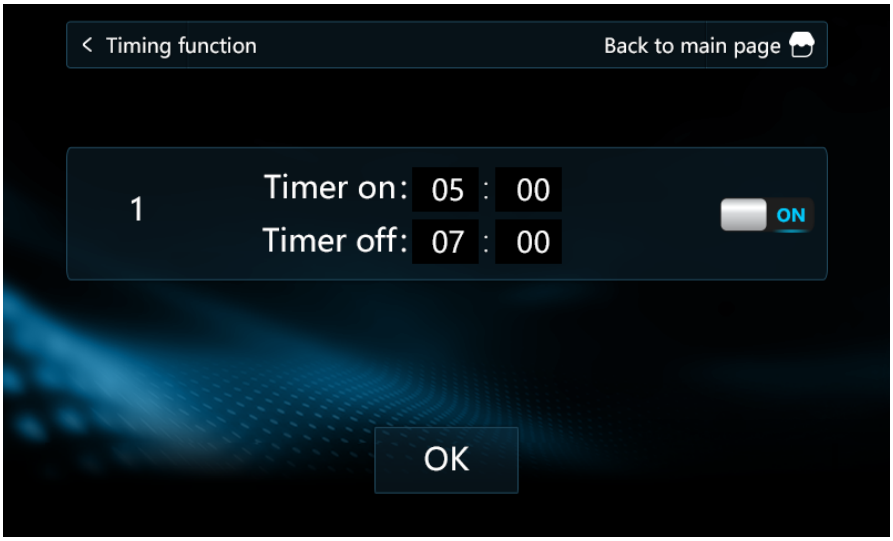
2.4.6 Scene setting

In factory function setting page, touch “Scene settings”to enter scene setting page.

1. Touch “Repeat”to set everyday running. Unit will run according to the set time and set mode.
2. Select any button of from Monday to Sunday to enable weekly timer, for example every Monday, every Tuesday, every Wednesday, or etc. If the time-frame of any day is not set, then timer will not start.
3. 6 scenes can be set by each day. Touch “ON” to activate/deactivate the scene setting.
4. Touch the scene which needs modification, touch “Tryb” to switch operation mode. Touch time can edit the timeframe. By input the number in pop-up keyboard to edit the time frame and touch “ON”to activate/deactivate the setting, and then touch “OK” to save.
5. Scene operation: When the time enters the set time, the operation mode and set temperature will automatically switch to the value set by the scene, but the state of power

on and off will not be changed.



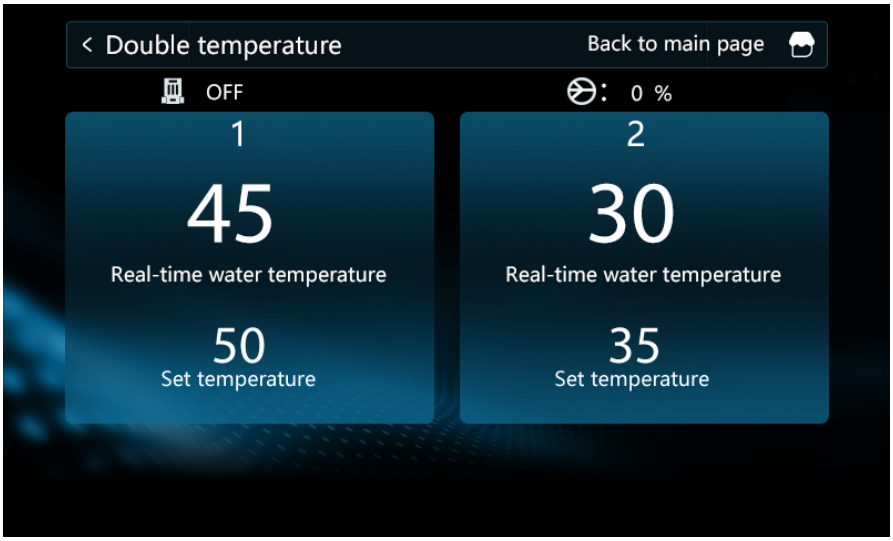


7. Dual temperature zone function

In factory function setting page, touch ">" to switch between pages. If "Double temperature zone"is with dark color, it means the dual temperature zone function is not activated. It is default as disabled.

Touch on the upper left corner or upper right corner to return to the home page, and touch "  "to enter setting page, and touch "Factory Parameters"and touch "Enter" to enter parameters setting page. Touch "<""> "to check the parameter of P257, and touch the value on the right hand side to enter the page of modifying parameters. Touch the number on the right of "set value" to modify. Input "0" in the pop-up keyboard, and touch "Enter" and touch "OK" to save parameters.

Click on the upper right corner to return to the home page, or touch again "  " to enter function selection page. Touch ">" to switch to the dual temperature function page. Now "Double temperature zone"will light, touch it can view the temperature od the dual zone.

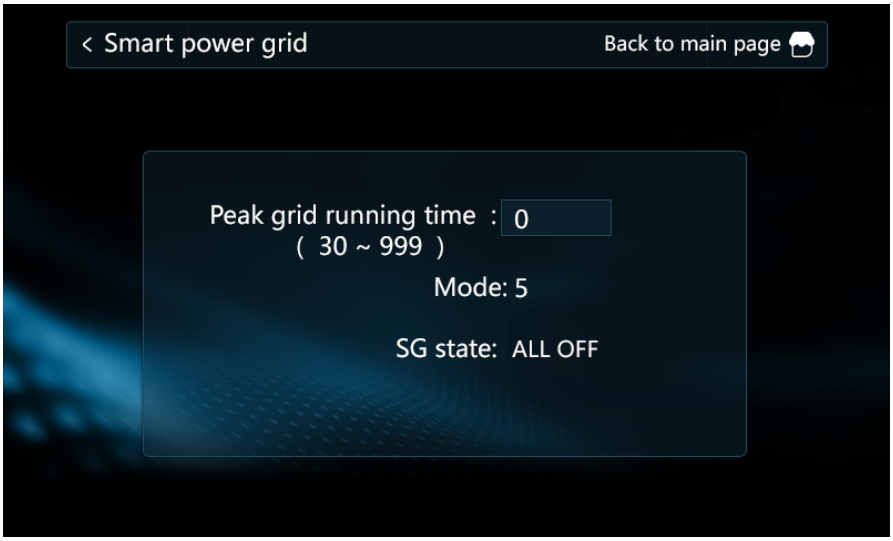


2.4.8 SG-Ready

In the function selection page, touch ">" to switch to the next page. If “Smart power grid”is dark, it means that SG-Ready is not enabled, and it is disabled by factory default.

Click on the upper left corner or upper right corner to return to the home page, touch “  ”to enter the settings page. Touch “Factory Parameters”, and touch “Enter” in the pop-up keyboard to enter parameters setting page. Press "<" ">" to query the parameter P255, click the parameter value on the right to enter the page of modifying the parameter value. Touch the value on the right of “set value” to input “0” in the pop-up keyboard, and touch “Enter”, and touch “OK” to save parameters.

Click on the upper right corner to return to the home page, and click “  ” to enter function selection page. Press ">" to switch to the SG-Ready page. Now “Smart power grid” lights. Touch it to check SG-Ready.

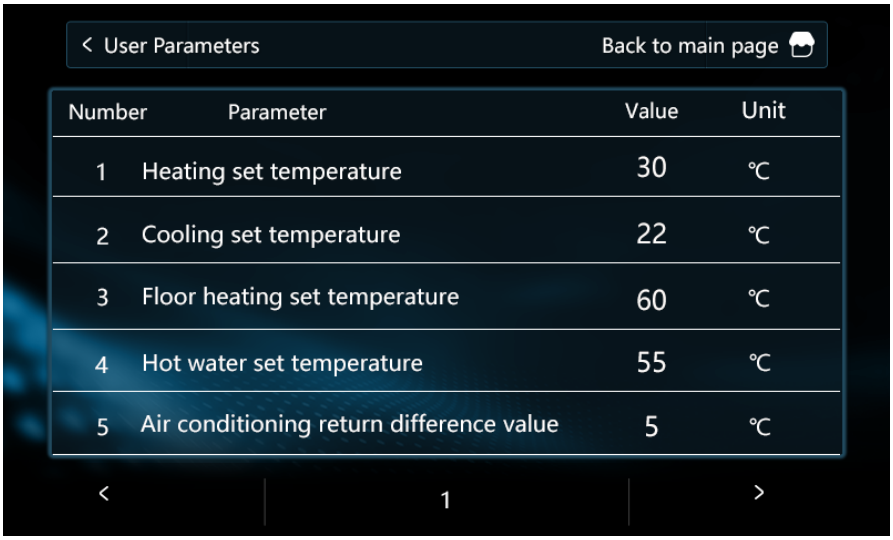


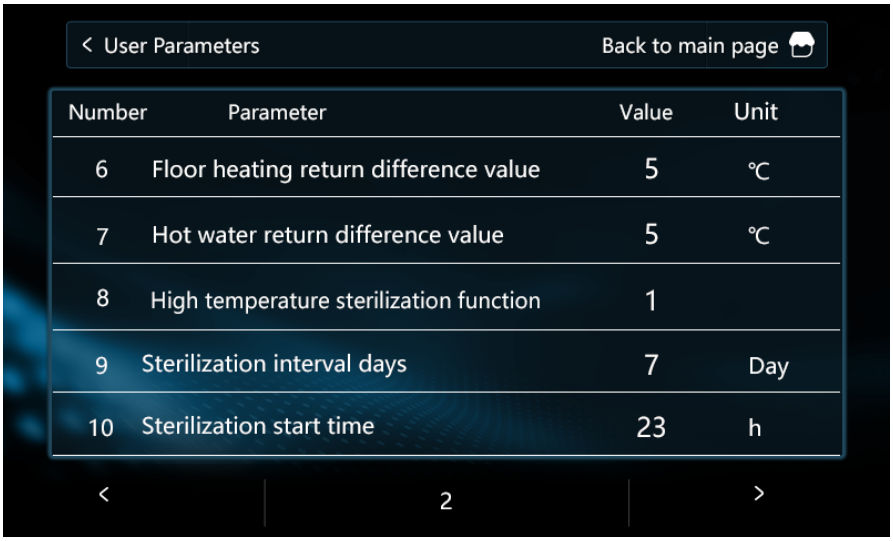
2.5 Parameter query key

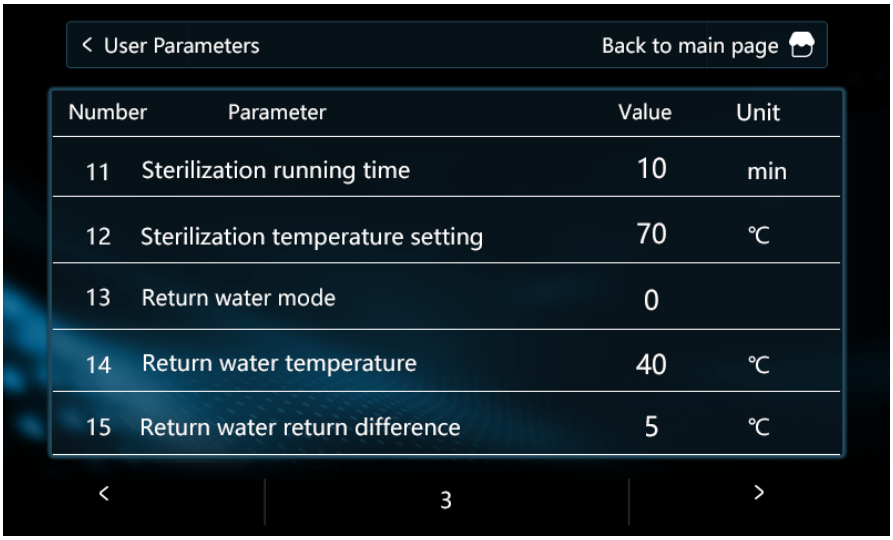
In the main interface when the screen is on, press “ ”to enter parameters query page.

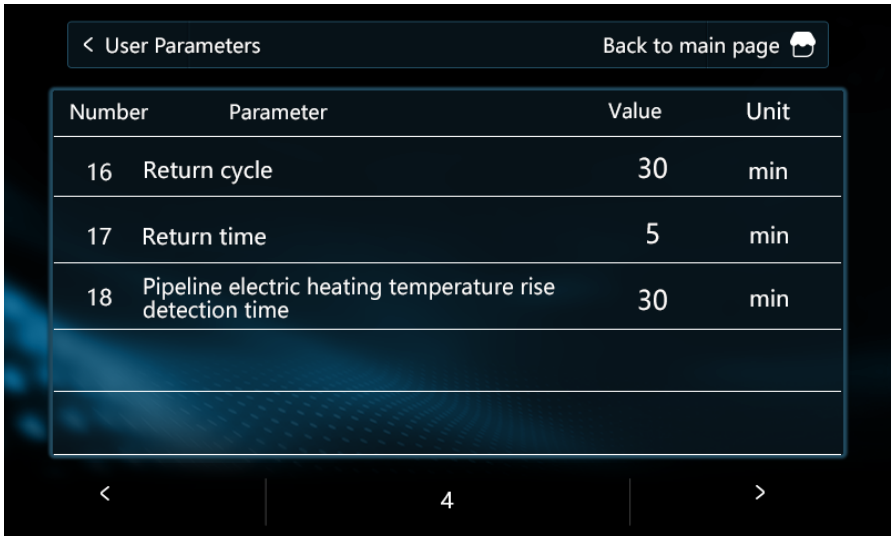
2.5.1 User parameter modification

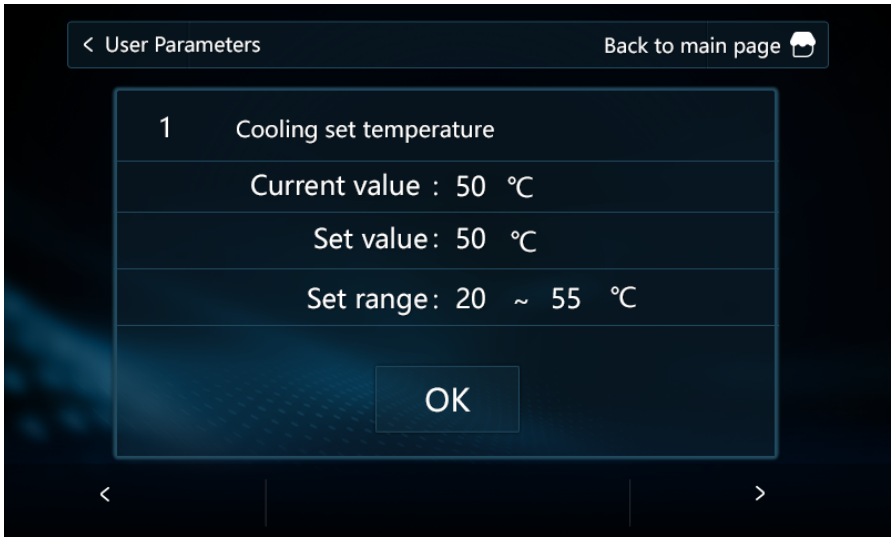
In the parameter query page, touch “User Parameters”to enter the user parameter list and press "<" ">" to switch pages. Click the parameter value on the right to enter the parameter value modification page. Touch the value on the right of “set value” to input modified value in the pop-up keyboard and touch “Enter” and “OK” in a row to save the parameters.


< User Parameters
Back to main page
Number
Parameter
Value
Unit
1
Heating set temperature
30
℃
2
Cooling set temperature
22
℃
3
Floor heating set temperature
60
℃
4
Hot water set temperature
55
℃
5
Air conditioning return difference value
5
℃
<
1
>


< User Parameters
Back to main page
Number
Parameter
Value
Unit
6
Floor heating return difference value
5
℃
7
Hot water return difference value
5
℃
8
High temperature sterilization function
1
9
Sterilization interval days
7
Day
10
Sterilization start time
23
h
<
2
>

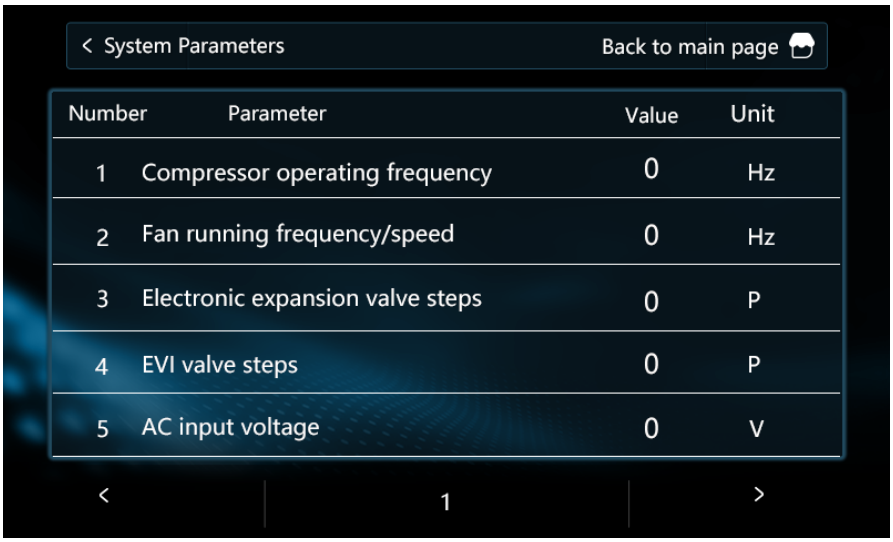

< User Parameters
Back to main page
Number
Parameter
Value
Unit
11
Sterilization running time
10
min
12
Sterilization temperature setting
70
℃
13
Return water mode
0
14
Return water temperature
40
℃
15
Return water return difference
5
℃
<
3
>

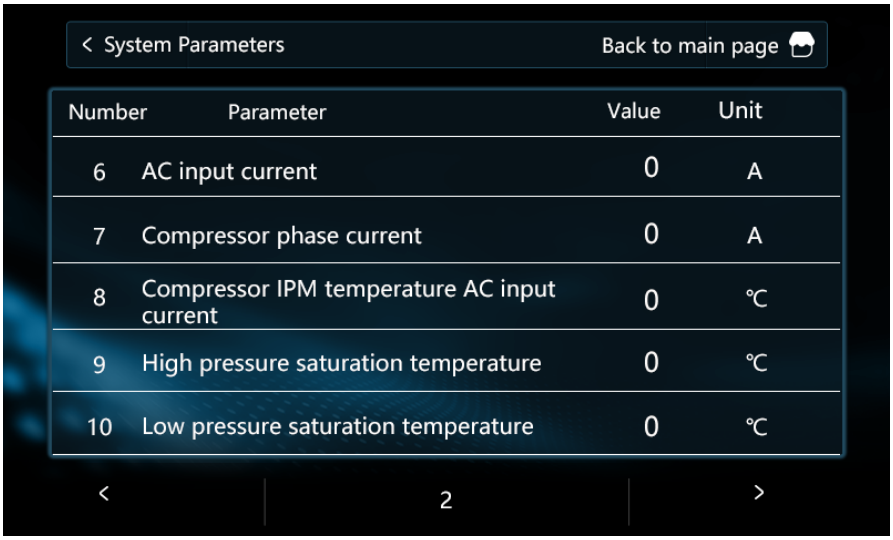


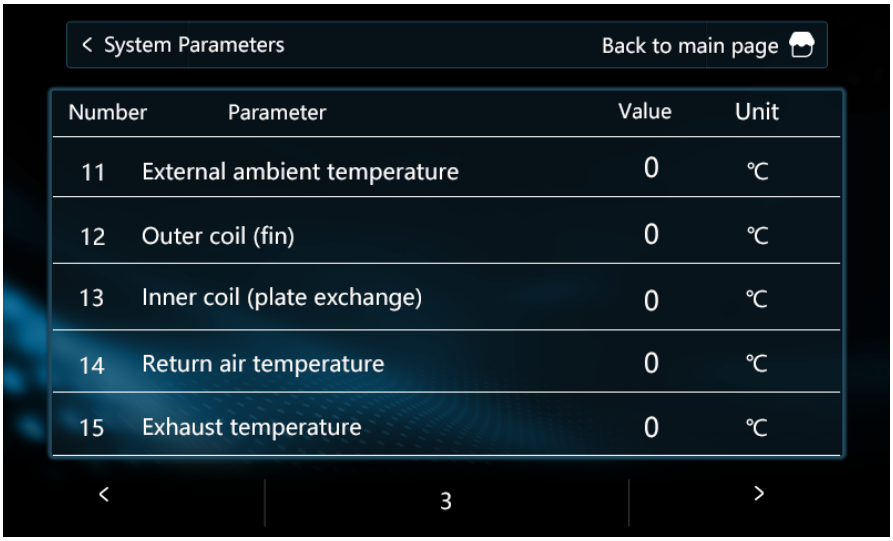


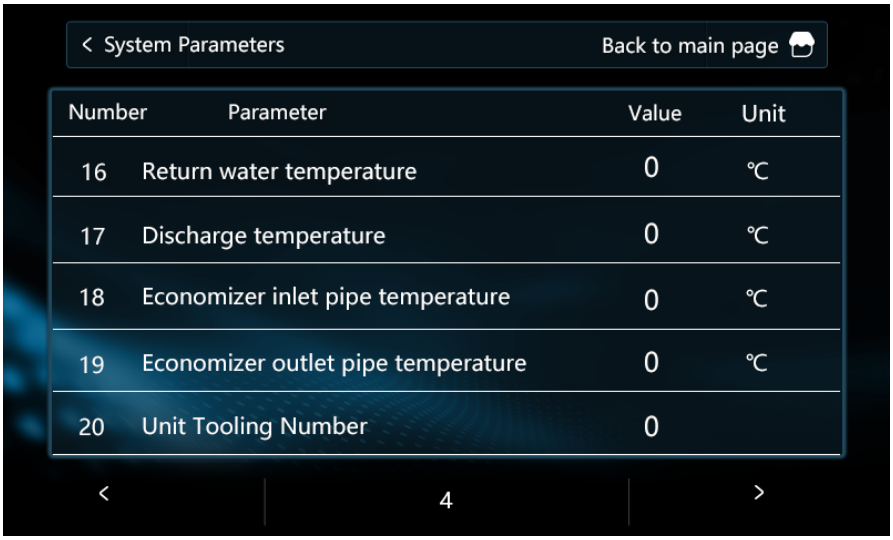
2.5.2 Query of operating parameters

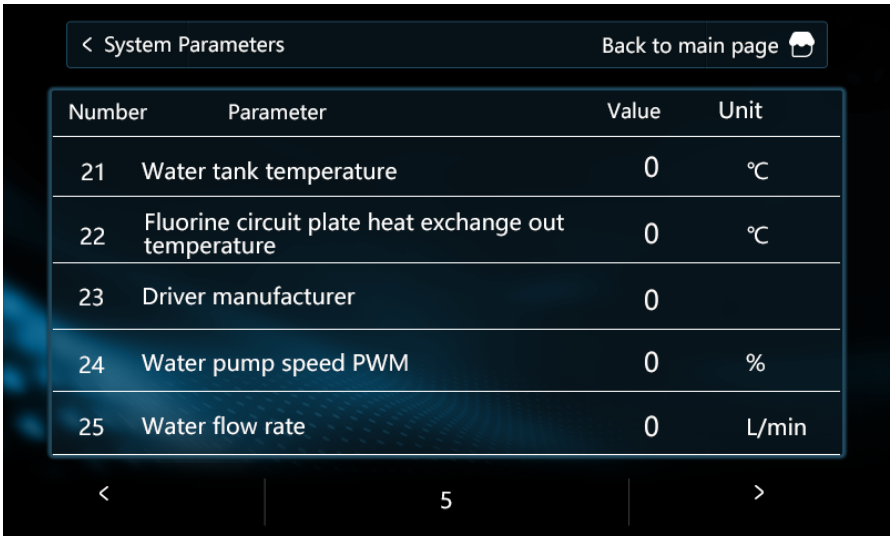
In the parameter query page，touch“System Parameters” to enter the operating parameters to view. Press "<" ">" to switch pages.

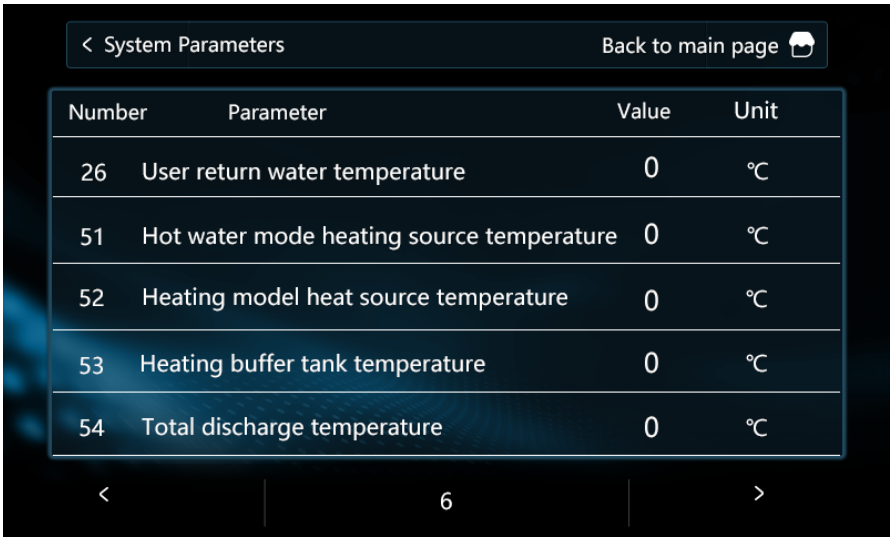



System Parameters
Back to main page
Number
Parameter
Value
Unit
6
AC input current
0
A
7
Compressor phase current
0
A
8
Compressor IPM temperature AC input current
0
℃
9
High pressure saturation temperature
0
℃
10
Low pressure saturation temperature
0
℃
2


System Parameters
Back to main page
Number
Parameter
Value
Unit
11
External ambient temperature
0
℃
12
Outer coil (fin)
0
℃
13
Inner coil (plate exchange)
0
℃
14
Return air temperature
0
℃
15
Exhaust temperature
0
℃
3


System Parameters
Back to main page
Number
Parameter
Value
Unit
16
Return water temperature
0
℃
17
Discharge temperature
0
℃
18
Economizer inlet pipe temperature
0
℃
19
Economizer outlet pipe temperature
0
℃
20
Unit Tooling Number
0
4

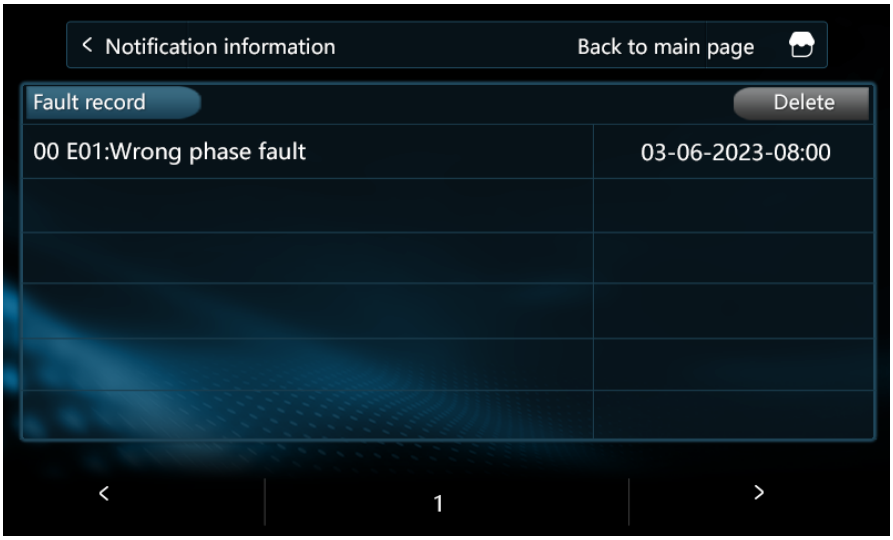




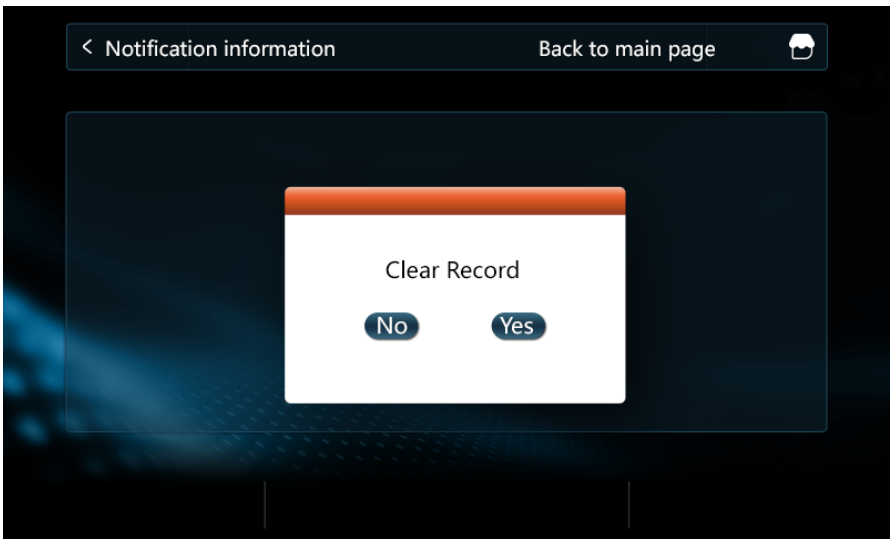
When more than one unit is connected, in the parameter query page touch “System Parameters” to enter the selection of unit number.. Click the corresponding unit number to enter the query of the operating parameters of the corresponding unit. Grey icon means the unit is not connected.

2.5.3 Troubleshooting

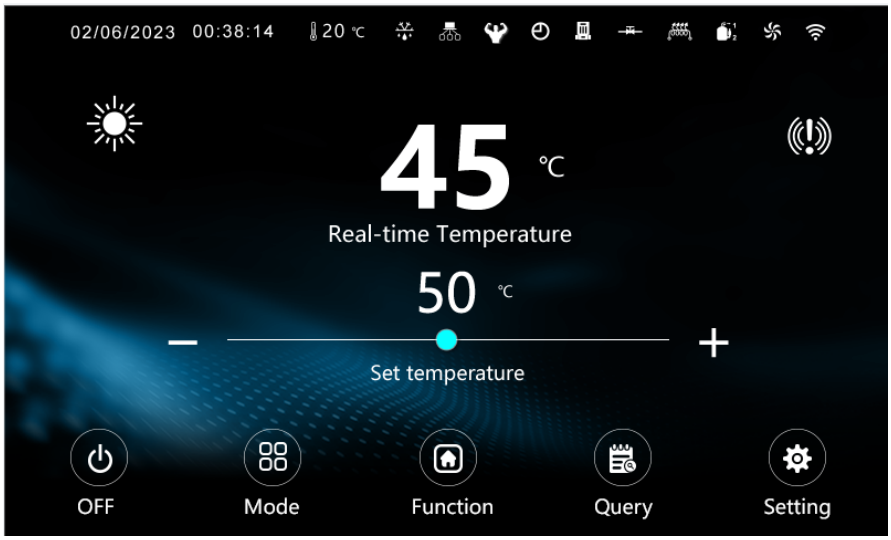
In the parameter query page, touch “Notification information”enter troubleshooting.

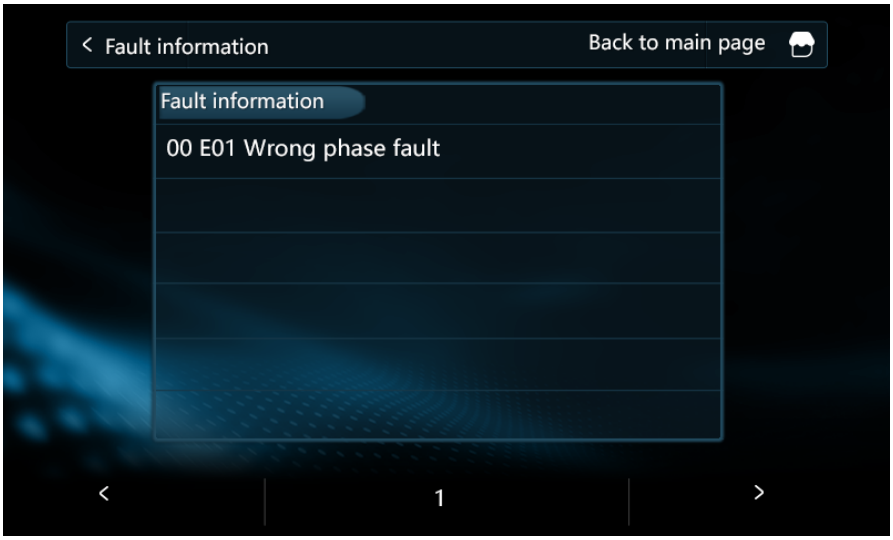


Touch “Delete” and touch “No/Yes”to select “cancel/confirm” to clear history failure.



In the main interface, when the unit has a failure, the "  " icon flashes, and when the failure is eliminated, the icon goes out; click the icon to enter the fault query page;



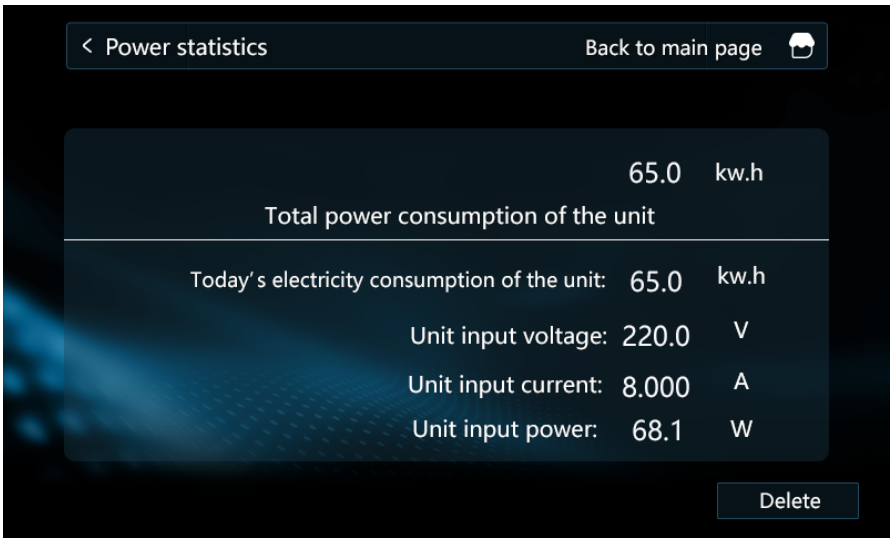


Touch “Fault information” to view history failure, and touch “Delete”to choose whether to clear the history failure.

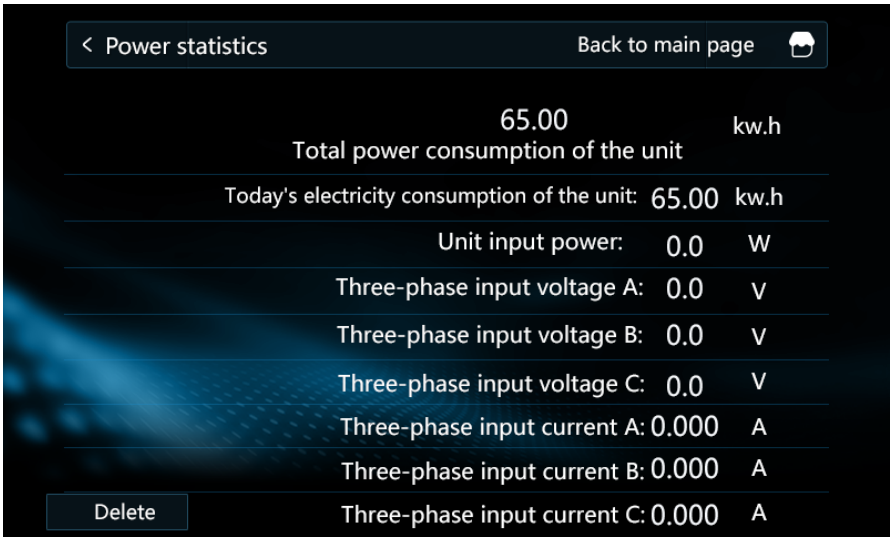
2.5.4 Electricity page inquiry

When the unit is equipped with a power module, in the parameter query page touch “Power statistics” to enter electricity page inquiry. Total power consumption, current power, voltage, and current parameters can be checked.

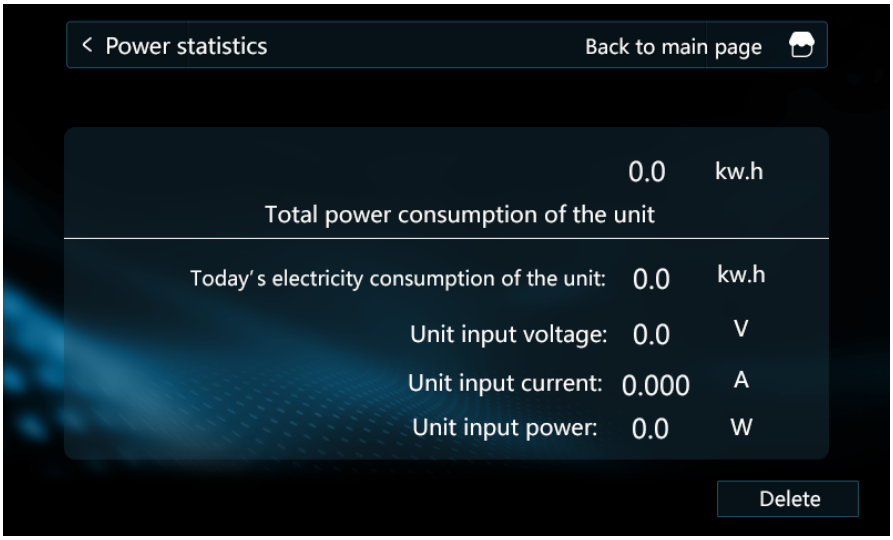
(1) Single phase

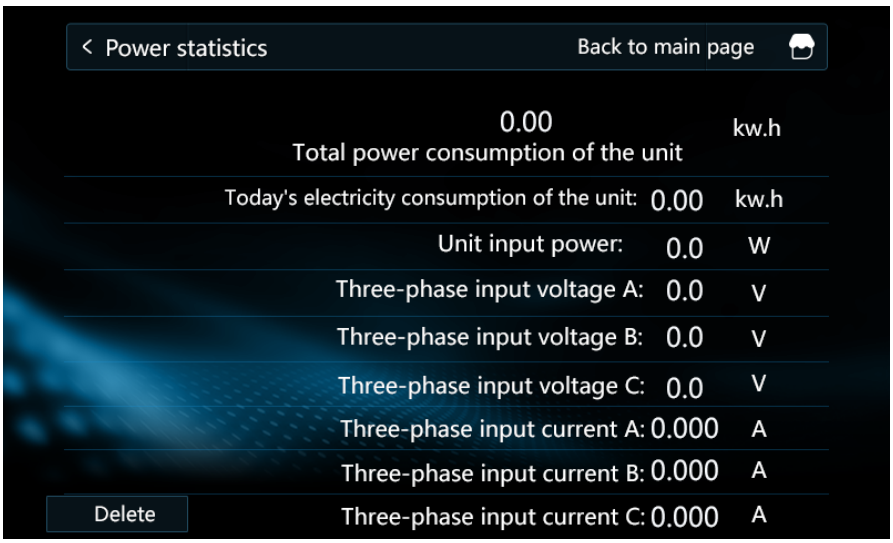


(2) Three phase



(3) Touch “Delete” to reset power consumption to “0”.

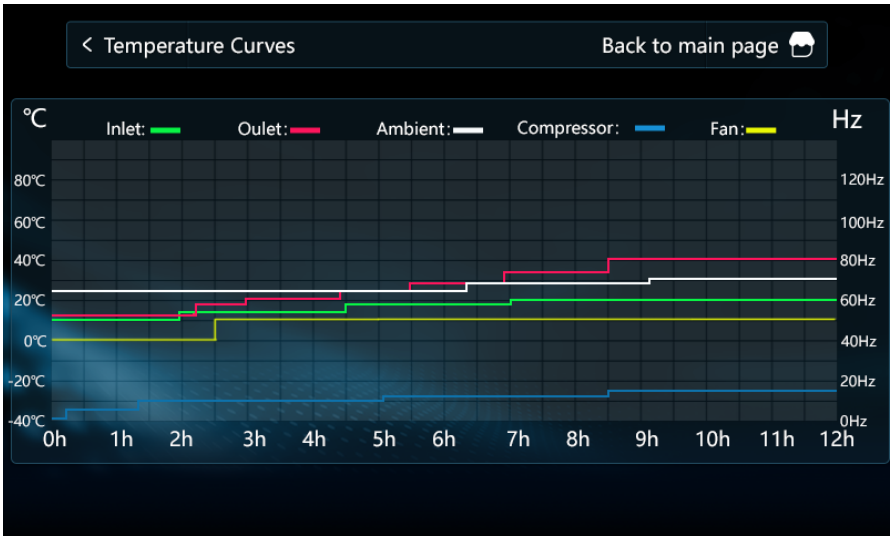




2.5.5 Curve query

In the parameter query page, touch “Temperature Curves” to enter curve query. This page records 5 parameters including water inlet temperature, water outlet temperature, compressor frequency, ambient temperature, and fan motor frequency within 24 hours.

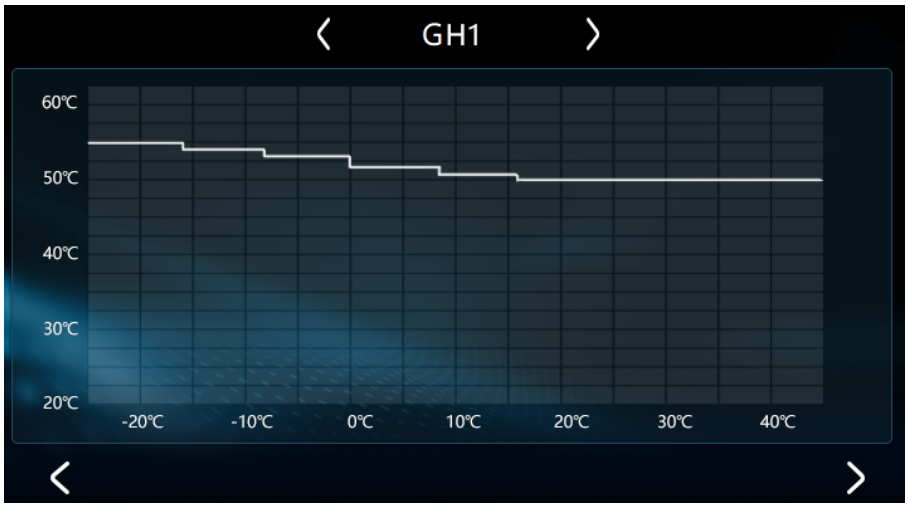
xh: indicates the state of x hours ago

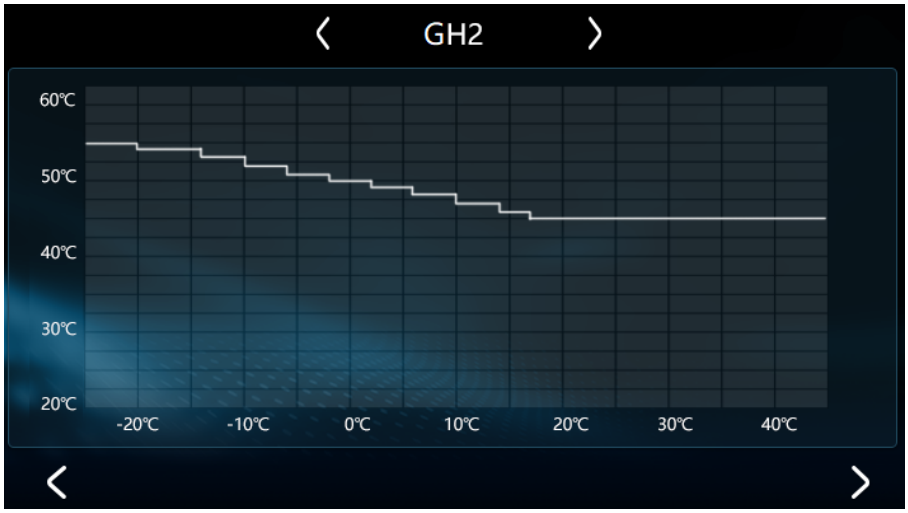


2.5.6 Curve settings

In the parameter query page, touch “Set Temperature Curves”to enter query setting. Press "<" ">" to switch the curve settings in different modes; click the curve code to select a different curve control, and the specific parameters of the current curve will be displayed in the curve area; when the curve function is set, the set temperature will be updated every 15 minutes according to the current ambient temperature, and changing the set temperature through any scene is invalid.

1. **Underfloor heating mode**




GH2
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30℃
20℃
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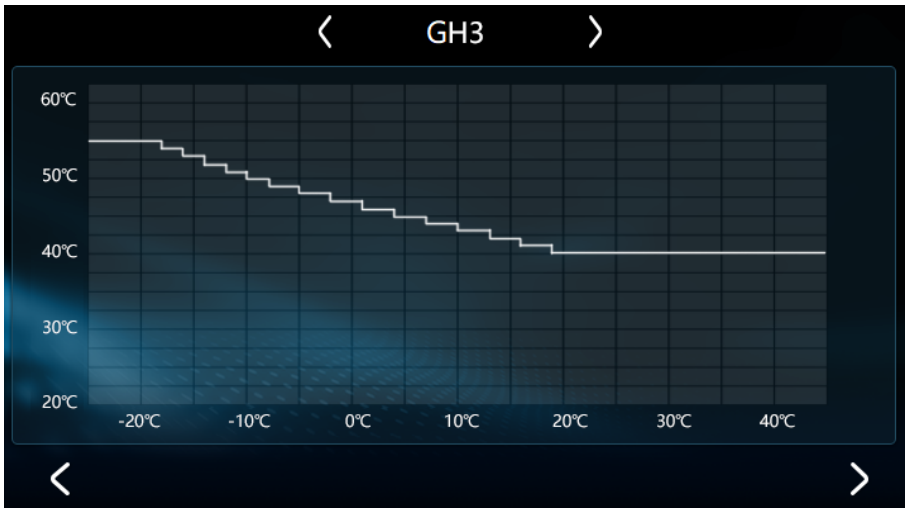
GH3
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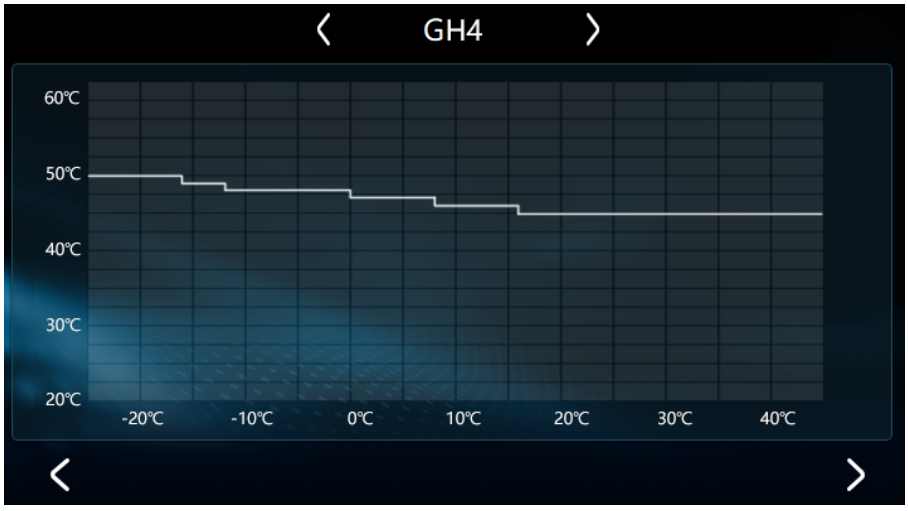
GH4
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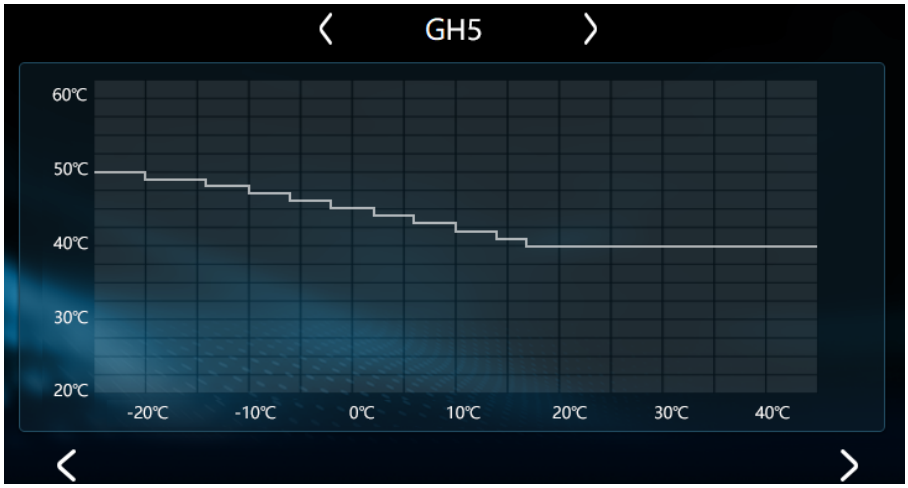
GH5
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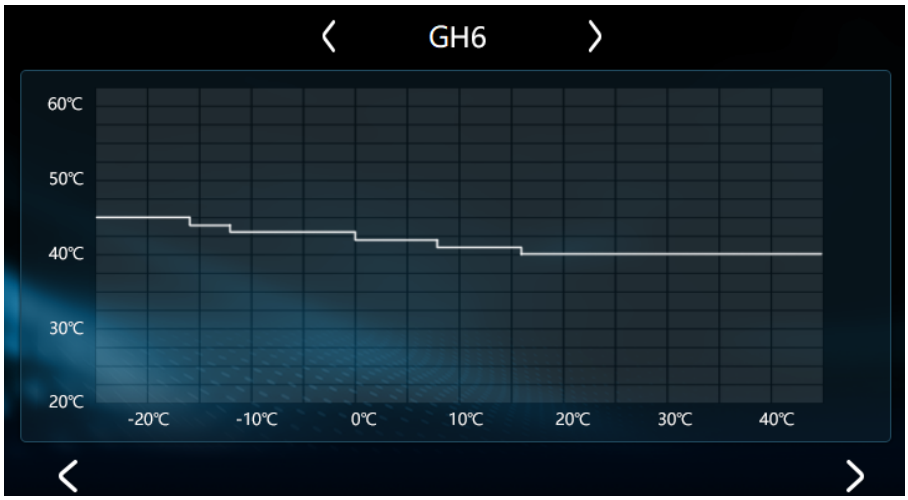
GH6
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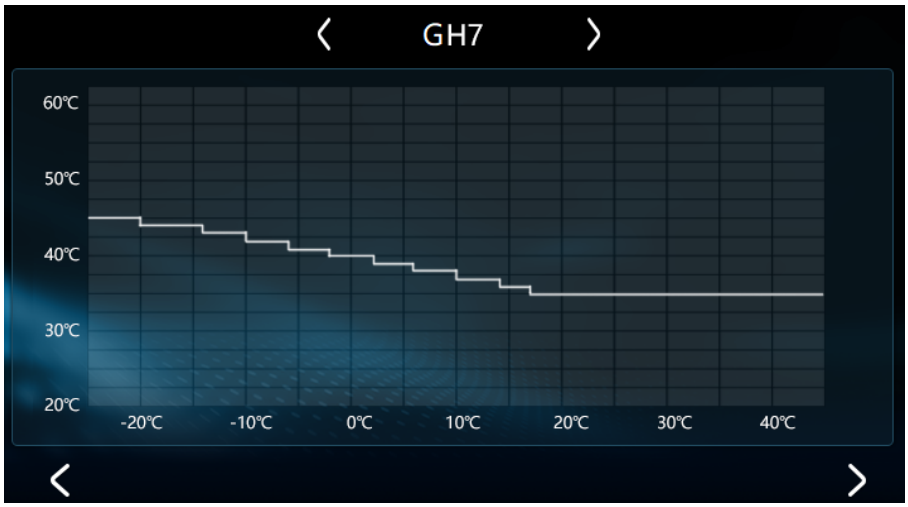
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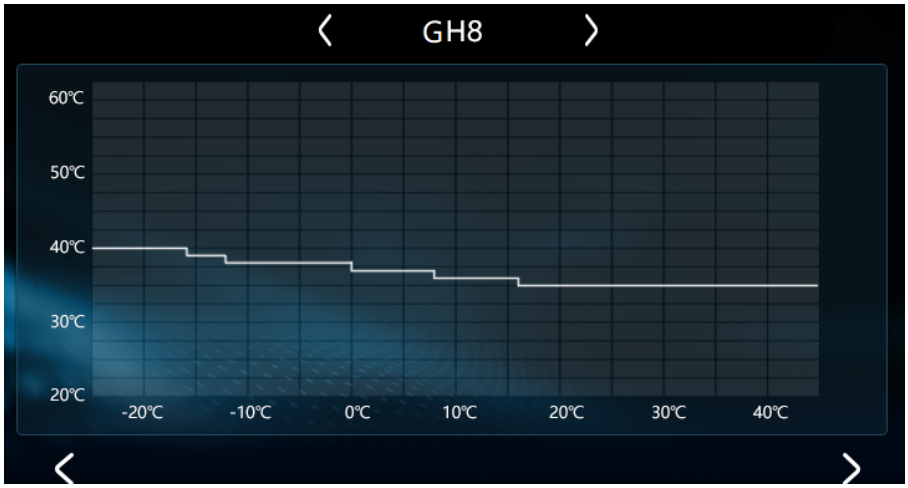
GH8
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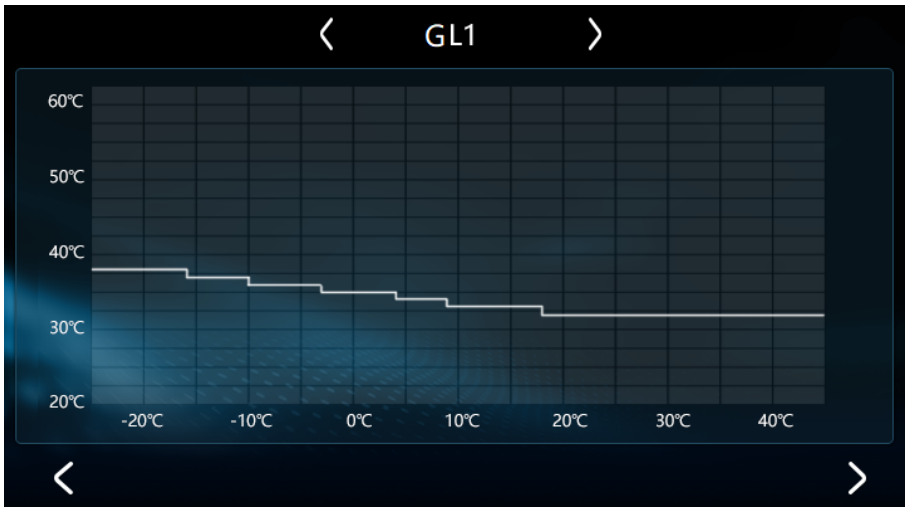
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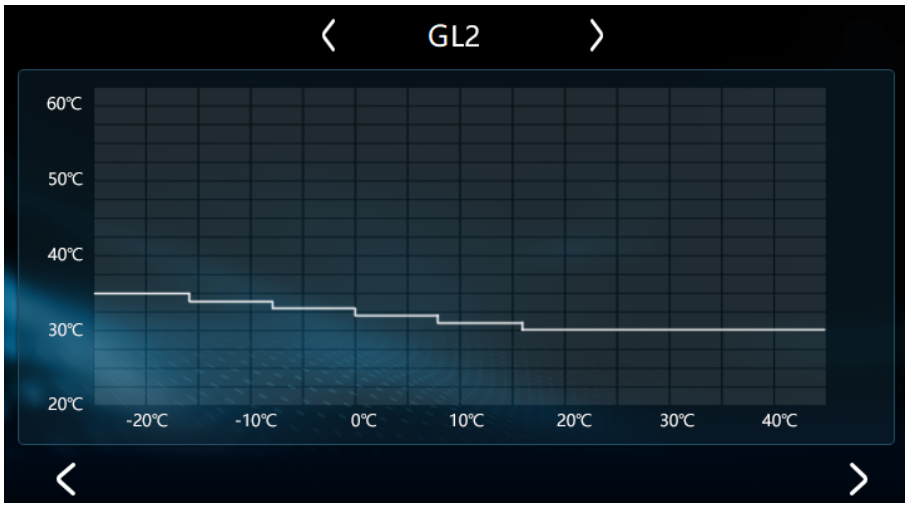
GL2
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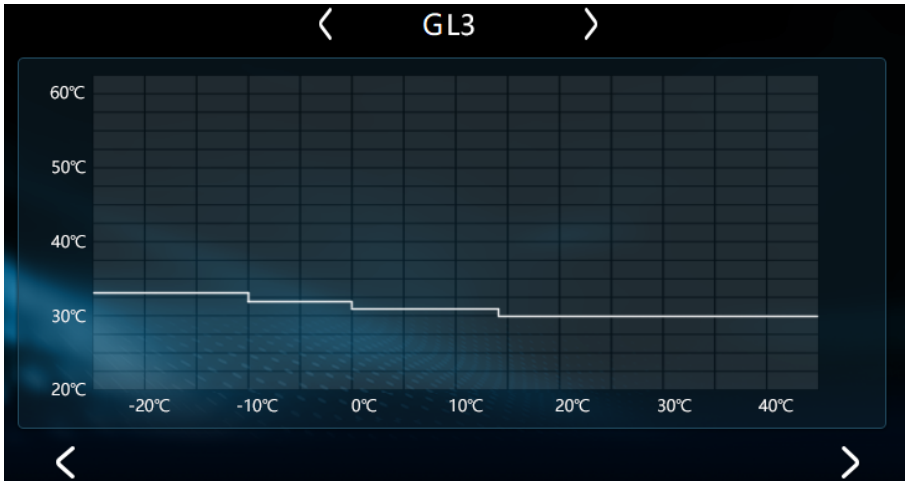
GL3
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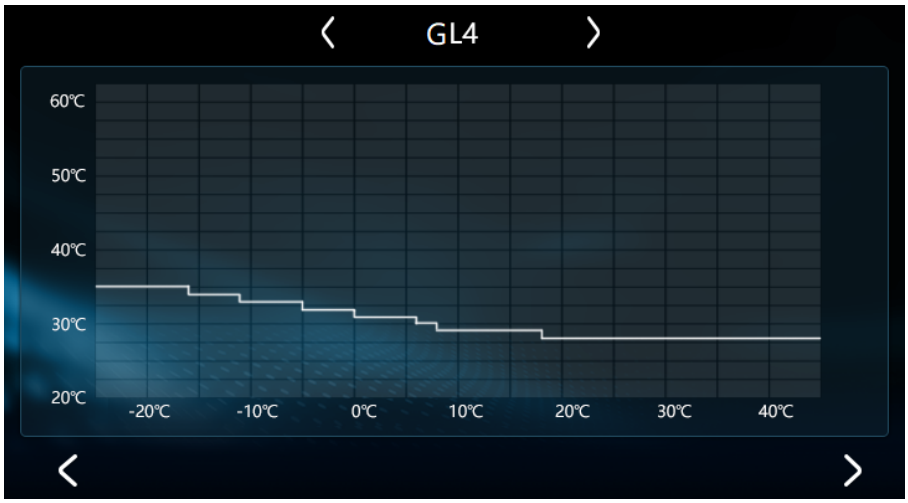
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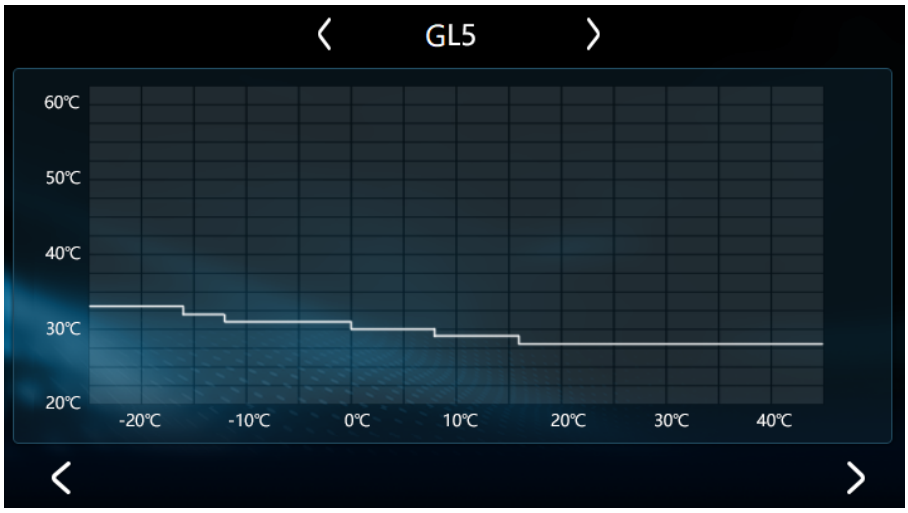
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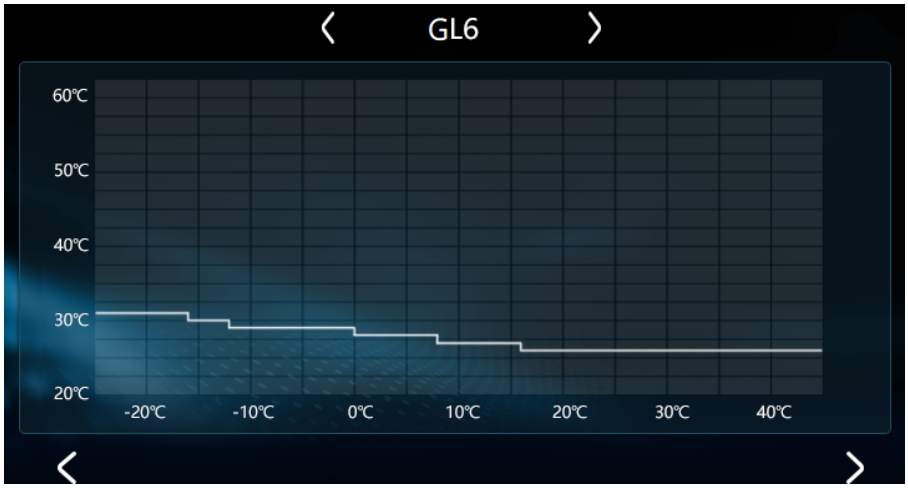
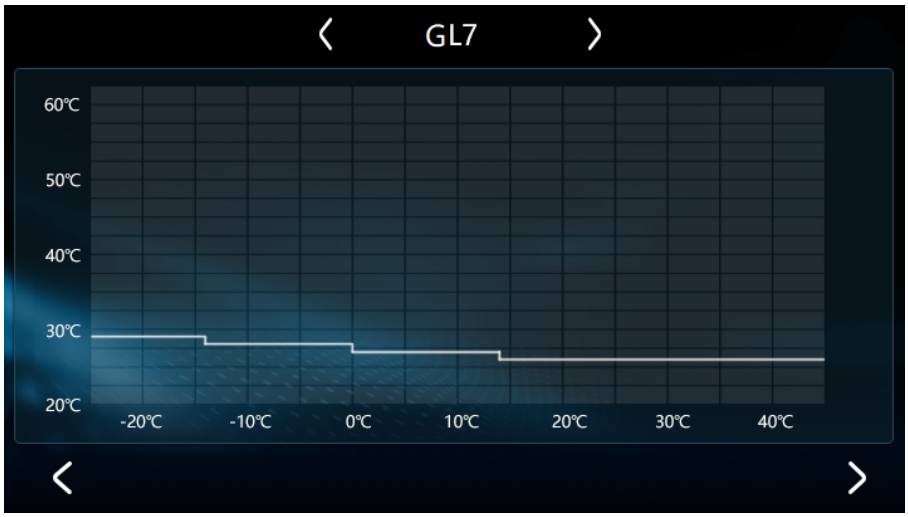
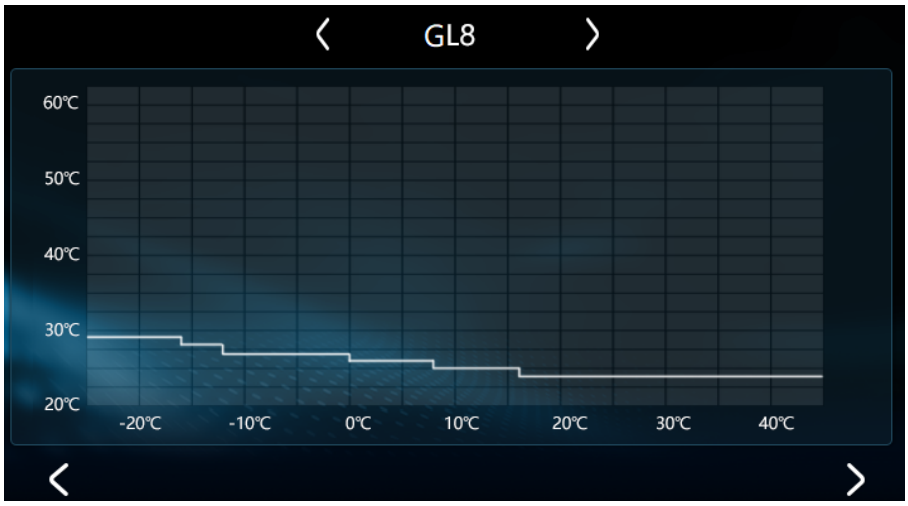
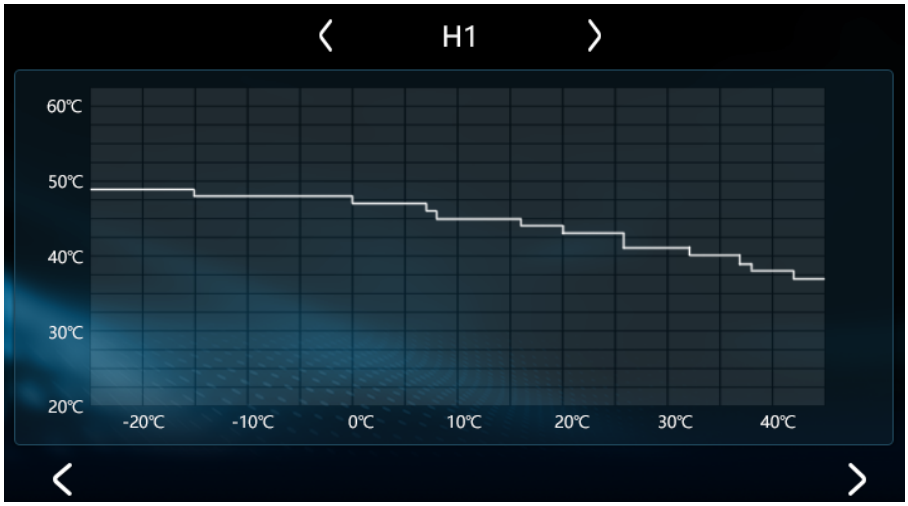






2. Hot water mode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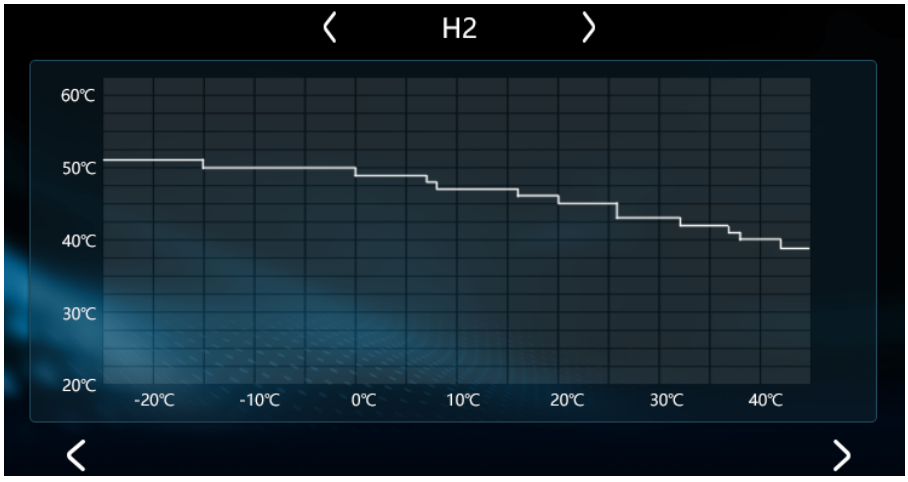
H2
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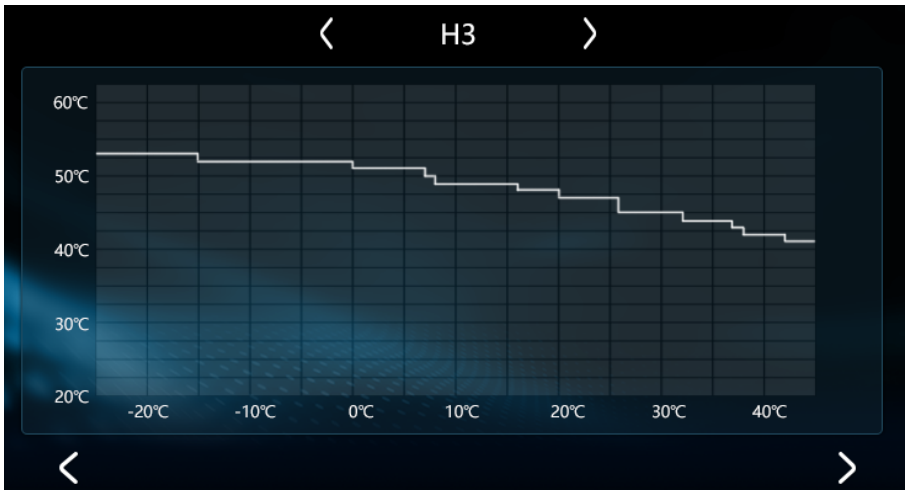
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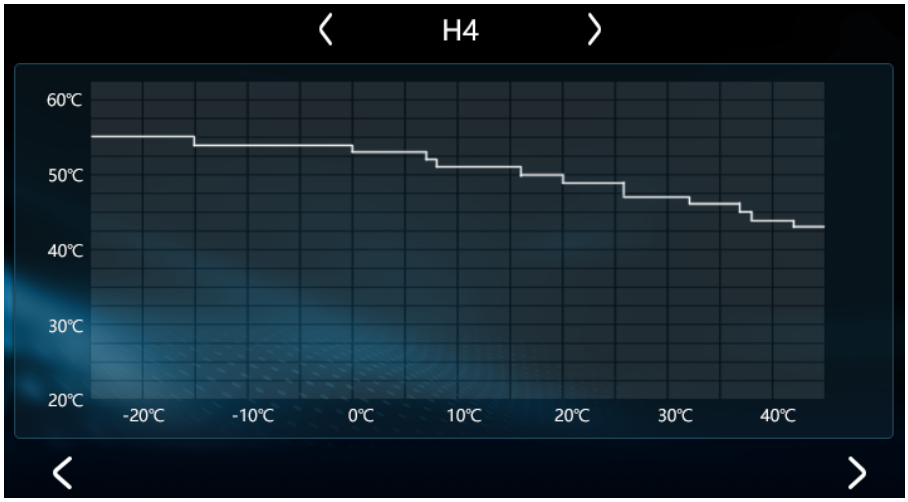
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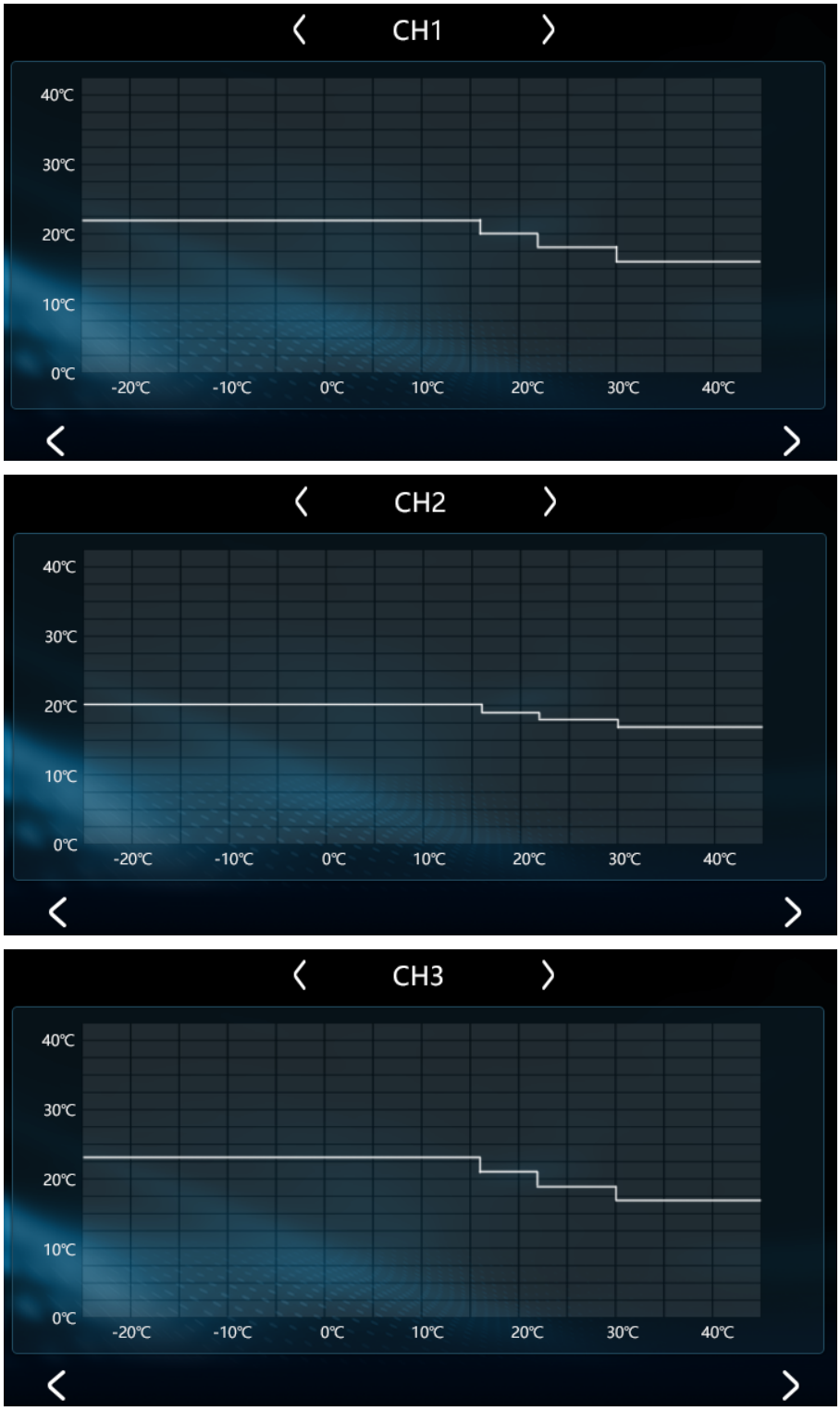
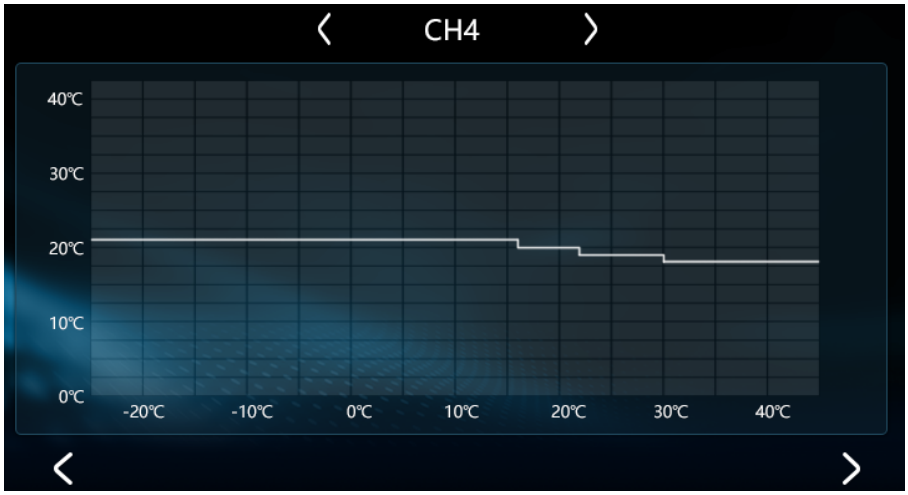
3. Cooling mode

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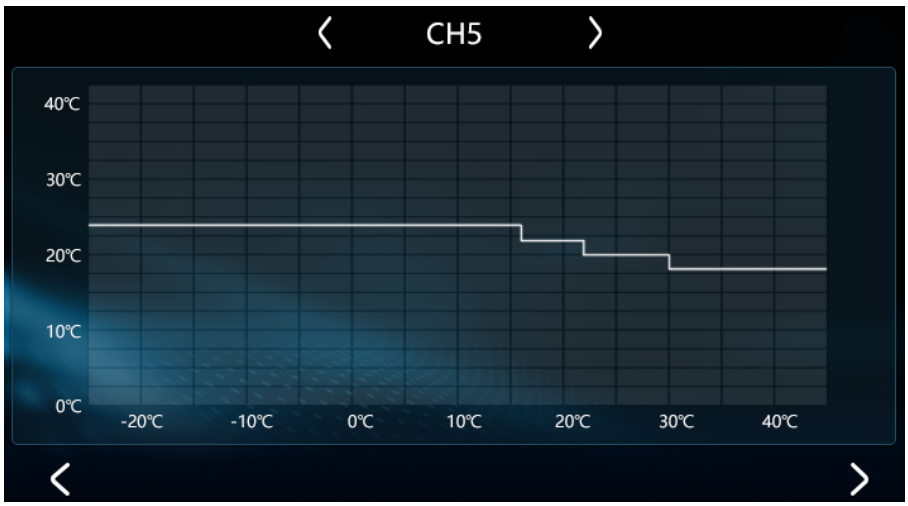
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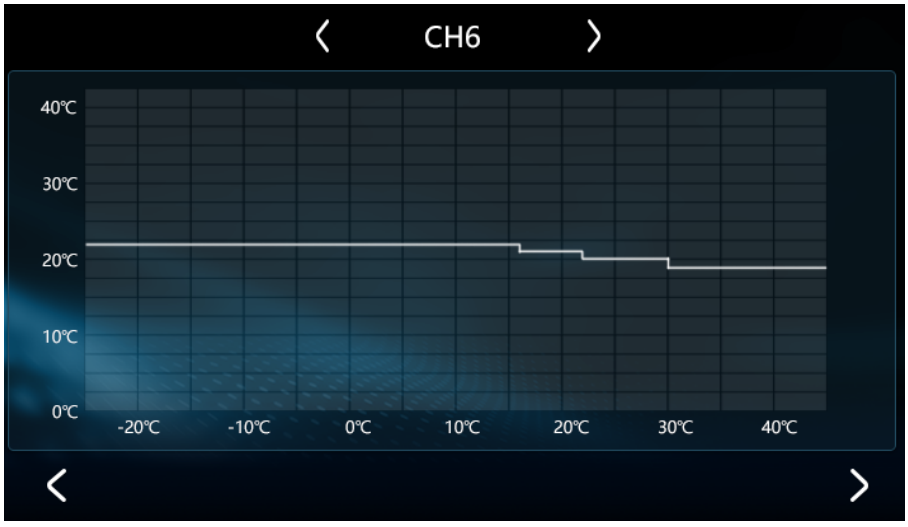
CH6
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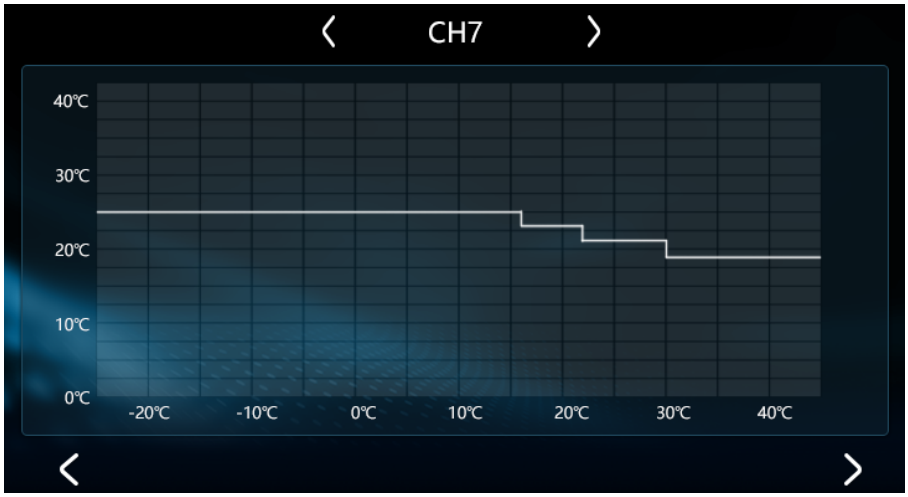
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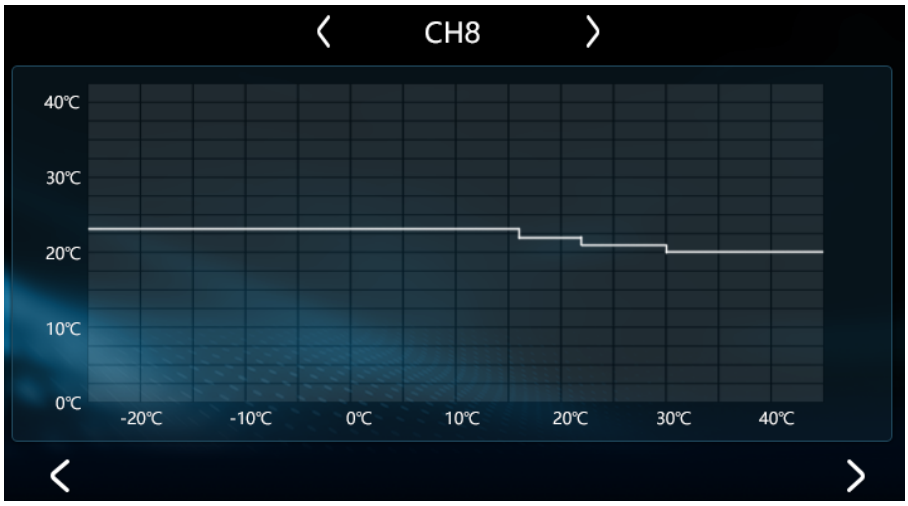
CH8
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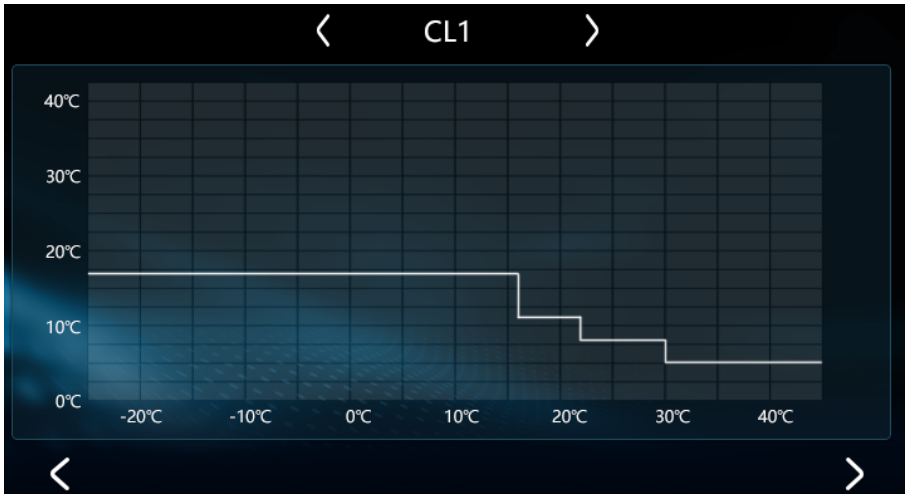
CL1
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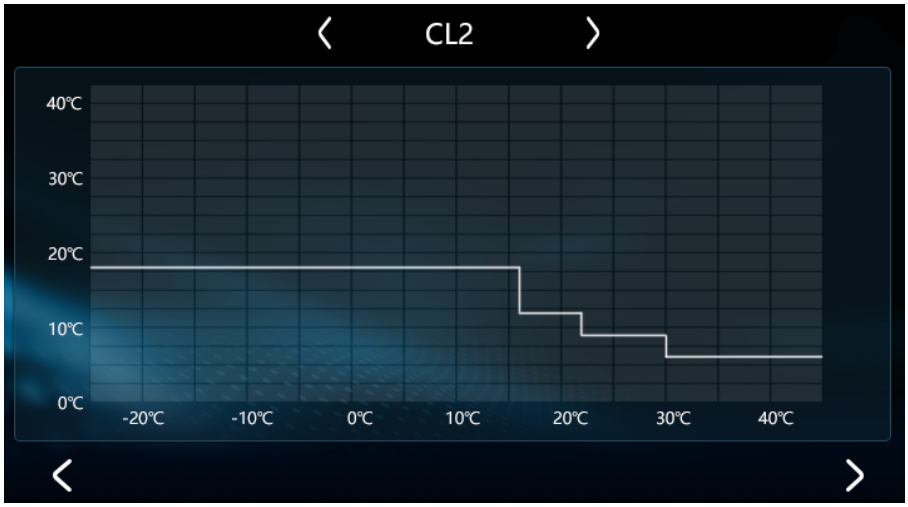
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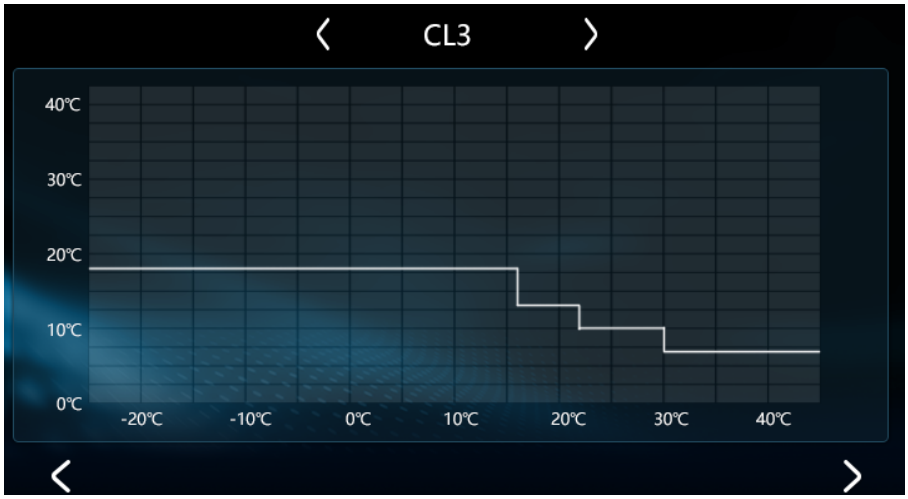
CL3
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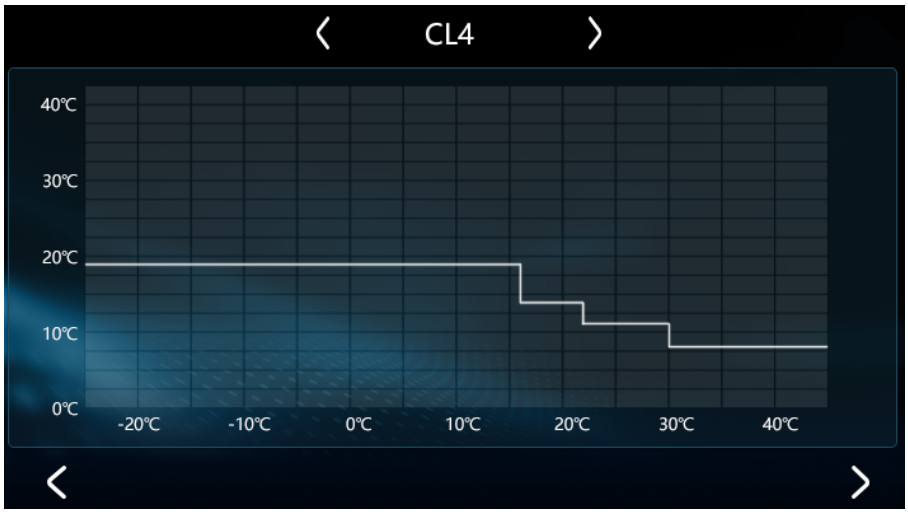
CL4
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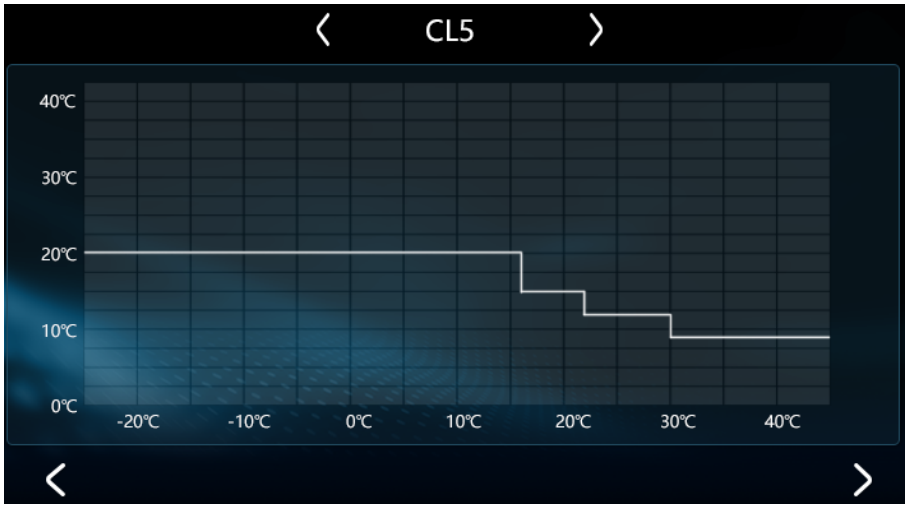
CL5
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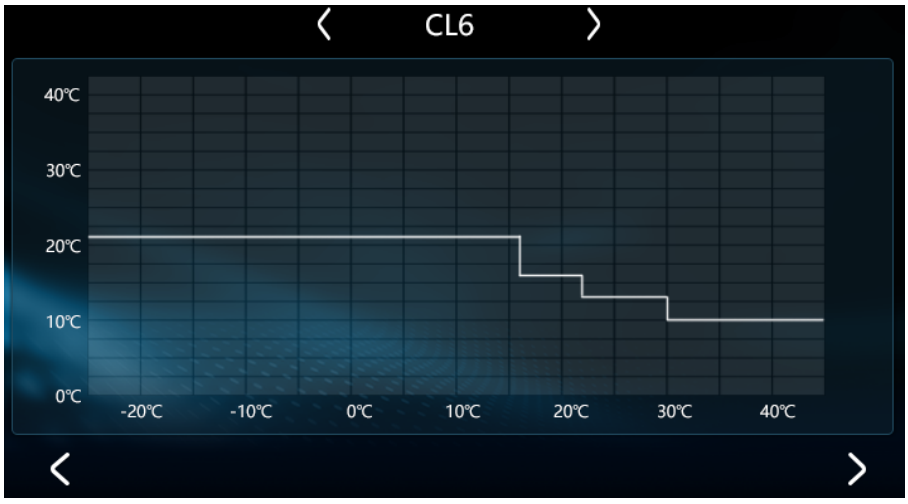
CL6
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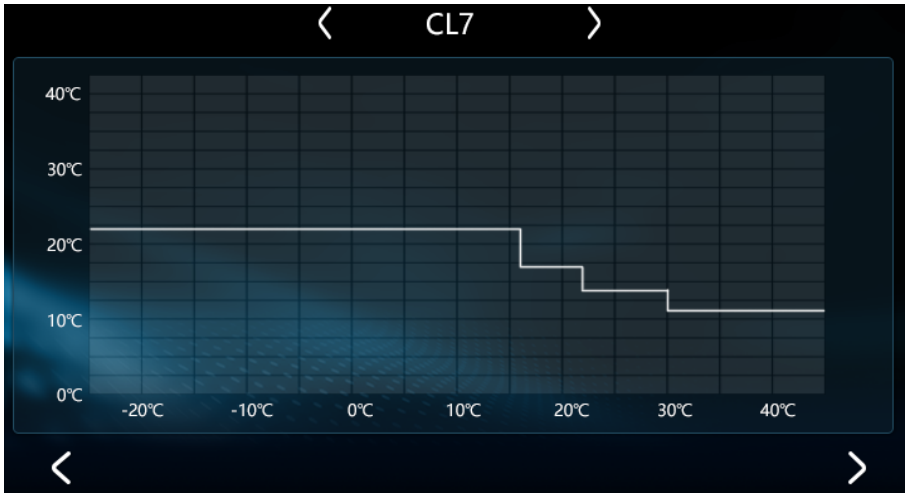
CL7
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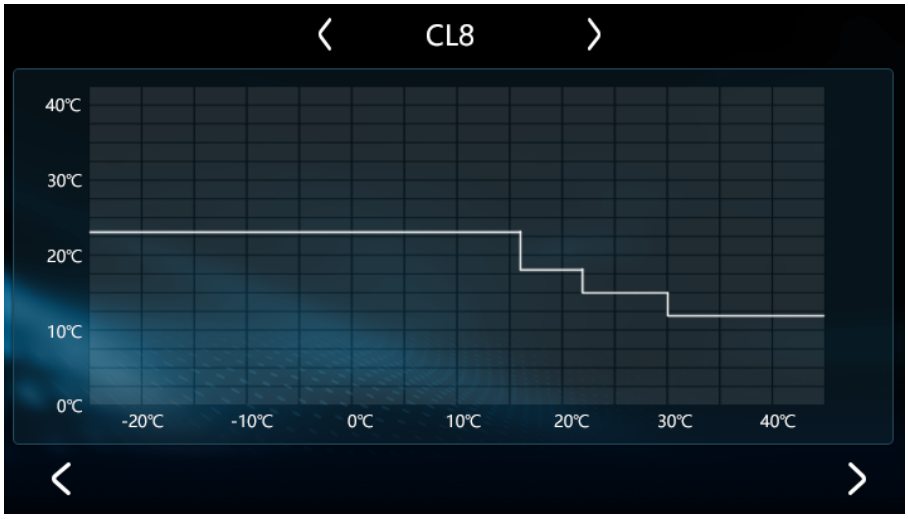
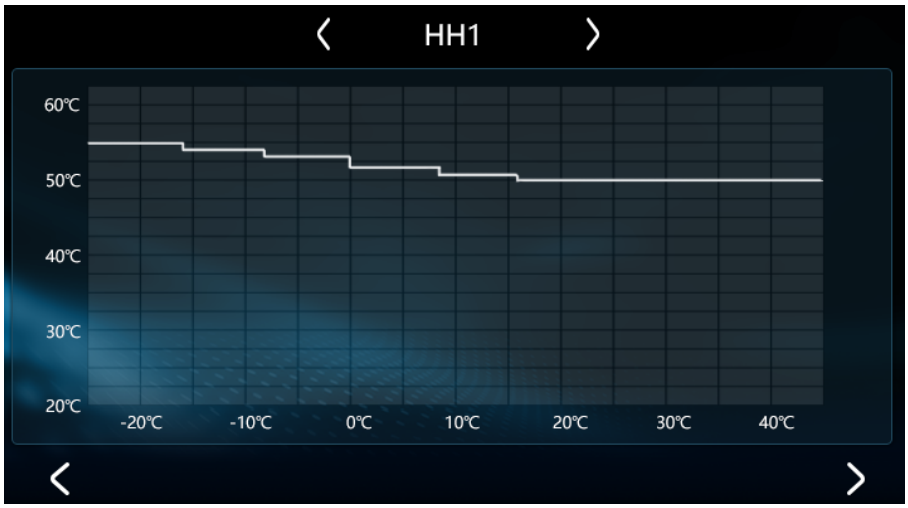
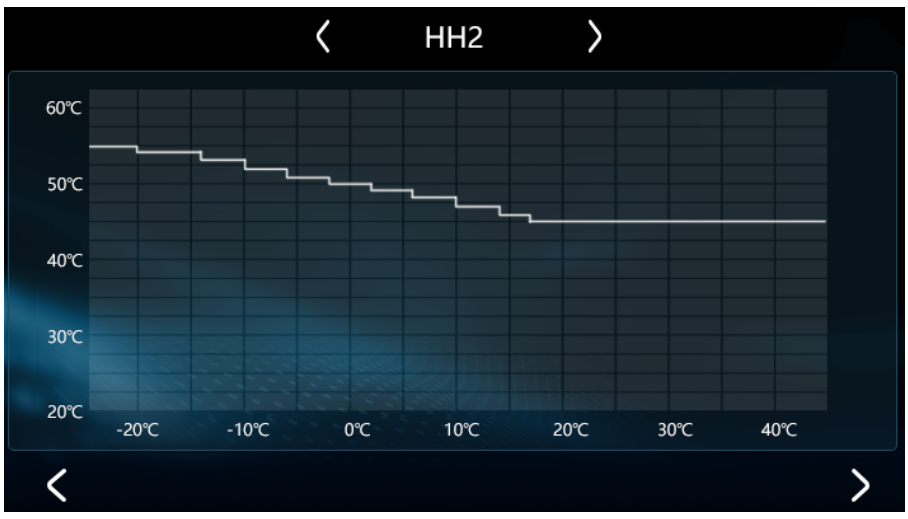
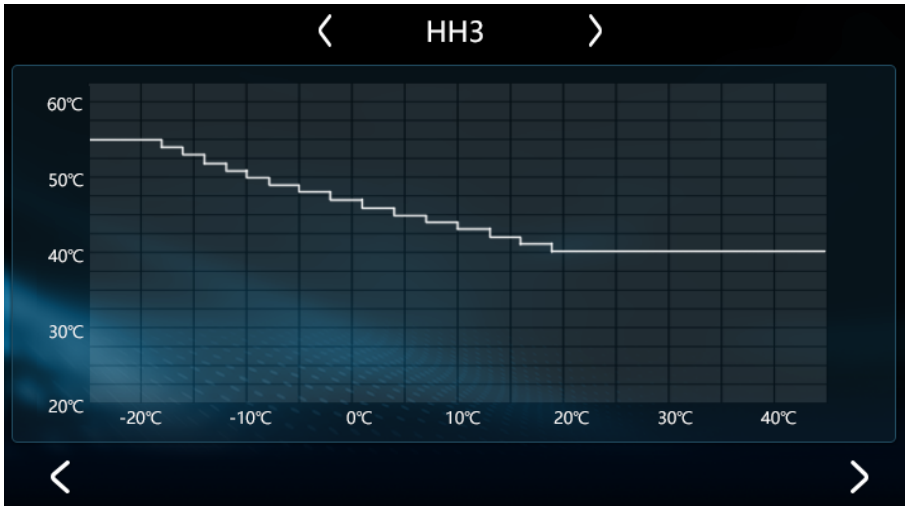


4. Heating mode






HH3
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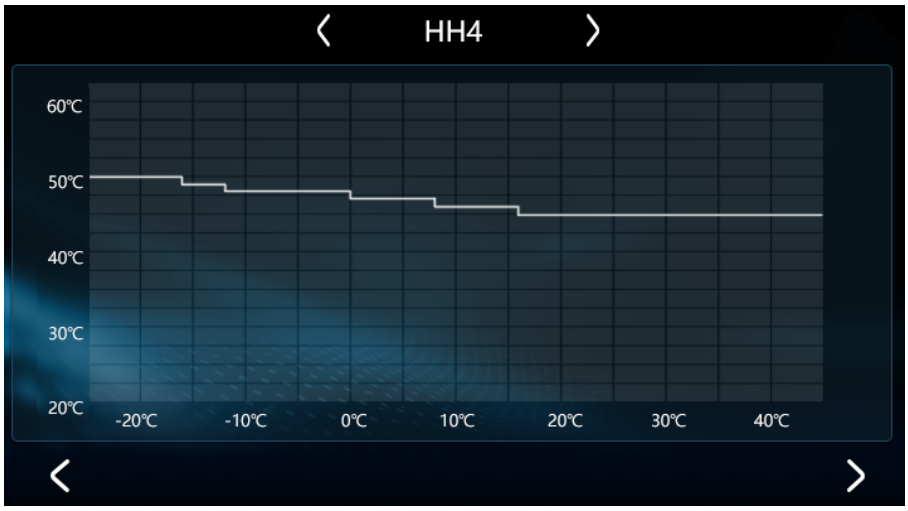
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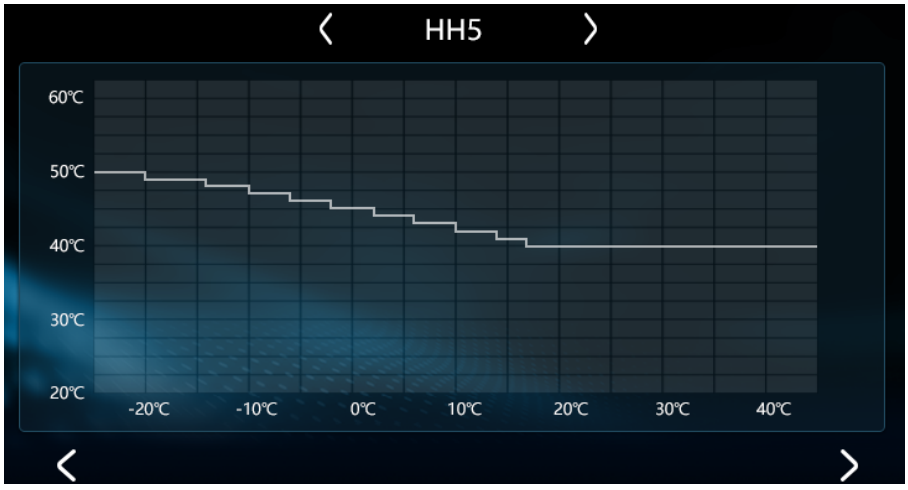
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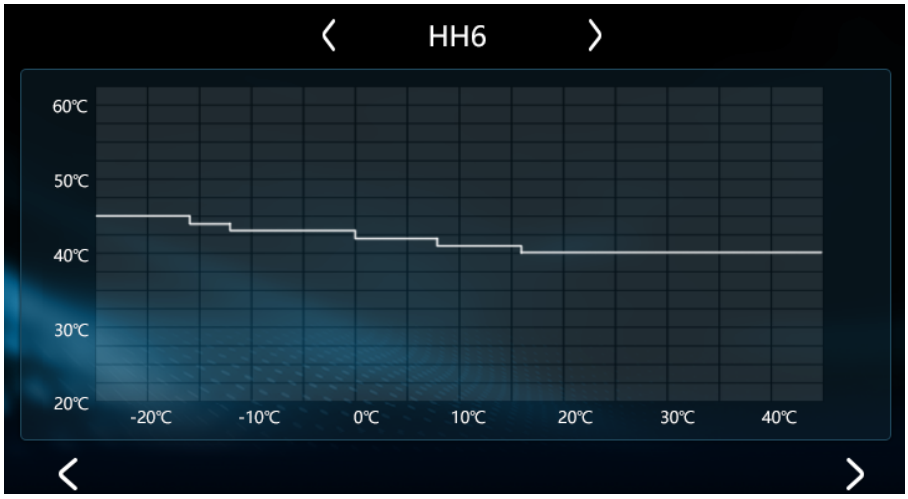
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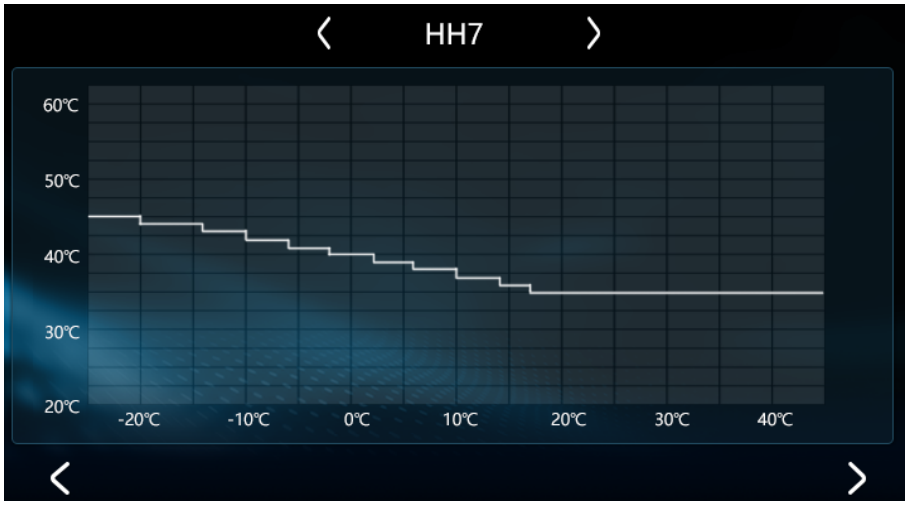
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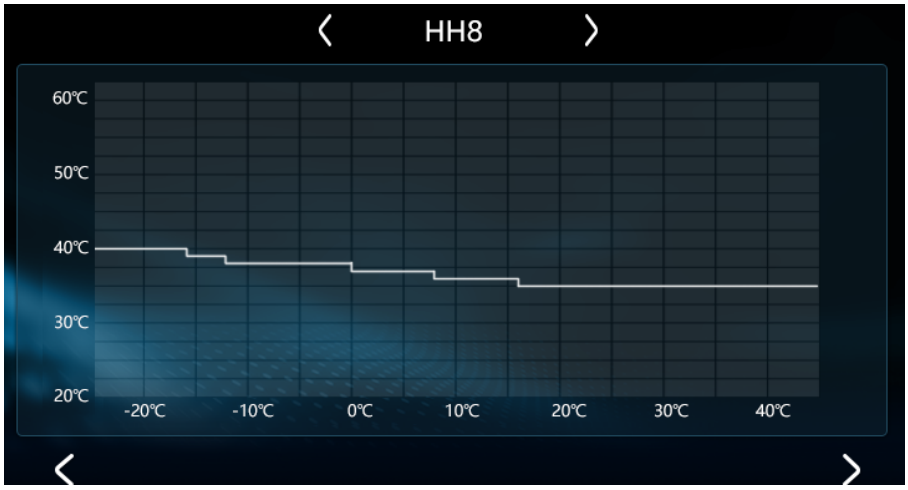
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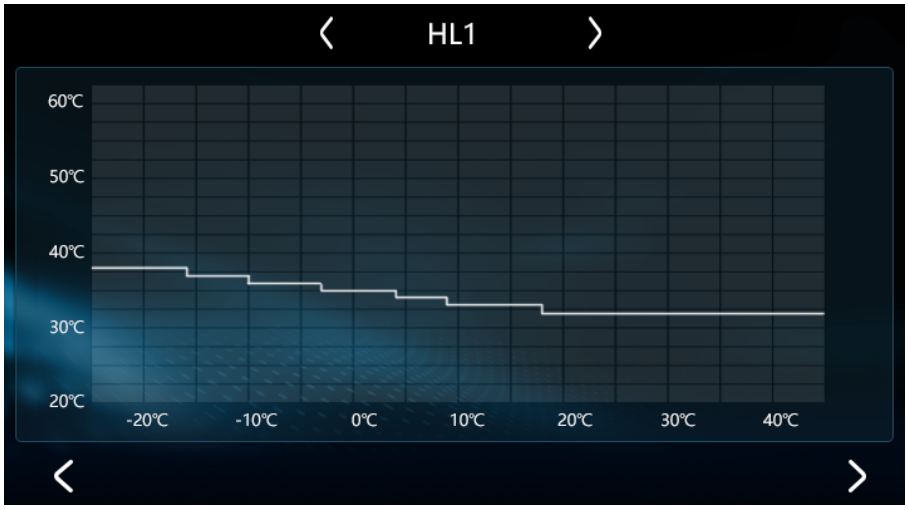
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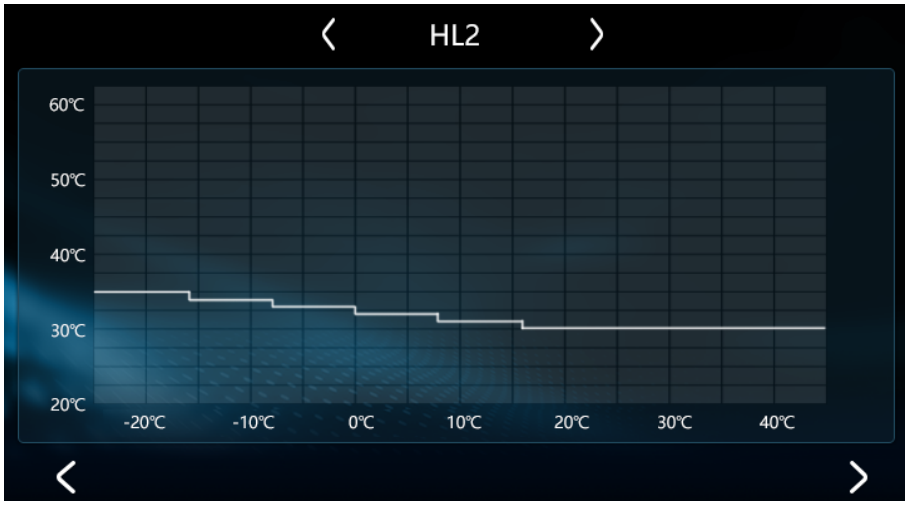
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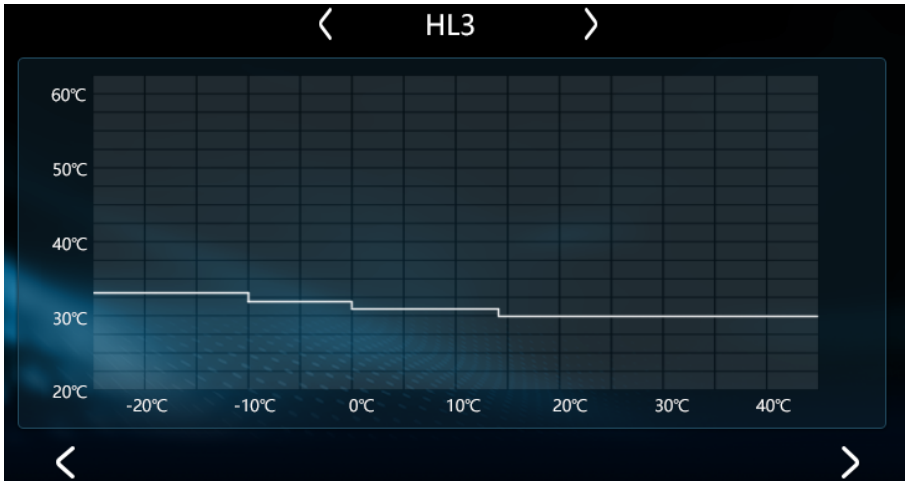
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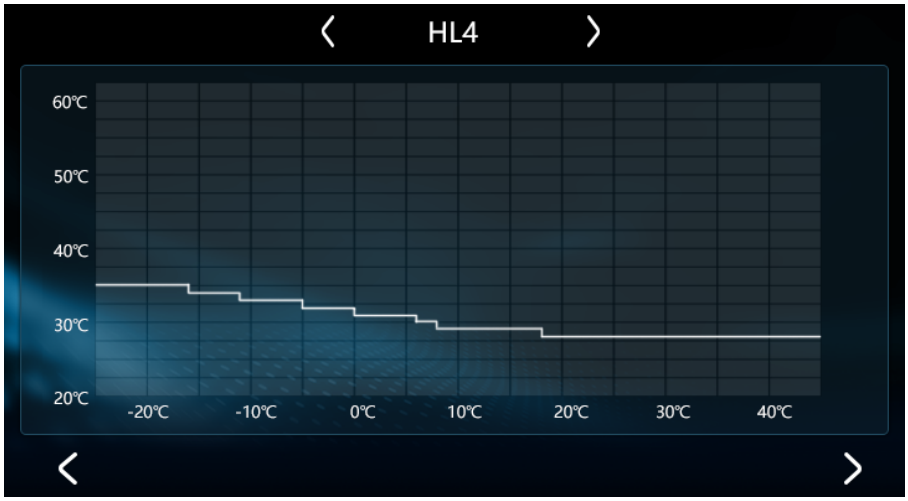
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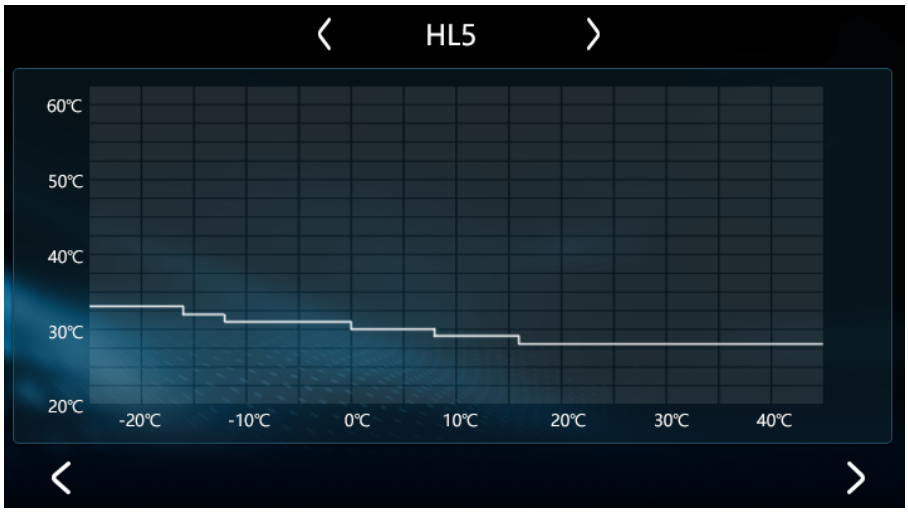
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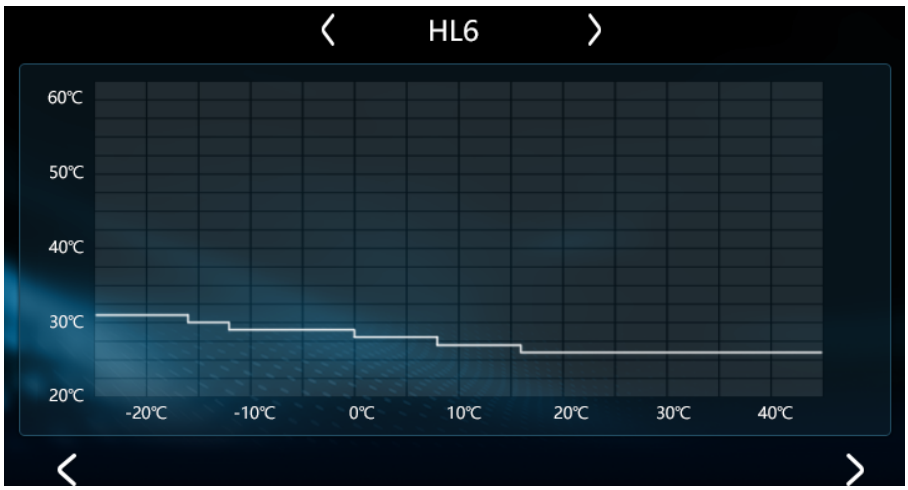
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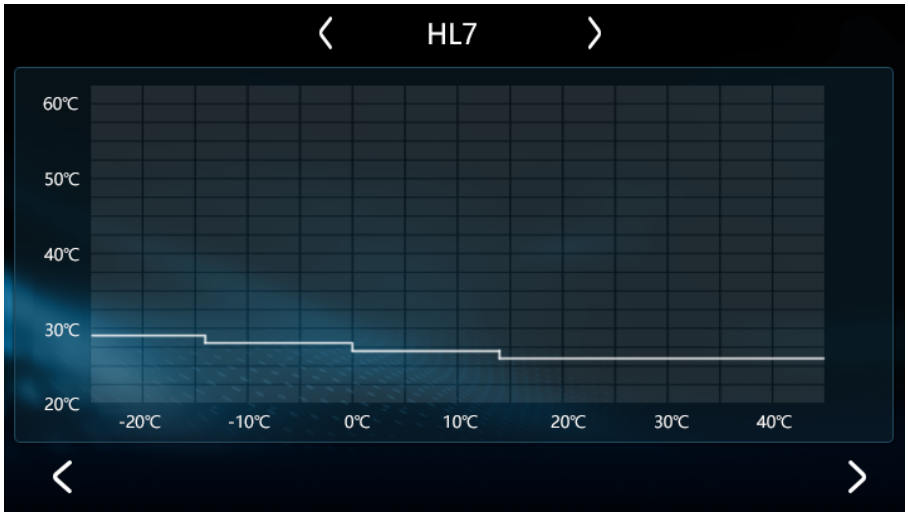
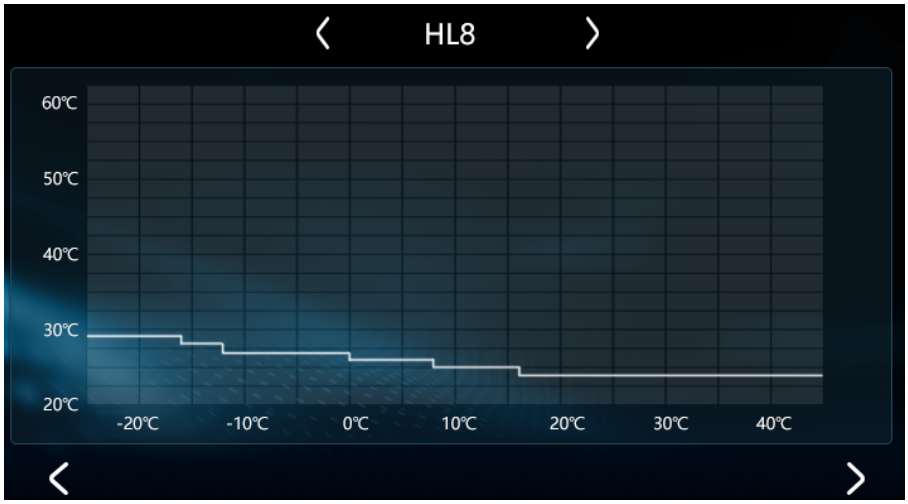


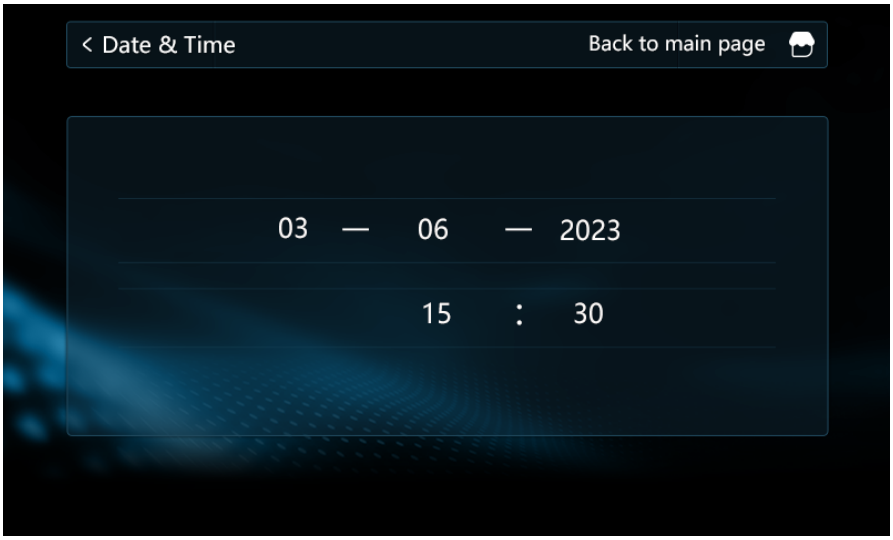


2.6 Setting button

In the main interface when the screen is on, touch “ ” to enter setting page.

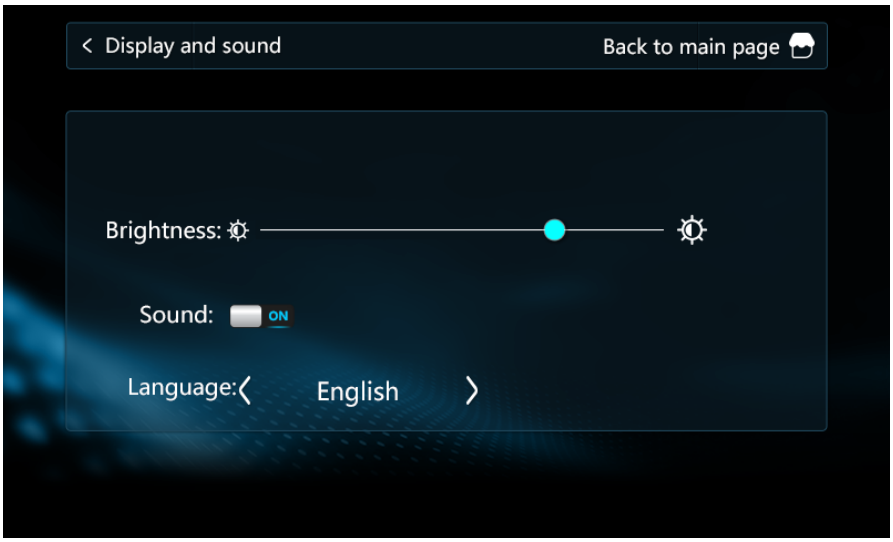
1. Time setting:

In setting page, touch “Date & Time” to enter time setting page. Touch Day-Month-Year-Time and slide the wheel value and press "√" to save the setting.



2. Brightness and sound settings

In setting page, touch “Display and sound” to enter the brightness and sound setting interface. Drag the slider to set different brightness, click "OFF/ON" to "turn off/on" the sound, press "<" ">" to switch between different languages.

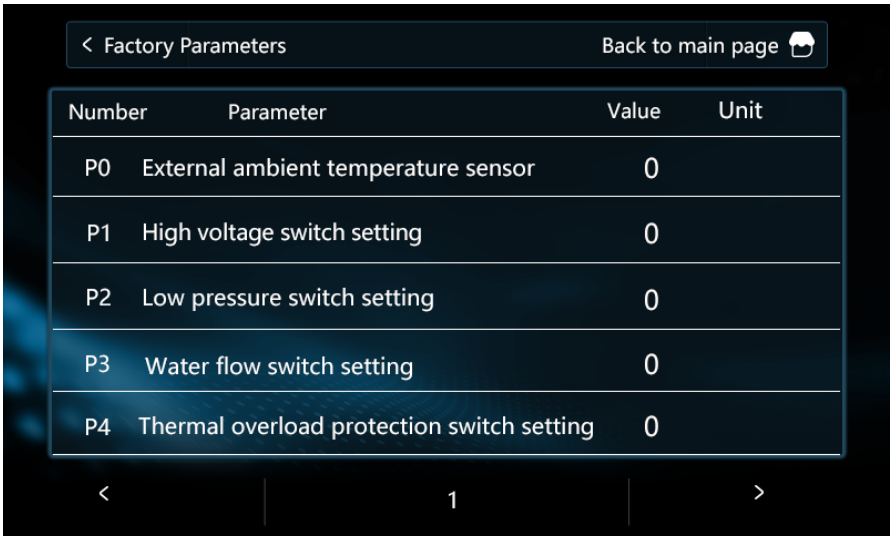


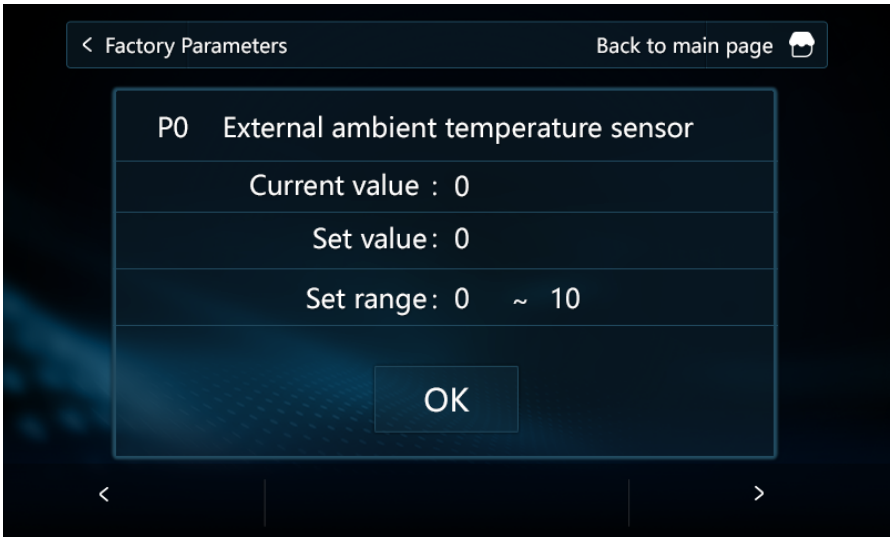
3. Temperature setting

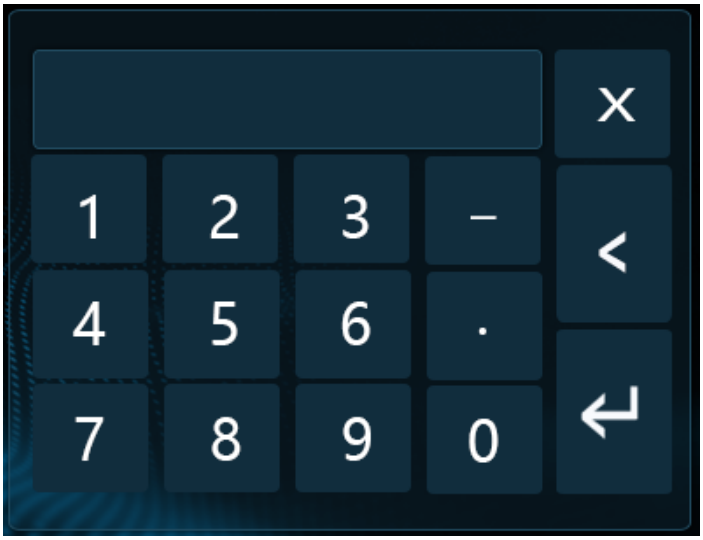
This feature is not available yet.

4. Factory parameter setting

In setting page, touch “Factory Parameters”and touch “Enter” in the pop-up keyboard to enter the parameters setting page. At this point, you can press "<" ">" to check the value of each parameter. Click the parameter value on the right to enter the parameter value modification page. Click the parameter value on the right of “Set value”, enter the setting value in the pop-up keyboard, press "Enter" to confirm, and then click "OK" to complete the setting. On the parameter modification page, you can press "<" ">" to switch parameters directly.



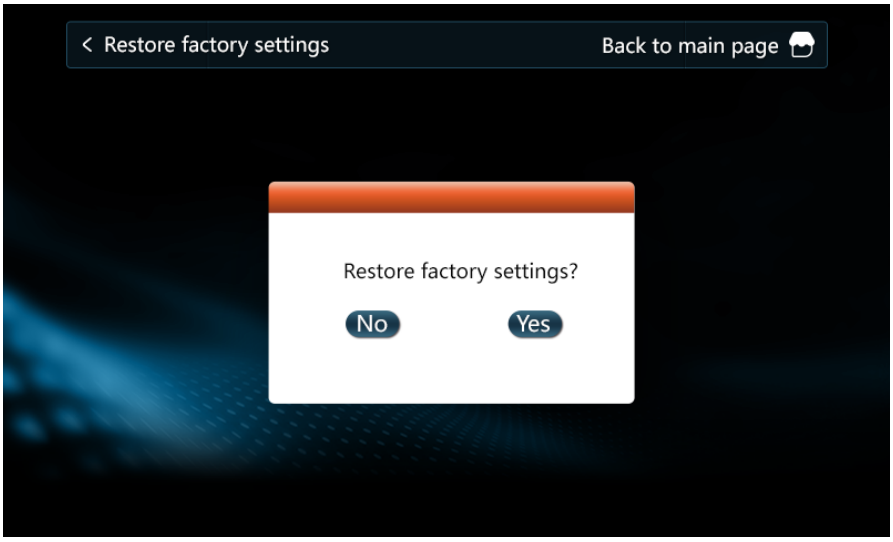




When more than one unit is connected, in the setting page touch “Factory Parameters”to select unit number. Touch the corresponding unit number to enter the parameter setting. The grey slot means that unit is not connected.

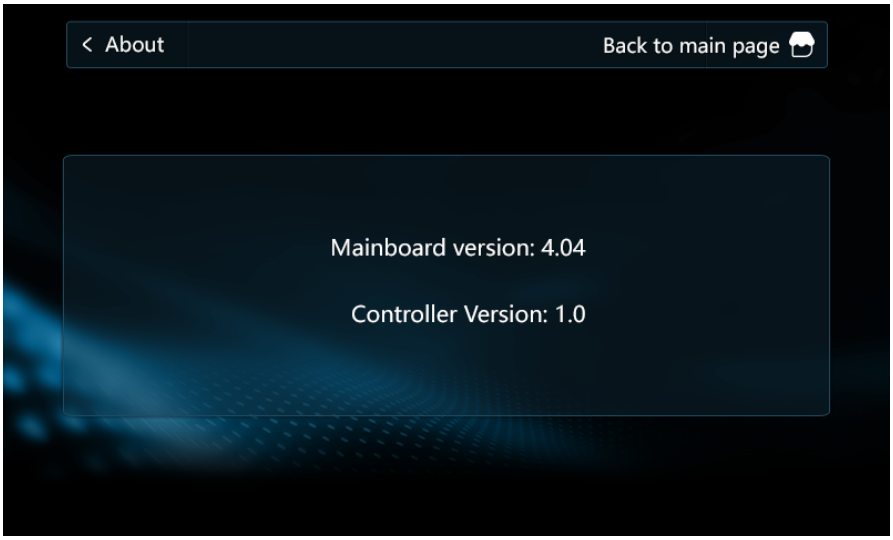
5. Reset

In setting page, touch “Restore factory settings” to enter the page of reseting to factory setting. Touch “No/Yes” to select “cancel/confirm” to reset to the factory setting.



6. Program version query

In setting page, touch “About”to check the version number of the motherboard and wire controller.



Running state parameter table

Code	Parameters	Display range
1	Compressor operating frequency	0～150Hz
2	Fan running frequency/speed	0～999Hz
3	Electronic expansion valve steps	0～480P
4	EVI valve steps	0～480P
5	AC input voltage	0～500V
6	AC input current	0～50.0A
7	Compressor phase current	0～50.0A
8	Compressor IPM temperature AC input current	-40～140°C
9	High pressure saturation temperature	-50～200°C
10	Low pressure saturation temperature	-50～200°C
11	External ambient temperature T1	-40～140°C
12	Outer coil temperature T2	-40～140°C
13	Inner coil temperature T3	-40～140°C
14	Return air temperature T4	-40～140°C
15	Exhaust temperature T5	0～150°C
16	Return water temperature T6	-40～140°C
17	Discharge temperature T7	-40～140°C
18	Economizer inlet pipe temperature T8	-40～140°C
19	Economizer outlet pipe temperature T9	-40～140°C
20	Unit Tooling Number	0～120
21	Water tank temperature	-40～140°C
22	Fluorine circuit plate heat exchange out temperature	-40～140°C

23	Driver manufacturer	0～10
24	Water pump speed PWM	0～100%
25	Water flow rate	0～100L/min
26	User return water temperature	-40～140°C
51	Hot Water heat source temperature	-40～140°C
52	Heating heat source temperature	-40～140°C
53	Heating water tank temperature	-40～140°C
54	All outlet water temperature	-40～140°C

Factory setting parameter table

NO.	Parameters	Range
P00	External ambient temperature sensor T1	0～1
P01	High voltage switch setting	0～1
P02	Low pressure switch setting	0～1
P03	Water flow switch setting	0～1
P04	Thermal overload protection switch setting	0～1
P05	Linkage switch setting	0～2
P06	Fan type setting	0～1
P07	High voltage protection lockout setting	0～1
P08	Low pressure protection lockout setting	0～1
P09	Exhaust protection lockout setting	0～1
P10	Water flow switch protection lockout setting	0～1
P11	High voltage protection value	40～70
P12	High-voltage frequency limit value	40～70
P13	Low-voltage protection value	-50～-10
P14	Low voltage frequency limit value	-50～-10
P15	Exhaust temperature protection value	100～120
P16	Exhaust temperature frequency limit value	90～120
P17	Cooling fan speed up value	0～60
P18	Cooling fan speed down value	0～60
P19	Heating fan speed down value	0～60
P20	Heating fan speed up value	0～60
P21	Unit forbidden to start low temperature value (host)	-40～-10
P22	Electric heating start ambient temperature (host)	-15～40
P23	Inlet and outlet water temperature difference excessive value (host machine)	10～30

P24	Return water temperature compensation value (host)	-10～10°C
P25	Outlet water temperature compensation value (host)	-10～10°C
P26	Air conditioning return difference value (host)	0～10°C
P27	Floor heating return difference value (host)	0～10°C
P28	Pump control when reaching temperature shutdown (host)	0～1
P29	Anti-freeze pump running time (every 10min)	0～10min
P30	Defrost mode selection	0～2
P31	Enter defrost cumulative run time threshold	0～120
P32	Enter defrost coil temperature value	-30～0
P33	Enter defrost temperature difference 1	0～20
P34	Enter defrost temperature difference 2	0～20
P35	Maximum defrost time	0～30
P36	Exit defrost coil temperature	0～30
P37	Temperature stop mode	0～2
P38	Heating main valve initial opening constant	-999～999
P39	Pressure sensor setting	0～1
P40	Refrigeration target superheat correction value	-5～10
P41	Heating high pressure protection and frequency limit correction value	-10～10
P42	Heating target superheat correction value	-5～10
P43	Medium pressure switch setting	0/1
P44	Water flow switch failure detection setting	0/1
P45	Communication address code	1～16
P46	Return difference of liquid injection solenoid valve opening	0～15
P47	EVI target superheat constant	0～12
P48	Tank temperature probe enabled or not	0～1
P49	Hot water frequency running percentage	30%～100%
P50	Refrigeration target frequency constants A,Y=9X/5+A	-100～100
P51	Refrigeration minimum frequency limit	15-60Hz
P52	Refrigeration target frequency upper limit	40-120Hz
P53	Refrigeration target frequency lower limit	15Hz-P52
P54	Heating target frequency constant B,Y=B-X	-100～100
P55	Heating target frequency upper limit	50-120Hz
P56	Heating target frequency lower limit	20Hz-P55
P57	Heating minimum frequency1	15-60Hz
P58	Heating minimum frequency2	15-60Hz
P59	Heating minimum frequency3	15-60Hz

P60	Hot water target frequency constants B,Y=B-X	-100～100
P61	Hot water target frequency upper limit	50-120Hz
P62	Hot water target frequency lower limit	15Hz-P61
P63	Hot water minimum frequency 1	15-60Hz
P64	Hot water minimum frequency 2	15-60Hz
P65	Hot water minimum frequency 3	15-60Hz
P66	DC fan initial frequency	20-60Hz
P67	DC fan machine heating minimum frequency	20-60Hz
P68	DC blower heating max frequency	20-60Hz
P69	DC fan cooling minimum frequency	20-60Hz
P70	DC fan cooling maximum frequency	20-60Hz
P71	Turn on enthalpy control frequency	20-80Hz
P72	Stop enthalpy frequency	20-80Hz
P73	Refrigeration main valve initial opening 1	20～480
P74	Refrigeration main valve initial opening 2	20～480
P75	Refrigeration main valve initial opening 3	20～480
P76	Refrigeration main valve minimum opening	0～300
P77	Heating main valve minimum opening	0～300
P78	Main valve maximum opening	100～500
P79	Main valve initial opening constant c	50～300
P80	Main valve initial opening coefficient a	-999～999
P81	Main valve initial opening coefficient b	-999～999
P82	Max. opening of auxiliary valve	100～500
P83	Minimum opening of auxiliary valve	50～300
P84	Main valve adjustment period	10-120
P85	Initial opening constant of auxiliary valve c	-200～900
P86	Initial opening coefficient of auxiliary valve a	-999～999
P87	Initial opening coefficient of auxiliary valve b	-999～999
P88	Quiet mode compressor frequency	20-70Hz
P89	Quiet mode fan frequency	20-60Hz
P90	Enthalpy increase into the ambient temperature	0-45
P91	Prohibition of enthalpy entry time	0-30
P92	Enthalpy entry temperature difference	0-60
P93	Enthalpy entering press continuous operation time	0-20
P94	Auxiliary valve adjustment cycle	10-120
P95	Group network pump operation mode	0-1
P96	Hot water return difference value (host)	0～10℃
P97	Water tank temperature automatic compensation (host)	0～1

P98	Water tank temperature manual compensation value (host)	-10～10°C
P99	Water pump speed regulation temperature difference	2～10°C
P100	PWM pump minimum speed	20～80%
P101	Water pump control mode (host)	0～1
P102	Four-way valve control mode	0～1
P103	Mode switching minimum running time	0～10min
P104	Operating frequency percentage at mode switching	20-100%
P105	Cooling mode running loop temperature limit (host)	10～60°C
P106	Heating mode running ring temperature limit (host)	10～60°C
P107	Hot water mode operation ring temperature limit value (host)	10～60°C
P108	Hot water set temperature upper limit value (host)	30～80°C
P109	Hot water set temperature lower limit value (host)	10～30°C
P110	Heating setting temperature upper limit (host)	30～60°C
P111	Heating setting temperature lower limit (host)	15～30°C
P112	Refrigeration setting temperature upper limit (host)	20～40°C
P113	Refrigeration setting temperature lower limit value (host)	5～20°C
P114	Number of pressesors to choose	1～2°C
P115	Machine type selection (host)	0～5
P116	Unit temperature control mode (host)	0～1
P117	Anti-freeze entry ring temperature	0～10°C
P118	Anti-freeze entry outlet water temperature	0～20°C
P119	Refrigerant type	0～20
P120	Low temperature start limit	0～1
P121	Heating frequency shield 1 section low value	0-120
P122	Heating frequency shield 1 high	
P123	Heating frequency shield 2 low	
P124	Heating frequency shield 2 high	
P125	Heating frequency shield 3 low	
P126	Heating frequency shield 3 segment high value	
P127	Refrigeration frequency shield 1 segment low value	
P128	Refrigeration frequency shield 1 segment high value	
P129	Refrigeration frequency shield 2 low	

P130	Refrigeration frequency shielding 2-segment high value	
P131	Refrigeration frequency shield 3-segment low value	
P132	Refrigeration frequency shield 3-segment high value	
P133	Fan module	0～1
P134	Water flow rate too low protection value	0～100
P135	Anti-condensation start temperature difference	0～50
P136	Throttle bypass valve opening loop temperature	-20～50
P137	Throttle bypass valve delay press	0～999
P138	Defrosting press frequency	40～120
P139	Air conditioning electric heating options	0/1
P140	Hot water electric heating options	
P141	Frost dew point duration	0～60
P142	Frosting dew point constant	
P143	Frost accessible water temperature	
P144	Frost-accessible ring temperature	-20～30
P145	Frost protection value of water outlet	-30～10
P146	Water pump range setting value	0～100
P147	Refrigeration anti-freeze mode	2000/1/2
P148	Refrigeration anti-freeze temperature value	-40
P149	Water out of the high limit frequency value	40-80
P150	Secondary heating pump selection	2
P151	Hot water heat source return difference	0
P152	Heating heat source return difference	0
P153	Combined hot water heat source upper temperature limit	70
P154	Combined heating heat source upper temperature limit	60
P155	Commressor code	0
P156	Auxiliary electrronic expansion value selection	0
P157	Auxiliary electrronic expansion value to redyce the temperature difference	0
P158	Heating limit water temperature,start the ambient temperature	−15
P159	Limit temperature constant P159	68
P160	Limit temperature coefficient P160	14
P161	Auxiliary pump selection	0
P162	Anti-freezing interval for hot water pipes	90
P163	Minimum feedback of pump speed regulation	30
P164	Level control	3

P165	Load Load return difference	3
P166	L Lightening back to the poor	2
P167	Stop back to the poor	3
P168	Hot water mode start ratio	50
P169	Non-hot water mode start ratio	100
P170	Loading cycle	7
P171	Shield low voltage switch ring temperature	−30

Fault Code Table

E01	Wrong phase fault
E02	Out of phase fault
E03	Water flow switch fault
E04	Main board and 4G module communication fault
E05	High pressure switch protection
E06	Low pressure switch protection
E09	Line controller and motherboard communication failure
E11	Time limit protection
E12	Exhaust gas temperature too high fault
E14	Hot water tank temperature failure
E15	Water inlet temperature sensor failure
E16	Coil sensor failure
E18	Exhaust gas sensor failure
E21	Environmental sensor failure
E22	User return water sensor failure
E23	Cooling subcooling protection
E24	Plate heat exchanger out temperature fault
E26	Plate heat exchanger for anti-freeze sensor failure
E27	Out of the water sensor failure
E29	Return gas sensor failure
E33	High pressure sensor failure
E34	Low pressure sensor failure
E37	Inlet and outlet water temperature difference is too large protection
E38	DC fan 1 failure
E39	DC fan 2 failure
E42	Cooling Coil Sensor 1 failure
E47	Economizer inlet sensor failure
E49	Economizer outlet sensor failure
E51	High pressure over high protection
E52	Low pressure over low protection
E55	Expansion board communication failure
E80	Power supply error
E94	Water pump feedback failure
E96	Press 1 driver and main control board communication abnormal

E98	Fan 1 driver and main control board communication abnormal
E99	Fan 2 driver and main control board communication abnormal
EA0	Plate heat exchanger temperature failure
EA1	Network model error
EA2	Hot water heat source sensor failure
EA3	Heating heat source sensor failure
EA4	Heating water tank sensor failure
EA5	Total out of the water sensor failure

E88/E89	P1	IPM overcurrent/IPM module protection
	P2	Compressor drive failure
	P3	Bit0:Compressor overcurrent alarm
	P4	Input voltage out of phase
	P5	IPM current sampling failure
	P6	Power component overheating shutdown.
	P7	Pre-charge failure
	P8	DC bus over-voltage
	P9	DC bus undervoltage
	P10	AC input undervoltage
	P11	AC input overcurrent
	P12	Input voltage sampling fault
	P13	DSP and PFC communication fault
	P14	Heat sink temperature sensor failure
	P15	Communication failure between DSP and communication board
	P16	Abnormal communication with main control board
	P17	Compressor over current alarm
	P18	Compressor weak magnetic protection alarm
	P19	PIM overheat alarm
	P20	PFC overheat alarm
	P21	AC input overcurrent alarm
	P22	EEPROM failure alarm
	P24	EEPROM refresh completed
	P25	Temperature sensing fault frequency limit.

	P26	AC undervoltage frequency limit protection alarm
	P33	IPM module overheating shutdown
	P34	Compressor out of phase
	P35	Compressor overload
	P36	Input current sampling fault
	P37	PIM supply voltage failure
	P38	Precharge circuit voltage failure
	P39	EEPROM fault
	P40	AC input overvoltage fault
	P41	Microelectronics fault
	P42	Compressor type code fault
	P43	Current sampling signal overcurrent