S&A™

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- Precise temperature
- CE approval
- Easy installation and operation
- High efficiency and energy saving

CW-5000 | 5200 Series

系列工业冷水机

INDUSTRIAL REFRIGERATION CHILLER

使用说明

USER MANUAL

Thank you for using the machine from GUANGZHOU TEYU ELECTROMECHANICAL CO., LTD. Please read the installation instructions carefully before installing and operating and keep it properly.

This installation instructions is not a quality assurance. GUANGZHOU TEYU ELECTROMECHANICAL CO.,LTD. reserves the right to the interpretation of correction of typographical errors, improper mentioned information and product improvement.

The amended content will be reprinted in installation instructions without notice in advance.

CAUTION

1 Please ensure that the power supply and electrical outlet are in good contact and the earth wire must be firmly grounded!

Although the average operating current of the chiller is small, but the instantaneous operating current could be up to 6 ~ 10amps sometimes (The instantaneous operating current of models of AC110V power supply arepossible to be up to 10 ~ 15amps).

2 Please make sure there is a stable and normal voltage for the working chiller!

As the refrigeration compressor is more sensitive to the power supply and voltage, so the operating voltage of our standard product is of 200 ~ 250V (110V model is of 100 ~130V). If you do need a wider operating voltage range, customization is available for us.

3 To protect the pump, it's strictly forbidden to run the chiller without having water in the storage water tank!

The new machine is packed after draining whole water in the tank, so please make sure the tank has water inside before machine starting, otherwise it's easily to have the pump damaged. When the water level is below the green (NORMAL) range of the water level gauge, the cooling capacity of our chiller will go down slightly. Hence please ensure the water level is within the green (NORMAL) range. To drain through circulating pump is strictly prohibited!

4 Please be sure that the air inlet and air outlet are in good ventilation!

There must be at least 30cm from obstructions to the air outlet which is in the back of the cooler, and should leave at least 8cm between obstructions and the side air inlet.

5 The filter screen must be regularly cleaned!

It's essential to unpick and wash the dust gauze, or the serious blockage will cause breakdown to the chiller.

6 Please pay attention to the effect of the condensate water!

With greater ambient humidity, when the water temperature is lower than the ambient temperature, the condensate water will generate on the surface of water circular pipes and the cooled components. If above circumstance appears, it is recommended to set a higher water temperature or keep pipes and cooled parts warm.

CAUTION: the appliance is not to be used by children or persons with reduced physical, sensory or metal capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction, children being supervised not to play with the appliance!

Operation status and parameters adjustment

Under normal circumstance, the new intelligent temperature controller does not need to adjust the controlling parameters. It will self-adjust controlling parameters according to room temperature, guaranteeing to meet cooling requirements for machines.

1.Temperature controller panel description

(1) Indicators D1, D2 (as shown) of thermostat working state

D1	ON: thermostat works in intelligent control mode; OFF: thermostat works in constant temperature control mode; FLASHES: thermostat works in parameters setting mode or displays value of room temperature;
D2	ON: chiller works in refrigerating state; OFF: chiller works in the insulation working state; FLASHES: chiller works in the energy-saving state;

(2) Press ▼ button will show the room temperature, 6 seconds later to display the restore defaults. (Meanwhile, D1 is flashing, displaying room temperature.)

(3) ▲▼ keys are for adjusting the display status of the controller, parameters selection and adjustment.

(4) RST key: enter key.

(5) SET key: function setting key.

2. Restore to factory settings

Before machine startup, please press and hold ▲▼ button until the controller displays rE, 6 seconds later after releasing the button, the controller works in normal order. Then all parameters settings of the controller have been restored to factory settings.

3. Alarm function

(1) Alarm Display:

E1	E2	E3	E4	E5
Over high room temperature	Over high water temperature	Over low water temperature	Room temperature sensor failure	Water temperature sensor failure

When alarm occurs, the error code and the temperature will be alternately displayed.

(2) To suspend the alarm:

In alarming state, the alarm sound could be suspended by pressing any button, but the alarm display remains until the alarm condition is eliminated.

4. Thermostat parameters list

Order	Code	Project Settings	Range	Factory Settings	Notes
1	F0	Temperature setting	F9~ F8	25	Constant temperature control effecting
2	F1	Temperature difference values	-15~+5	-2	Intelligent control effecting
3	F2	Cooling hysteresis	0.1~3.0	0.8	
4	F3	Way of control	0~1	1	1: intelligent 0: constant temperature
5	F4	Alarm for over high water temperature	1~20	10	
6	F5	Alarm for over low water temperature	1~20	15	
7	F6	Alarm for over high room temperature	40~50	45	
8	F7	Password	00~99	08	
9	F8	The allowed highest water temperature	F0~40	30	
10	F9	The allowed lowest water temperature	1 ~F0	20	

5. General settings adjustment

Press SET button (SET) to enter into the user-defined state. Meanwhile, D1 flashes to indicate that the controller is in parameters setup status.

(1) Under intelligent mode, the control panel displays the temperature difference value between water and air (F1).

(2) Under constant temperature mode, the control panel displays the set temperature value (F0). At this moment, press ▲▼ key to change settings. After modifying the value, press the ENTER button (RST) to save and exit, then new parameters take effect, or press SET key (SET) to exit without saving parameters. If there is no more action within 20seconds, it will automatically exit modifying status without saving parameters.

6. Advanced settings adjustment

(1) Press and hold the ▲ key while press SET button (SET) for 5 seconds until 00 displayed. Then press ▲▼ button to select the password which had been set before, and then click the SET button (SET) again, if the password is correct, F0 would be shown, entering the set status, D1 flashing to indicate that the controller is under parameters setup status. What if the password is incorrect, then the panel returns to temperature display.

(2) Enter setup state, press ▲ key to enter and select set items circularly, or press ▼ to go in contrary direction circulation. Select an item, click SET button (SET) to proceed next parameters modifying, original settings being displayed, then press ▲▼ key to modify parameter values, and press SET button (SET) to return to the previous setup menu. Press ENTER button (RST) at any time to exit parameters setup with saving modified parameters and return to temperature display, then the chiller runs under the new parameters. If no button is pressed within 20 seconds, the controller will automatically exit parameters setup without saving the modified parameters.

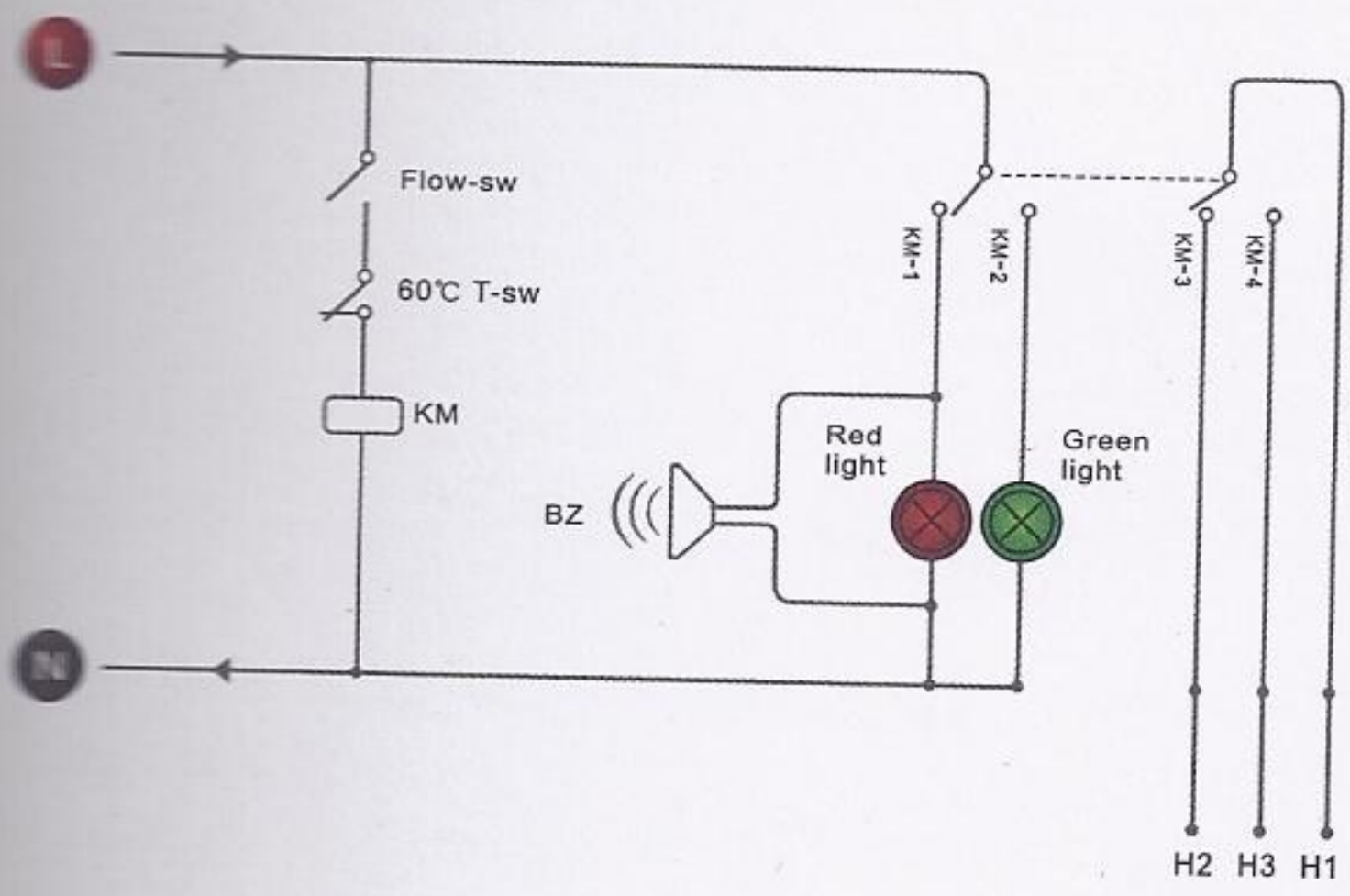
Note:

1. During parameters setting condition, system still runs under original parameters;
2. Under temperature control mode, the water temperature is controlled by (F0) parameters;
3. Under intelligent control mode, the water temperature will be automatically adjusted according to temperature changes. The temperature difference is commanded by (F1) parameter.

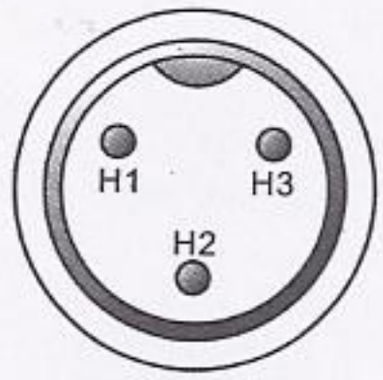
Flow alarm and output ports

In order to guarantee the equipment will not be damaged while cooling water circulation is out of control, CW-5000series chillers possesses an unique low flow alarm protection.

1. Flow alarm output ports and the wiring diagram



Alarm output



Output port diagram

2. Flow alarm causes of circulating cooling water and working state

CONDITION \ DISPLAY	Normal flow indicator	Flow alarm indicator	BUZZER	OUT H1、H2	OUT H1、H3
Circulating pump works properly	On	Off	No voice	Off	On
Blocked cooling water circulation loop	Off	On	Voice	On	Off
Alarm of water shortage	Off	On	Voice	On	Off
Faulted circulating pump	Off	On	Voice	On	Off
Power interruption				On	Off

Note: The flow alarm is connected to the normally open relay and normally closed relay contacts, requiring operating current less than 5A, working voltage less than 300V.

SPECIFICATIONS

CW-5000 PARAMETERS

MODEL	CW-5000AG	CW-5000BG	CW-5000DG	CW-5000AK	CW-5000BK	CW-5000DK
Voltages	AC220~240V	AC208~230V	AC100~110V	AC220~240V	AC208~230V	AC100~110V
Frequency	50Hz	60Hz	50/60Hz	50Hz	60Hz	50/60Hz
Current	1.4~2.1A		3.5~5.6A	1.4~2.1A		3.5~5.6A
Cooling capacity	2361Btu/h	2999Btu/h	2866Btu/h	2361Btu/h	2999Btu/h	2866Btu/h
Refrigerant	R-134a					
Refrigerant weight	300g	320g	280g	300g	320g	280g
Water tank capacity	6L					
Outlet and inlet hold	Outside dimensions 10mm brass connector			Inside dimensions 8mm speedy connector		
Max pumping lift	10M			100M		
N.W	26Kg			29Kg		
G.W	31Kg			34Kg		
Dimensions	55*28 *43 cm(L * W* H)					
Packing dimensions	71* 41 * 62 cm(L *W *H)					

CW-5200 PARAMETERS

MODEL	CW-5200AG	CW-5200BG	CW-5200DG	CW-5200AK	CW-5200BK	CW-5200DK
Voltages	AC220~240V	AC208~230V	AC100~110V	AC220~240V	AC208~230V	AC100~110V
Frequency	50Hz	60Hz	60Hz	50Hz	60Hz	60Hz
Current	2.4~3.1A	2.6~3.3A	4.5~6.5A	2.4~3.1A	2.6~3.3A	4.5~6.5A
Cooling capacity	5084Btu/h	6295Btu/h	5186Btu/h	5084Btu/h	6295Btu/h	5186Btu/h
Refrigerant	R-22					
Refrigerant weight	360g	380g	350g	360g	380g	350g
Water tank capacity	6L					
Outlet and inlet hold	Brass connector of 10mm outside dimensions			Speedy connector of 8mm inside dimensions		
Max pumping lift	10M			100M		
N.W	30Kg			23Kg		
G.W	35Kg			38Kg		
Dimensions	55*28 *43 cm(L * W* H)					
Packing dimensions	71* 41 * 62 cm(L *W *H)					

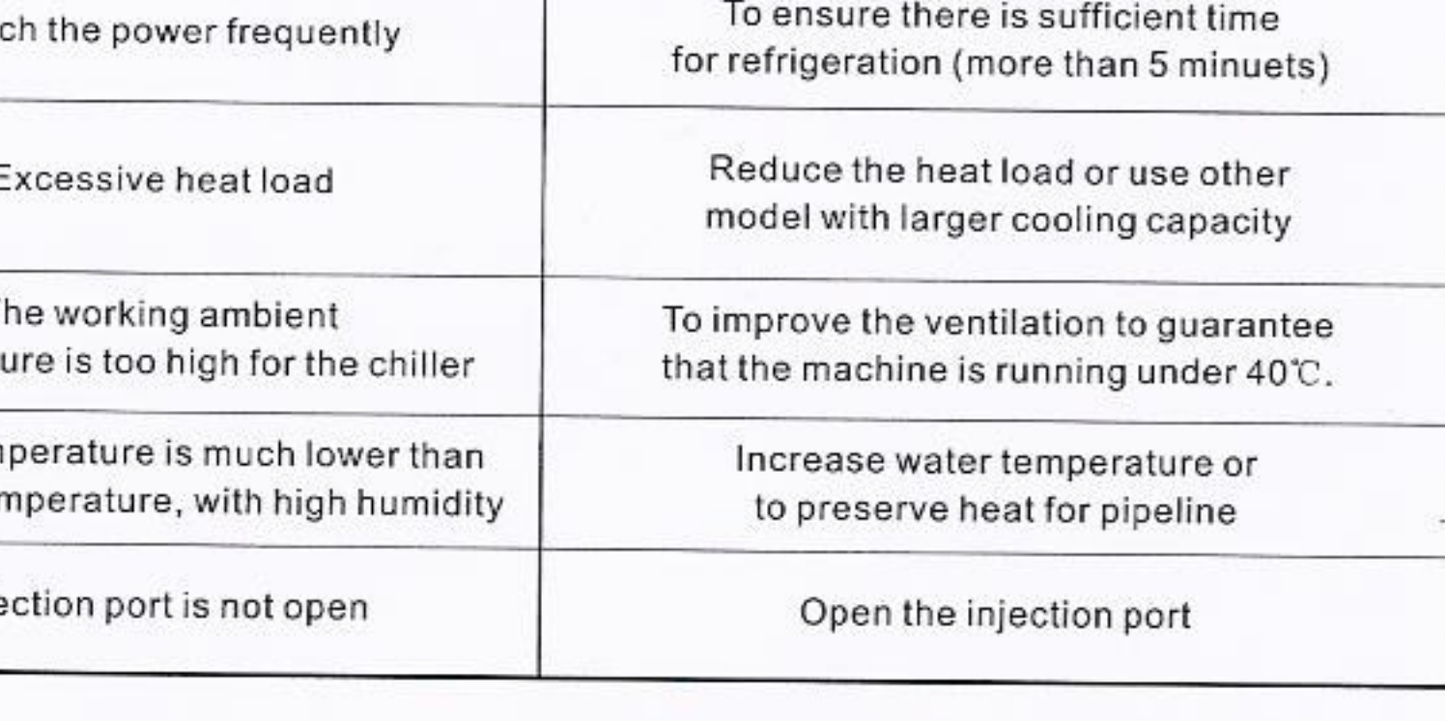
SIMPIE TROUBLESHOOTING

FAILURE	FAULT CAUSE	APPROACH
Machine turned on but unelectrified	Power cord is not plugged in place	Check and ensure the power interface and the power plug is plugged in place and in good contact.
	Fuse burnt-out	Pull out the fuse box from the power supply interface of the chiller, check the fuse, replace with spare fuse if necessary and check whether the power supply voltage is stable; Check and ensure the power interface and the power plug is plugged in place and in good contact.
Flow Alarm (panel red light is on)use a water pipe directly connect to the water outlet and inlet but still without water flowing	Water level in the storage water tank is too low	Check the water level gauge display, add water until the level shown in the green area; And check whether water circulation pipe leaks.
	Water circulation pipes are blocked or a pipe bending deformation.	Check water circulation pipe
Ultra-high temperature alarm	Blocked dust gauze, bad thermolysis	Unpick and wash the dust gauze regularly
	Poor ventilation for air outlet and inlet	To ensure a smooth ventilation for air outlet and inlet
	Voltage is extremely low or astable	To improve the power supply circuit or use a voltage regulator
	Improper parameter settings on thermostat	To reset controlling parameters or restore factory settings
	Switch the power frequently	To ensure there is sufficient time for refrigeration (more than 5 minuets)
	Excessive heat load	Reduce the heat load or use other model with larger cooling capacity
Alarm for ultra-high room temperature	The working ambient temperature is too high for the chiller	To improve the ventilation to guarantee that the machine is running under 40℃.
Serious problem of condensate water	Water temperature is much lower than ambient temperature, with high humidity	Increase water temperature or to preserve heat for pipeline
Water drains slowly from outfall during water changing	Injection port is not open	Open the injection port

PACKING LIST

1. Machine 1pc
2. User manual 1pc.
3. Power cord 1pc.
4. Connection hose 1pc.
5. Sealed hoop 2pcs.
6. An alarm signal output plug.
7. Spare fuse for 250V/2A 1pc.

(Held in the spare fuseholder of power socket.)



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