Specification

Compact Liquid Chiller

Model: XB075Z-12

1.Specification

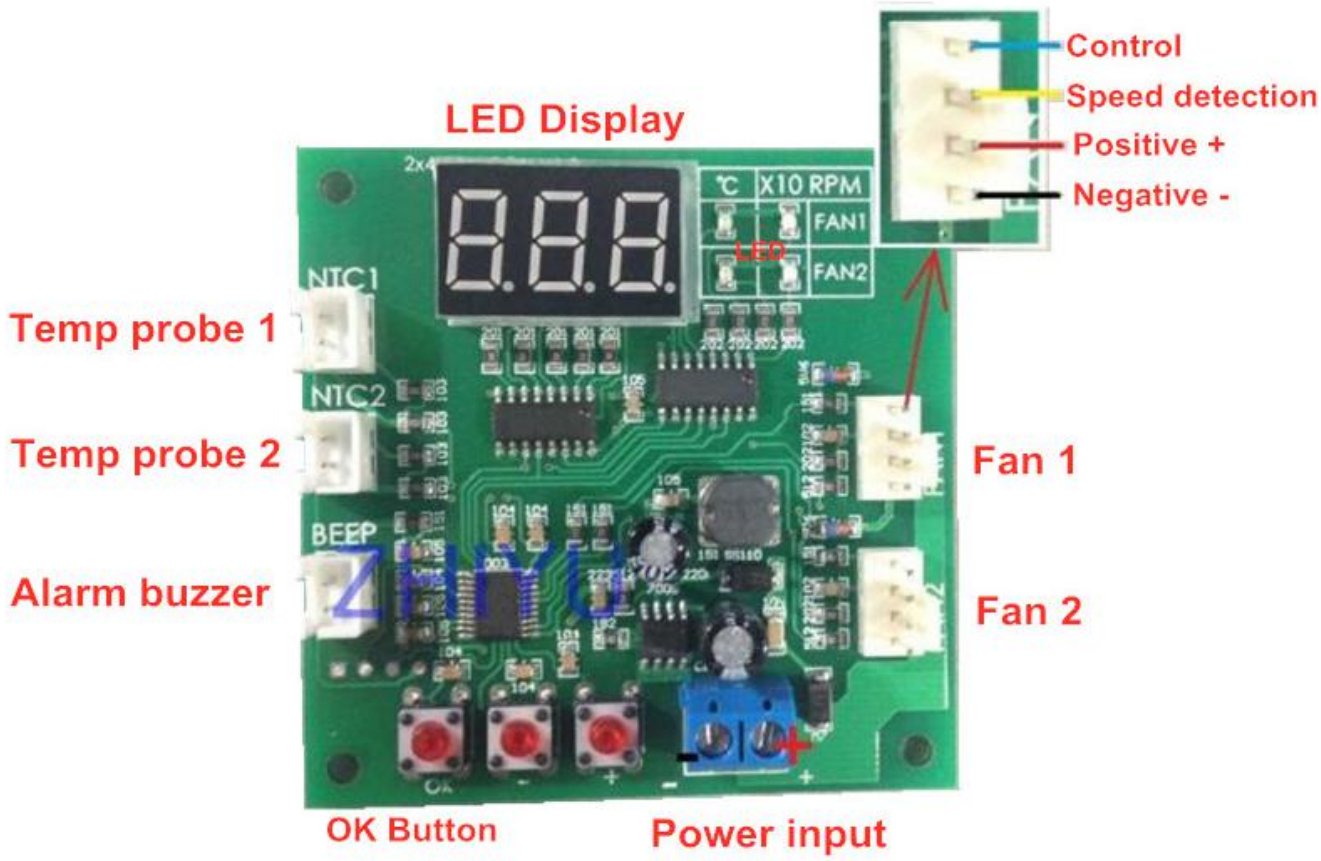
Product	12V DC Liquid Chiller
Model Name	XB075Z-12
DC Compressor Model	XB075Z12 1EN
Application	Liquid Cooling 1L ~ 10 L
Cooling Capacity	800W
Power Supply	260W
Refrigerant	R134a
Rated Voltage	12V DC
Working Current	25 A
Compressor Speed Range	2500-4500rpm
Factory Default Compressor Speed	3000-3500rpm
Fan Voltage	12V DC
Fan Speed	800-2400rpm
External Dimension (LxWxH)	420 x 310 x 240mm
Evaporating Temperature	10℃~15℃
Noise	48↓dB(A)
Vibration	≤0.65 m/s2
N.W	28.6lbs/13.0 Kgs
Drive Board	Variable Frequency Controller

Note: In actual operation, cooling capacity and compressor power will be varied with evaporation temperature (Te) and condensation temperature (Tc).

The lower the evaporation temperature and the higher the condensation temperature, the lower the cooling capacity and the higher the compressor power.

2. Fan Controller

Picture:



-Operating voltage:DC 8-60V

-Actual fan voltage:12V DC

-Operating current:Control board operating current 22mA (12V)

-Temperature probe specification:NTC 10K B=3950

-Range of temperature control:

♦Accelerating temperature(L):5-94℃

♦Full speed temperature(H): 10-99℃

-Speed measurement: 10-9990 rpm, above this speed, it will always display 999, resolution 10 rpm, display unit *10 rpm

Display Descriptions:

♦The control board displays the values through the digital tube, the four LEDs on the right side of the digital tube indicate the meaning of the current values of the digital tube, the first two LEDs in the first line are the temperature and speed of channel one (x10rpm), the two LEDs in the second line represent the temperature and speed of channel two (x10rpm). Under normal working condition, the four values will be displayed in sequence, you can press the "+" "-" button at any time to manually switch the values quickly, after the manual switch will stay under this value for a longer time and then enter the rotation state. The display of channel two can be blocked as needed.

Setting Descriptions:

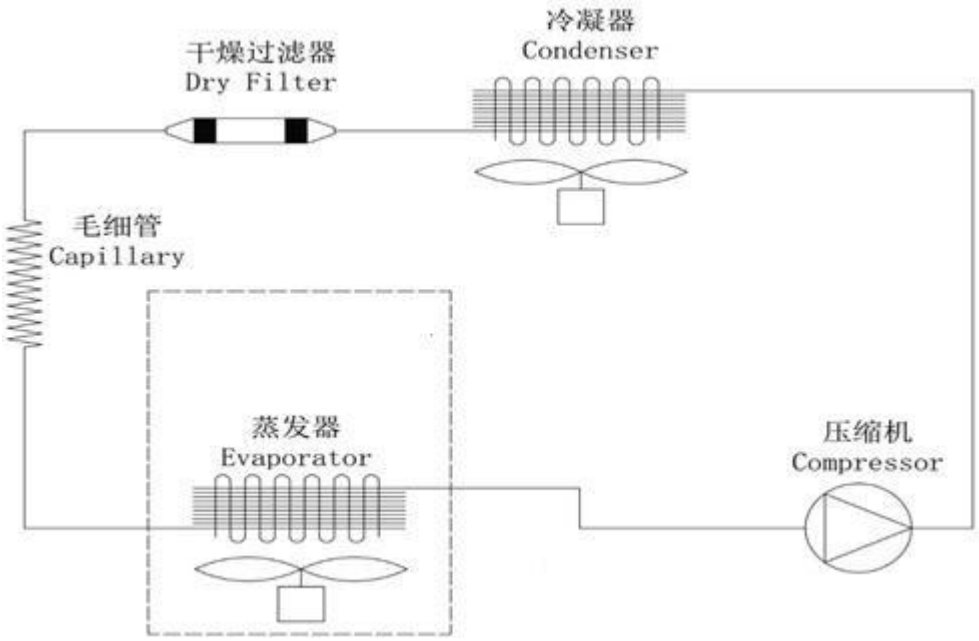
♦Basic speed setting: The basic speed setting is used to adjust the fan speed before the temperature control starts, that is, the fan speed when the temperature is lower than the acceleration temperature. The setting method is to press the "OK" button in any running state. At this time, two LEDs in the horizontal direction of channel one light up at the same time, and the digital tube displays the current setting value (between 10-100). Set by "+" and "-" buttons, press and hold the button for quick successive changes, then press the "OK" button after setting to enter the basic speed setting of channel 2, use the same method to set and press the "OK" button again to save and exit .

Temperature Settings:

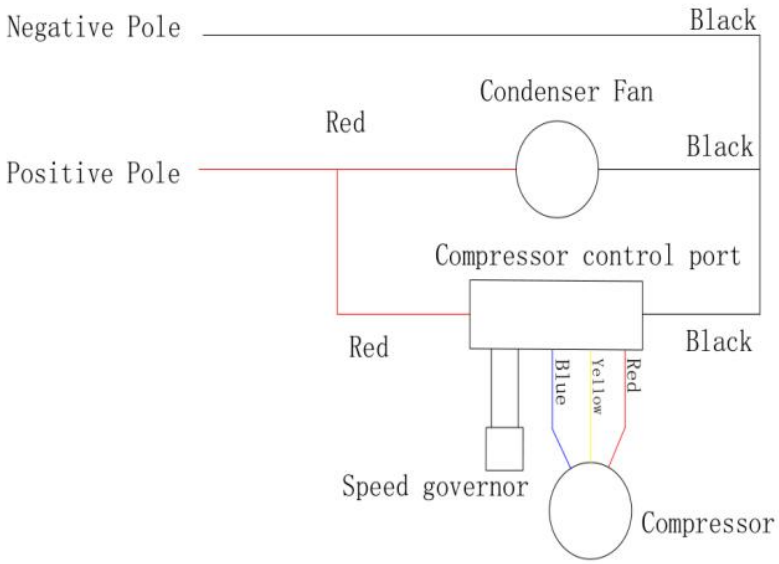
♦In normal operation, press and hold the "OK" button until L** is displayed (** is the value) and then release the button. The two LEDs in the horizontal direction of channel one light up at the same time, which means that the acceleration temperature of channel one is now in the set state. Press "+" or "-" button to set the value (range 5-94℃); After setting, press the "OK" button to enter the full speed temperature setting state of channel 1, and the display is "H**", Set the amount in the same way (range 10-99℃).

3.Circuit Diagram of Water Circulating Cooling System

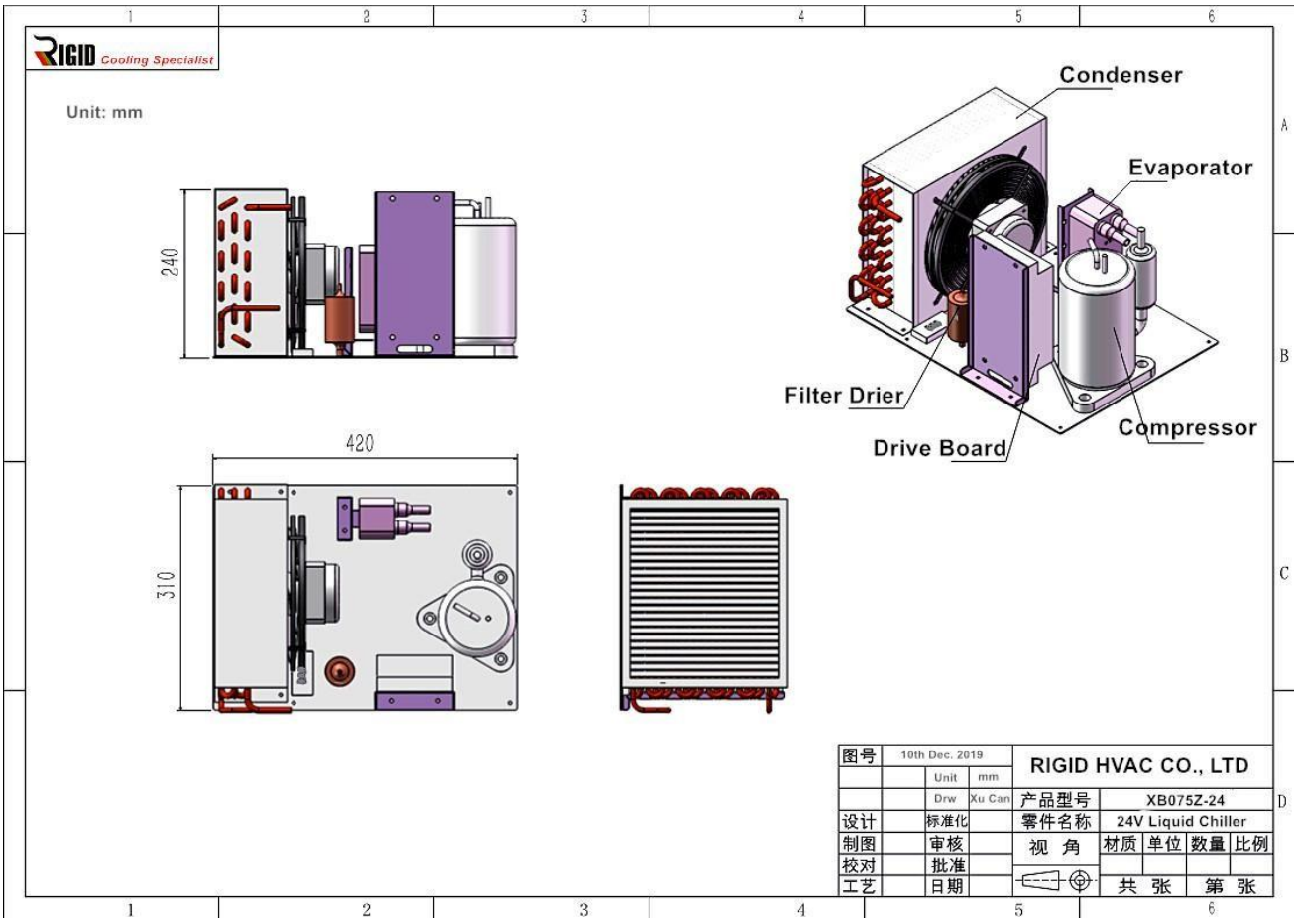
The diagram are just for reference only. We're able to customize according to users' demand for whole system optimization.



3. Wire Connection



4. External Dimension



5. Maintenance Inspection

Due to the existence of mechanical running parts and high and low pressure pipelines in the refrigeration unit, failure and wear will occur within a certain period of time, which requires regular inspection and maintenance.

Maintenance standards and Suggestions: the maintenance and inspection cycle cannot be generalized due to environmental factors and operation status, etc., so it is recommended to conduct inspection within 3 months and maintenance within 6 months.

Items		Maintenance & inspection
Compressor		Check if any no abnormal noise and vibration
Evaporator/Condenser	Motor	Check if work normally
	Fin	Clean dust regularly
Other Parts & Components		1. Whether the drying filter is blocked (the temperature has large difference before and after) 2. Whether there is deformation, leakage or abnormal vibration in the system pipeline 3. Whether the capillary is blocked (compressor discharge pressure is abnormally high)
System temperature and pressure		1. Whether the pressure state is normal or not 2. Whether the temperature state is normal or not
Electrical control unit	Drive Board	Replace in time when it is insensitive
	Wiring	Insulation and heat shrinkable tube aging
	Switch	Replace when it wear, tear and deformation
	Fan Motor	Replace in time when it works abnormal

6. Trouble Shooting

Troubles	Reasons	Solutions
Compressor Doesn't work	Power supply or electrical switch failure	Check & Replace
High-pressure Overload	Condenser fan stop or the fan speed is too slow	Check & Replace
	Condenser is clogged with dust	Sweep & cleaning
	Poor ventilation	Improve ventilation
Low-pressure too low	Capillaries or filter clogged	Check & Replace
	Refrigerant leaking	Check & Refill
Compressor abnormal	Motor failure	Replace compressor
	Lack of oil	Oil refill
Chiller not cooling / not heating	System blocking	Contact supplier

7. Attentions:

1. It is necessary to check out the reason of the fault before maintenance to avoid the same fault.

2. Refrigerant must be discharged before repairing the pipeline, nitrogen is needed to protect the welding, and the refrigerant should be refilled after cooling system vacuuming.

3. Refrigerant must be recycled and cannot be discharged directly into the atmosphere.

4. Parts and components should be replaced by using same brand and specification. Do not replace with other brands.

5. Performance test is needed after maintenance or repair.