

Industrial Chiller Manual

YZ-XXS Series ,Water cooled Industrial chiller technical parameter:

Model		YZ08S	YZ16S	YZ24S	YZ36S	YZ48S	YZ60S	YZ72S	YZ84S	YZ96S	YZ108S	YZ120S
Cooling capacity	kw	85	15	215	295	36	44	476	586	875	1127	1465
	Kcal/hr	730	1290	1880	2530	3100	3700	4100	5080	7500	10000	12300
Power Input (Kw)		28	43	71	86	105	141	149	177	247	331	425
Compressor type		Scroll type										
Power supply		380V/3ph/50HZ										
(Ambient temp)		≤40℃										
Refrigerant		R22(404A)										
Flow Control		Expansion valve / Capillary										
Cooling wate flow (m³/h)		1.9	3.2	4.5	6.2	7.8	9.2	9.8	12	17.8	24	29.3
Water flow rate (m³/h)		1.6	2.6	3.7	5.1	6.5	7.6	8.7	10	14.8	20.1	24.8
Pipe size		DN25	DN25	DN2	DN2	DN40	DN40	DN40	DN40	DN50	DN80	DN80
Evaporator type		Wate tank type/Shell and tube type										
Noise Lever	db(A)	≤50	≤60	≤60	≤60	≤60	≤60	≤60	≤60	≤60	≤60	≤60
Safekeeping		Lacks phase, leakage, Lacks the water, overload, Over voltage and Under voltage protection etc.										
Overall size	Length(mm)	910	1280	1450	1450	1450	1600	1600	1600	2100	2300	2300
	Width (mm)	710	710	850	850	850	850	850	850	1100	1200	1200
	Height (mm)	1100	1200	1320	1320	1320	1320	1320	1320	1210	1350	1350
Weight (Kg)		105	128	173	232	255	450	510	540	780	850	950

Dear user:

Thank you very much for buying our series products. In order to make In order to make good use of this machine's function and characteristic, please read this instruction carefully before setting and then keep it for future using. Please contact us, if you have any further questions. We would like to supply the highest-quality and fastest service to help you solve problems. The warranty period of this product is 1 year.

Customer service number: 0577-86717710 13758831108

Note: The above info. is based on condensing temperature 35℃, and evaporating temperature 5℃.

Pls understand that we will not be able to inform every user when the parameters are changed as the update of technology lasts.

The general ideas and structural features of this product:

Depending on many years technical experience and customer tracking survey, YZ serial equipments are produced by Yizong cooling & heating equipment company. YZ serial equipments enjoy stable-running, good-adaptation, high-energy efficiency, low-power consumption and convenient-cleaning and transportation. It is suitable for blister machine, injection machine, leather, chemical industries, electroplating industry, medical equipment, printing, moulds, aquaculture high-tech experiment, etc. It enjoys customer's trust by its superior performance.

The major products of company:

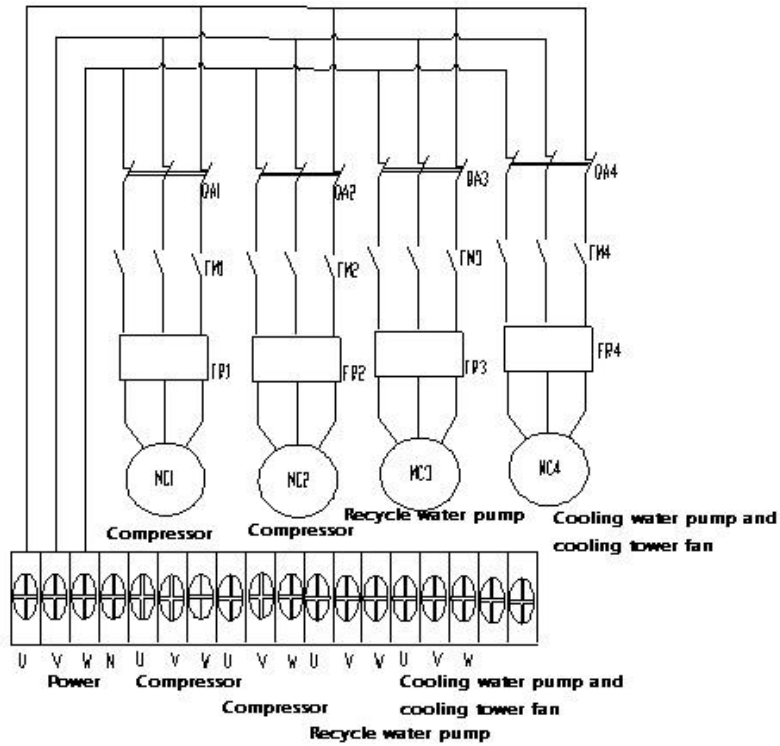
Industrial Chiller, Freeze Drier, Cooling Tower.

YZ-XXF Series ,Wind cooled Industrial chiller technical parameter:

Model	YZ-03F	YZ-05F	YZ-08F	YZ-10F	YZ-12F	YZ-15F	YZ-16F	YZ-20F	YZ-30F	YZ-40F	YZ-50F	
Cooling capacity	kw	8.5	15	21.5	29.5	36	44	47.6	58.6	87.5	112.7	146.5
	Kcal/Hr	7300	12930	18500	25500	31000	37900	41000	50500	75400	108000	123000
power Input (Kw)	2.8	4.3	7.1	8.6	10.5	14.1	14.9	17.7	24.7	33.1	42.5	
CompreFFor type	Feroll type											
Power Fupply	380V/3ph/50HZ											
(Ambient temp)	≤40℃											
Refrigerant	R22(404A)											
Flow Control	ExpanFion valve / Capillary											
Cooling wate flow (m³/h)	1.9	3.2	4.5	6.2	7.8	9.2	9.8	12	17.8	24	29.3	
water flow rate (m³/h)	1.6	2.6	3.7	5.1	6.5	7.6	8.7	10	14.8	20.1	24.8	
Pipe Fize	DN25	DN25	DN32	DN32	DN40	DN40	DN40	DN40	DN50	DN80	DN80	
Evaporator type	Wate tank type/Fhell and tube type											
NoiFe Lever	db(A)	≤50	≤60	≤60	≤60	≤60	≤60	≤60	≤60	≤60	≤60	≤60
Safekeeping	Lacks phase, leakage, Lacks the water, overload, Over voltage and Under voltage protection etc.											
Overall Fize	Length (mm)	910	1280	1350	1350	1450	1450	1600	1600	2100	2300	2300
	Width (mm)	710	710	850	850	850	850	850	850	1100	1200	1200
	Height (mm)	1200	1300	1450	1450	1420	1420	1420	1420	1310	1450	1450
Weight (Kg)	105	128	173	232	255	450	510	540	780	850	950	

Note: The above info. is based on condensing temperature 35℃, and evaporating temperature 5℃..

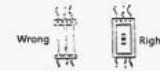
Pls understand that we will not be able to inform every user when the parameters are changed as the update of technology lasts.



Double-head water cooling chiller unit wiring diagram

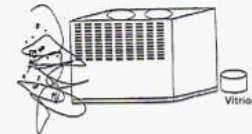
• Do not install at places below :

Attention



Power connection
Main power must be connected to leakage breaker.
Install as per the voltage showed on the Instruction Plate.
Ensure earth connection.

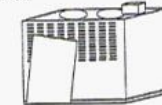
Warning



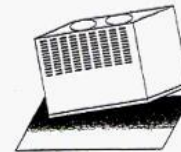
Do not install where etchant gas exist or where the etchant liquid stores.



Danger!
Do not knock the machine or put stuff into the air vent.



Do not put things on the machine. Do not cover the air inlet hole.



Do not put the machine to where could get rain fall, wind, dust, or etchant gas, nor where vibrates, leans or with bad ventilation situation, nor where near the heat or the temperature is over 40°C.

Shall cut off the power when unnormal vibration with scorched smell occurred, or would lead to machine broken down, electronic shot or fire breakout.

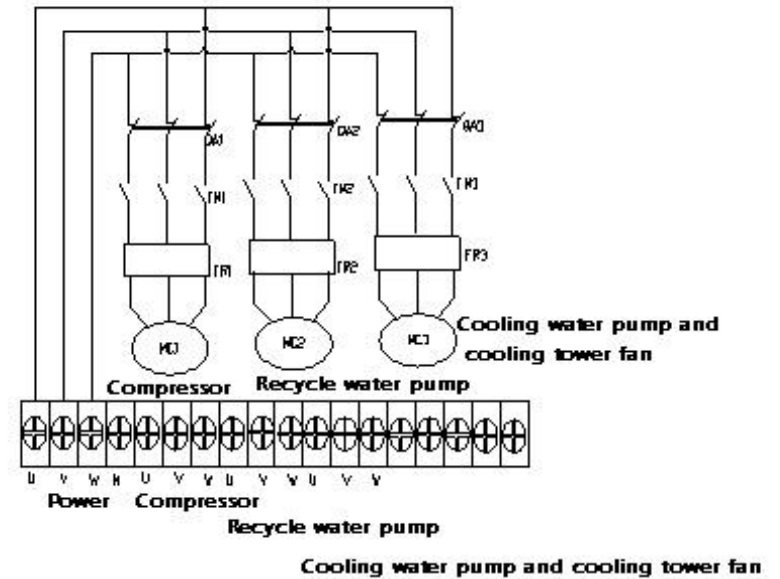
Instructions and Notices of setting and transportation

1: Machine Transportation

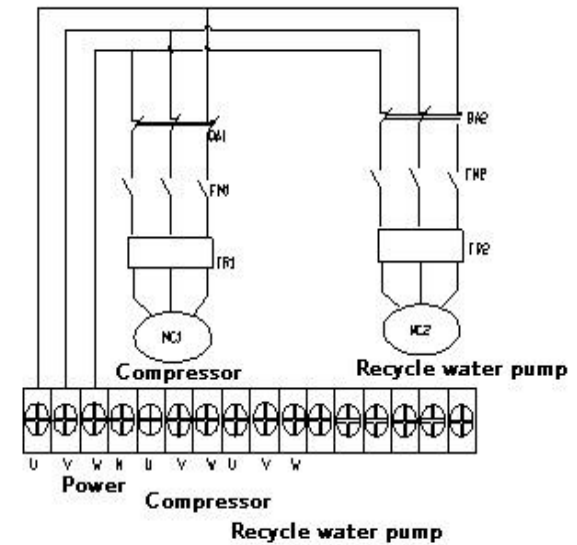
- (1) It should have some necessary safeguard procedures, rain-proof and crash- proof when transport the water chiller
- (2) During the machine transportation, it should handle with care to avoid crash.

2: Machine Setting

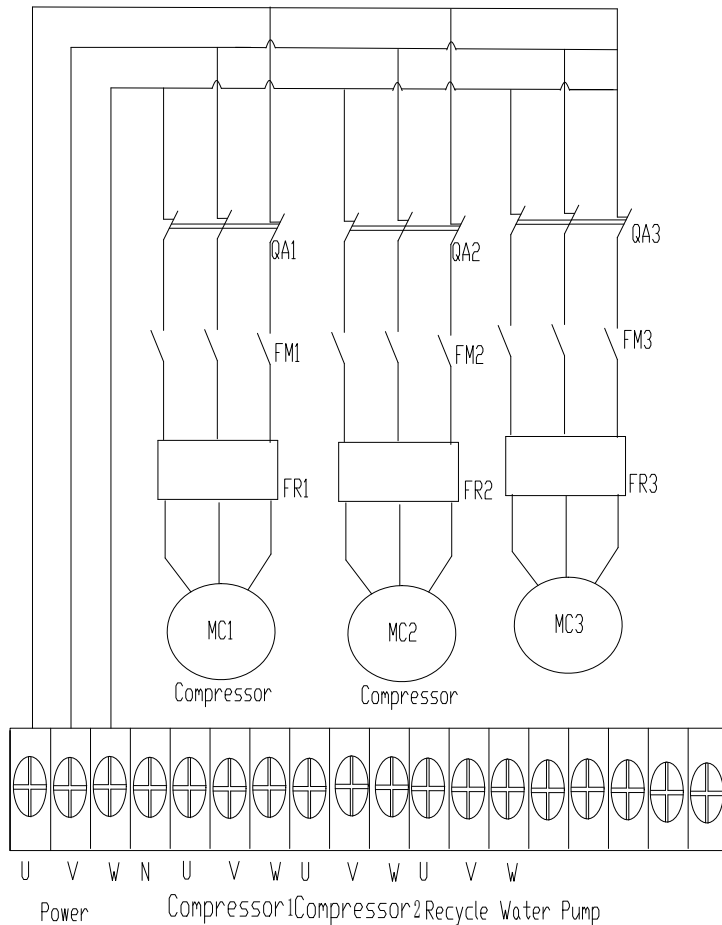
- (1): The machine should be set in ventilated good, dry and no air pollution place. The ambient temperature of indoor should not be higher than 45 °C and the installation site should keep balance.
- (2): The in-out water pipe and Circulating cooling water pipe of water chiller should match right with reasonable design and connection leakage.
- (3): Refrigerating unit should be far away from the walls around obstacles more than 50cm.



Single-head water cooling chiller unit wiring diagram



Air cooled chiller wiring diagram



Double-head air cooled chiller unit wire connection figure

Three: Power link

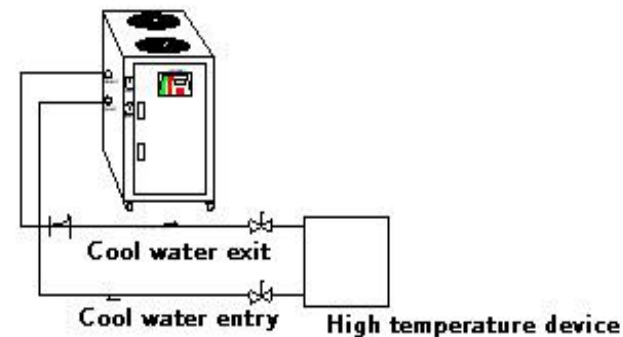
- (1) Adopt 2phase2 wire mode, power line(V、 N) linked to 220V power, (N)linked to null line, and be correct when doing the earth connecton.
- (2) Motors main power: Power Voltage: 220V \pm 10%
Frequency: 50HZ \pm 2%
- (3) Do not start machine, when the power voltage vibrates beyond the acceptable range, or we will not take any responsibility for any errors and lose caused by this action.
- (4) Do not change the control wireline or the electrics or anything related. Contact us before you change any part, we will confirm and advise, or we

will not bear any consequences.

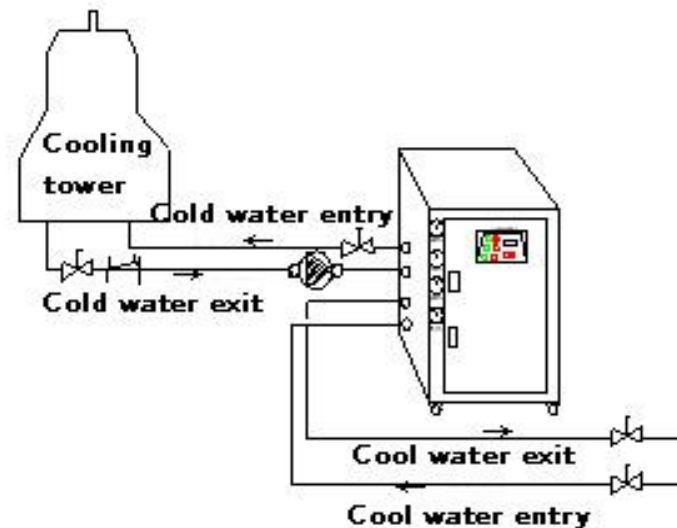
Four: How to run machine

- (1) Make sure there are no stuffs around, wire lines are correctly connected, water tubes are fastened tight and mounted correct, and voltage normal before starting machine.
- (2) Open the auto-moisturizing valve and check if the water tank of cooling machine is filled up. For the water chilling unit, you need to check if the external recycle system like cooling tower, water pump, water condenser etc. are filled up with water. Do not run in lack of or without water.
- (3) Press power key, check the instruction light on the plate and temperature display. The water pump is already running, but the light on temperature display is flashing, the main motor will start working after 4 minutes. (Multi-head unit having 3 minutes more delay)

Five: Temperature adjustment



Wind chiller unit installation instruction



Water chiller unit installation instruction

(1) Operation instruction

The functions of instruction lights from top to bottom on the temperature displayer showed as figure below:

Cooling	On	Normal
	Off	Power off、 temperature controller is delaying or the temperature beyond range
System bug	On	(1)Water pump scuffs after long time non-using.(Help start water pump) (2)Main motor lack water or water pump breaks down, change water pump.
Temperature controller	A11	Poor ventilation&heat dissipation, shall check if there are barriers around(water cooled unit shall check if the cooling tower, water pump, water condenser etc. external recycle system is running well, reset the machine by pressing the pressure button(2 red lights) after remove all the problems.
	EE 或-EE	Heat detector: Short circuit or disconnectedReset

Indicator light	On	flashing
Temp. upper limit	Set upper temp.	
Temp. lower limit	Set lower temp.	
Cooling	Cooling	Compressor delay protection state

(2)How to set temperature upper & lower limit

Press the two abreast buttons at the same time, thus enter the temperature setting state. The temperature showed on the digital displayer by the moment is the upper limit temperature.(Press“▲”add 0.1℃.“▼”cut 0.1℃,press and hold more than 0.5 second for quick regulation.) Save by pressing two buttons simultaneously after setting. Same method to set temperature lower limit. Pay attention to the basic rule: Upper temperature must be higher than the lower one.

Note: Plz check as per the above form first, if any error occurred.
 Contact us or professional technician if not work. Jackaroo do not touch
 in case bigger lose occurs.

2. Save only after log out the setting system. May not save settings
 If outage occurred. Do not start damage compressor frequently.
 (Double-head having 2 delay relay inside).

Six、 Basic working principle

1. Temperature control

Note: 1. During setting status, the system will
 automatically log out if no pressing on the buttons last
 for more than 5 seconds.

if not reach 4 minutes, then have to wait until 4 minutes.
 It will protect the compressor in case of a sudden power
 fail and on. (Note: The delay time is settable not fix, the
 above situation is for 4 minutes base).

Seven、 Bug analyses and solutions for simple errors

- (1) Plat indicator light status

Power bug	On	V、 U、 W of the main motor in wrong phase sequence Exchange the two lines position is ok
Water pump indicator	On	Water pump work normal

Temperature adjust as per the “Upper temperature” and “Lower temperature”, suppose the “Upper temperature” is 20°C, and the “Lower temperature” is 18°C, then the machine will start cooling when the heat detector sense the temperature goes beyond 20°C, and stop cooling when the temperature falls to 18°C. In this way, the temperature stays between 18-20°C.

2. Compressor delay protection when start machine

There is a “Compressor halt timer” inside the controller, it start timing when the compressor stop working. Check the timer first before start the compressor again, if the timer shows more than 4 minutes, then it’s ok to start compressor,

Cooling bug	On	(1) Check if the power line between A.C. contactor and the compressor is normal. (2) Main motor is broken (Contact professional cooling technician)
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