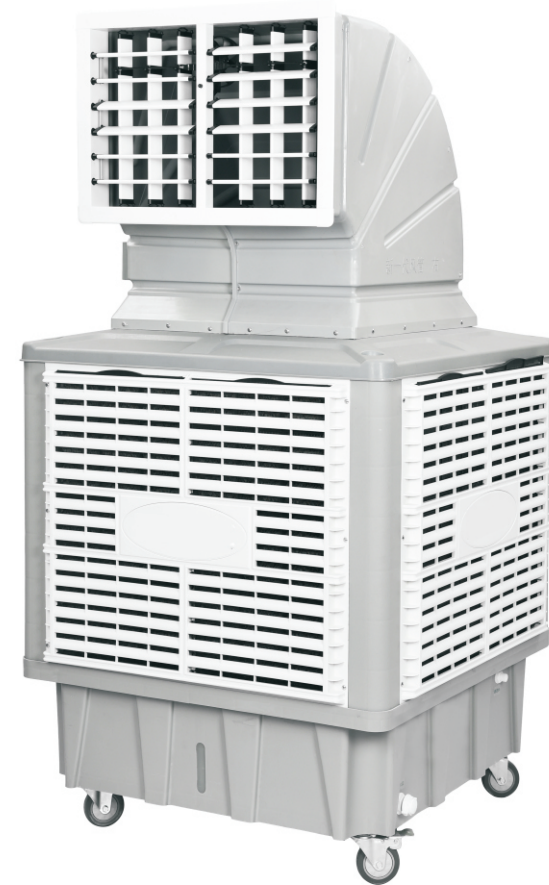


# Evaporative Air Cooler

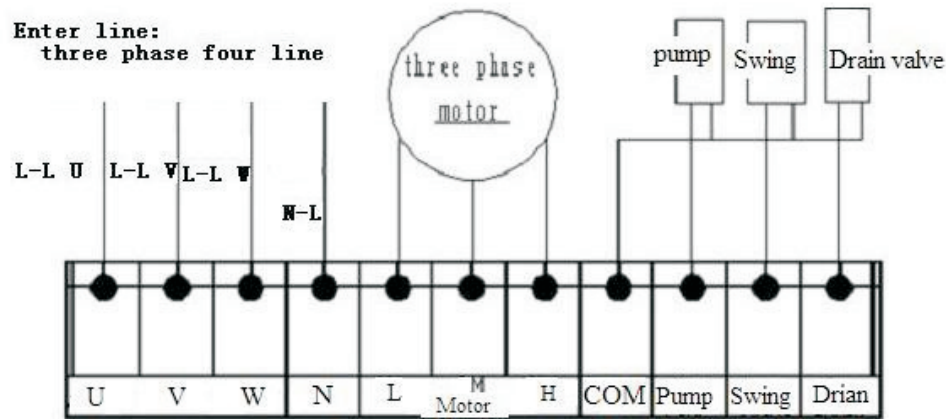
## Instruction Manual < <

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**Please keep this manual well.  
Please read this instruction manual before using.**

# Electric Schematic Diagram—Standard series(380V)



## Buttons instruction

- 1、 On/off: Start/End the Loading of Motor.
- 2、 Cooling: Start/End the operation of water pump.
- 3、 Speed: Adjust the blow speed ,and reset the protective current of motor,3A in default,by keeping pressing the button with about 5seconds when the equipment is powered off.
- 4、 Cleaning: press on/off to start or end the draining .It costs about 120Seconds to finish Draining ,during which other operations of the equipment will disfunction.
- 5、 Swing: directly control the ON/OFF button.
- 6、 Power off the equipment to reset the protective current: “Cleaning” button to increase the value, “Swing” button to decrease the value.
- 7、 The hardwares is the same between Single- speed equipment with three phase and three-Speed equipment with one phase.

Please read this instruction manual before using.

## Contents

1、	Safety Tips.....	2
2、	Product Introduction.....	2
3、	Scope of Application.....	3
4、	Application Environment.....	3
5、	Structure Diagram.....	4
6、	Application Notes.....	5
7、	Electric Schematic Diagram.....	6
8、	Electric Schematic Diagram.....	7-8
9、	Clean and Maintenance.....	9
10、	Major Failure and Solution.....	10

## 1、 Safety Tips

1. Do not put your hands or other objects on the air outlet of the operating machine set, and injuries may occur once touch the high speed running fan blade.
2. Do not climb onto the machine set, or place objects on it, and keep the children away from it.
3. Do not put burning appliances on the position where the machine can blow directly onto, or it may produce carbon monoxide that leads to poisoning.
4. Do not make any dismount or modification on the machine, because the incorrect dismount or modification may lead to Leakage, fire or electric failure.
5. Fill the water in the radiator from the water filling place of the machine.
6. Do not place the machine set on the place where there are inflammable and explosive gases, and it may easily cause fire if the leakage of the gas disperse around the machine set.
7. If the machine is unused for a long time, please empty the radiator, and then operate it under the air supply function for 10 minutes. Disconnect the power after drying the wetted pad, because the accumulating dust may cause short circuit.
8. The machine must be reliably grounding, incorrect grounding may result in electric failure or Fire.

## 2、 Product Introduction

Evaporative air cooler has advantages as below:

Energy saving: save up to 80% energy compared to the general traditional air conditioner.

Environmental protection: when on operation, the eco conditioner will not emit harmful substances to the outside world, without Freon.

High efficiency: utilize the least energy to produce the Refrigeration and purification effect to the most extent.

This eco air cooler is an eco product of the new generation, combined with our climate conditions. It's suitable for use in most areas; the product uses a new generation of blades, with high speed, large air volume and high effectiveness.

Its working principle is that the new wind gasifies the water with high speed and sips a lot of heat to cool down in a short time. It's a new technology of the energy and environment conservation air-conditioning products, which are R & D designed and manufactured by our company. When it's working, the pump contracts the water from the radiator, and evenly distributes it through the manifold to the evaporative heat exchanger made of special fibers. Large flow of axial (centrifugal) fan rotation makes the outdoor fresh air pass through evaporation heat exchanger at high speed, while during the water gasification, large amounts of oxygen ions will be produced, oxygen-rich fresh air is delivered into the room after pressurized, and exhaust the stale air through the open doors and windows, thus completes the whole process of cooling ventilation. By doing the recirculating, in the appropriate space, the temperature will substantially decreases, and the air quality will be greatly improved.

## Warranty card

Customer name:	Contact:
Contact person:	Address:
Main frame model:	Release date:
Maintenance records:	
Agency	

## 10、 Major Failure and Solution

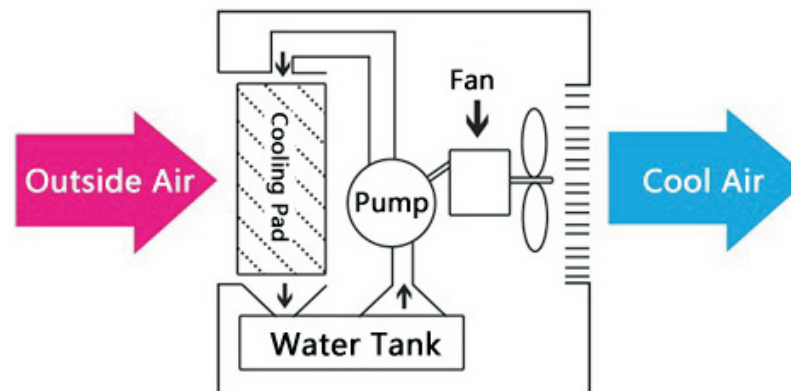
### Frequency series(220V) circuit board

Failure phenomenon	Possible Cause	Solution
01	Overcurrent alarming	Short circuit of Motor or Circuit Board.
02	Communication failure	1.The communication line is disconnecting or poor connecting. 2.Fault from circuit board.
03	Overvoltage protection	input voltage>AC280V.
05	No-load alarm	motor disconnected or phase failure.
06	Over-load alarm	Stalling,phase failure or understandard set Value.

### Standard series(380V) dircuit board

Failure phenomenon	Possible Cause	Solution
05	No-load alarm	motor disconnected or phase failure.
06	Over-load alarm	the value of motor current over the protective value. Cause:Stalling,phase failure or understandard set value.

evaporative air cooler strives for you to create energy-saving, environmental protective, cool and comfortable working environment.



Working Principle Diagram of Evaporative Air Coolers

## 3、 Scope of Application

Almost all place which require cooling or ventilation can be used, such as:

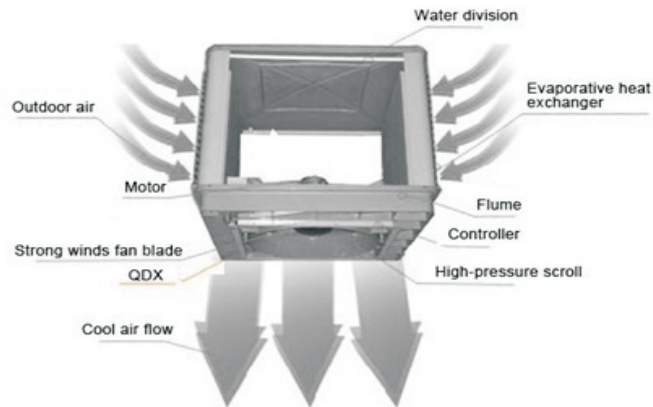
- Textile, printing and dyeing, plastics, steel, machinery, ceramics, chemical industry, metallurgy, glass, metal, leather and other industrial plants workshop;
- Plating, electronics, footwear, printing and dyeing, clothing, printing, packaging, food processing industry sites;
- Hospitals, hotels, stadiums, exhibition halls, schools, waiting rooms, supermarket, laundry room;
- Kitchen, markets, large-scale entertainment center, underground parking, stations and other public places;
- Greenhouse, flowers, poultry, livestock and other kinds of farms;

**For the hot air and smelly shop or public place can be cool down in whole or in post.**

## 4、 Application Environment

1. Environment temperature: 2℃-45℃
2. Environment on the humidity: ≤90%;
3. Atmospheric pressure: 86KPa~106KPa;
4. Water supply be softened, 0℃ <water temperature<45℃, Water pressure: 0.15~0.6MPa;
5. Voltage deviation is ±10% less than the rated voltage;
6. Non-corrosive gas.

## 5、 Structure Diagram



## 6、 Application notes

To avoid damage to the users or others' personal and property security, please do observe the following notes:

- △This sign means that please be careful “remind attention”.
- ⊗This sign means that what can not do “forbidden”.
- ⓄThis sign means that please do implement“compulsion”.
- ⊗It's forbidden to use this machine in the environments where there're flammable and combustible materials.
- △Please do not place the machine on inclined or unbalanced position, to avoid the falling of the machine, and resulting in any damage to the machine or the components inside of it.
- △Please do not place the air input and output port of the machine near to the wall, curtain and any other substances, otherwise it may block the air flow and affect the air supply.
- △The maintenance must be implemented by the qualified or professional specialist.

## 9、 Clean and maintenance

### ●Cleaning the wetted pad



Disconnect the power, unscrew the 6 screws on the top of the shutters with a screwdriver, hold the upper part of the shutters, and pull up slightly (slightly raised up) to remove the wetted pad components.

#### Notes:

When cleaning, the water pressure can not be too high; acidic or alkaline detergents are forbidden to use for cleaning the wetted pad.

#### Cleaning method:

1. Pull the power plug, screw out the screws of the upper part of grille, take off air-inlet shutter grille.
2. Manually reverse drain valve.
3. Clean the batholith with a soft cloth or brush.
4. Wash the dirt on the water level control sensor with a small wet cloth.
5. Clean the dirt on the water pump and filter screen.
6. After washing, tighten up the drain valve.

### ●Outer cover cleaning

Clean with mild cleaning agents and soft cloth (Do not use cleaning materials produce bubbles, volatile solvents or hard cleaning brush to do the cleaning. the wrong cleaning methods will result in equipment damage or accident).

## Installation

1. Open the package, and put the machine on the flat floor.
2. Please check whether all parts are in the packing bag or not.
3. Add the clean water into the water tank, but please don't let the water over the high water level.
4. Before operating, please check whether the parameters of power are same as the machine's.
5. Plug the power, press "power" button on the control panel, choose the appropriate wind speed position, that can run the air cooler.

### Attention:

\*Add a plug into power socket, or connect the power line to switch, to ensure good contact.

\*When moving the machine, unplug the power.

\* Don't turn off the power with wet hands. It may cause the electric shock.

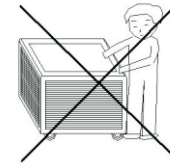
\*Access to power, the machine is in standby state, press the control panel power button, evaporative air cooler running.

Warm suggestion: After the installation, please keep this instruction book for future use.

Only professionals or authorized repairmen are allowed to repair or rebuild the machine.



Prohibit open



Can lead to fire or injured by abnormal movements.

Do not use the machine beyond AC of 380V/220V±10% voltage.



Prohibit

AC  
380V/220V



Easily lead to fire or electric shock.

Before usage, please make sure that the rated current of the input line is or above 10A



Easily lead to fire.

The machine should be reliably grounding, if grounding equipment not installed, this may give rise to cabinet and other metal parts with electrostatic induction.



Ensure grounding

Failure or leakage may lead to the risk of electric shock.

When cleaning tank and wetted pad, or not using the machine for a long time, please make sure the power has been switched off first.



Probably cause electric shock or injured.

Do not break, bend and pull by force, twist tied or bound the power cord, do not put heavy objects on it, when power cord is aging or knotting, immediately stop using.



Prohibit



Easily cause fire or electric shock.

Use water pressure 0.15-0.6MPa to supply water, and water temperature should not exceed 45 centigrade.



Prohibit



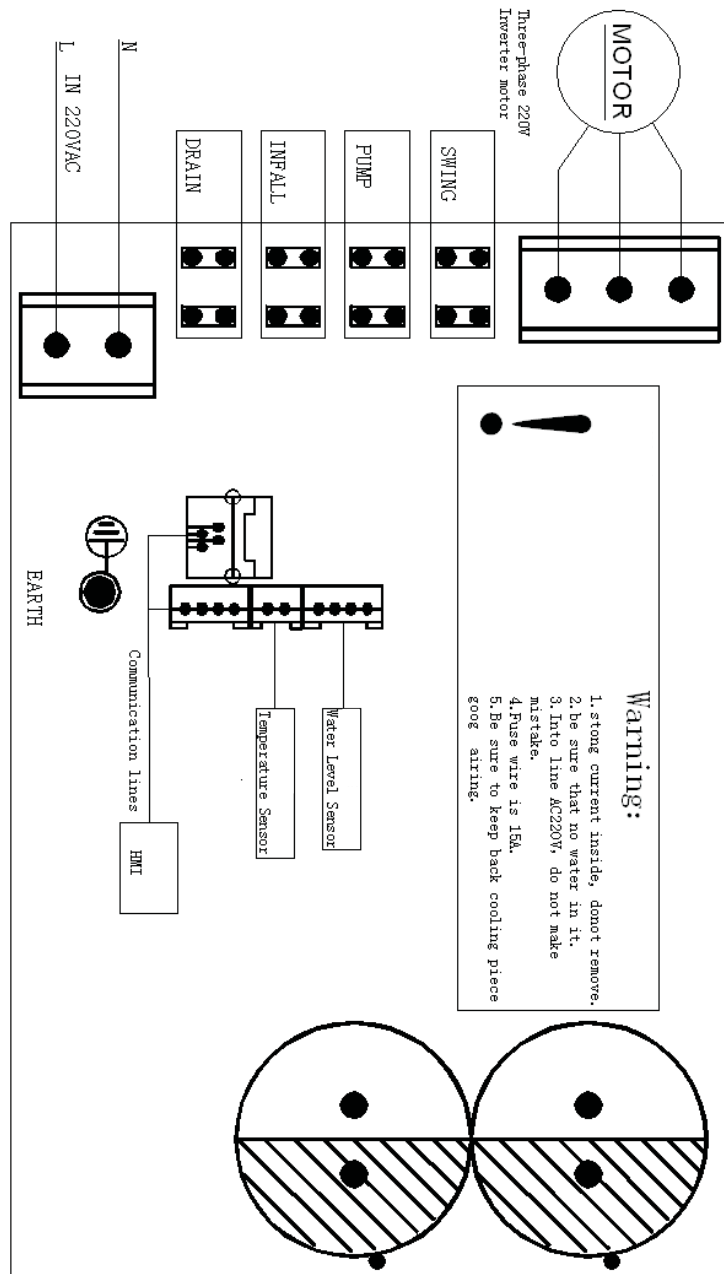
Dissolution of wetted pad, deformation and damage of the plastic may influence the performance of the machine.

If the power cord is damaged, it must be replaced by maintenance department authorized by manufacturer or similar professionals to avoid danger.



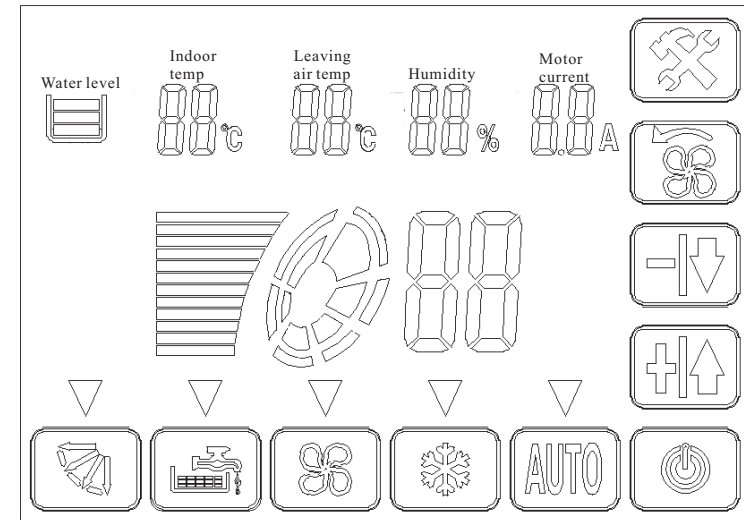
Easily cause adverse effect

## 7、 Electric Schematic Diagram



6

## 8、 Electric Schematic Diagram



### Electric Schematic Diagram

Controller includes: Showing operation panel, Variable frequency drive board, communication line, water level sensor, temperature sensor, Temperature Humidity Sensor.  
Display content: Water level status, indoor temperature, Leaving air temp, Humidity, Motor current, Wind speed barcode, Motor dynamic display, digital display, Pattern Instructions icon.

Touch-key definition:

Left to right: swing, washing, Air supply, cooling, auto, on/off.

Up to down: Temperature and humidity setting, exhaust, Decrease, Increase.

Parameter Setting:

1. Press "AUTO" with 4 seconds, Then set the max working frequency from 30HZ to 60HZ.
2. Press "COOLING" with 4 seconds, Then set the time of motor startup delay from 0 minute to 4 minutes. The default is 0 minute.
3. Press "air supply" with 4 seconds, Then set the max working current of motor: from 3.0A to 9.9A. The default is 8.5A.
4. Press "washing" with 4 seconds, Then set the auto washing time from 0 hour to 720 hours. And the digital "1" means: 10 hours, "2" means: 20 hours... "72" means: 720 hours. The default is 0 hour.
5. Press "Swing" with 4 seconds, Then set the working temperature of Auto mode from 1°C to 49°C.
6. Press "Exhaust" with 4 seconds, then set the working humidity of Auto mode from 20% to 99%.
7. Attention: Make sure the machine is in power off status, Then do all the setting.

7