

INSTALLATION OPERATION MANUAL

IDDAC-670 / INDUSTRIAL EVAPORATIVE AIR CONDITIONERS



<u>1300 900 345</u>





Please Read - Safety Notice

When using electrical appliances, basic safety precautions should always be followed. Before initial operation of the product, remove all packaging and check that product is in good condition.

- DO NOT climb or stack things on the unit
- DO NOT let children play with the unit or packaging
- DO NOT put unnecessary objects into the air outlet as this could cause damage to the fan, which could lead to injury.
- DO NOT place burning apparatus around or near that the unit can blow directly as this may lead to carbon monoxide poisoning.
- DO NOT install or service unit whilst it's raining, windy or during severe weather conditions.
- DO NOT install unit where there is paint, explosive gas or flammable goods stored as this could cause a fire.
- DO NOT repair or adjust any electrical or mechanical functions as this may void the warranty. Please contact the staff at Fanmaster if you have any issues.
- Always unplug the unit when not in use.
- This unit must have a reliable earth wire connection. If the earth wire isn't connected to the unit correctly this may cause electrical shock or fire.
- Use this unit only in the manner intended by the manufacturer.
- Installation must be done by a licenced and qualified person(s) and must conform with all applicable codes and standards.

PRODUCT BRIEF INTRODUCTION

Evaporative air coolers have the following advantages:

Energy saving – Compared to traditional air conditioners, the energy savings can reach above 80%.

Environmental protection – When running, it will not emit harmful substances to the environment.

Efficient – Minimum energy is required to run these units.

Evaporative air coolers use evaporation to cool the air. In an evaporative cooler a pump circulates water from the reservoir on to a cooling pad, which in turn becomes very wet. A fan draws air from outside the unit through the damped pad. As it passes through the pad the air is cooled by evaporation. The temperature of dry air can be dropped significantly through the phase transition of liquid water to water vapor (evaporation), which can cool air using much less energy than refrigeration systems.







Non-professional or non-authorised repair personnel, will not be permitted repair or modify this machine



prohibit detaching

Will lead to a fire, abnormal actions could cause injury.

Only use rated current above 10A



When using with a combination of other electrical appliances, the plug board may overload resulting in a fire

Ensure the power plug is removed from socket when cleaning the water tank and cooling pad, moving the machine or long-time non-use.



If power plug isn't removed safely this could lead to shock and injury.

Use 0.15 \sim 0.6 MPa water pressure. Do not exceed water temperature of 45°C



May cause erosion of cooling pad and deformation of plastic affecting the performance.

Do not use voltage exceeding AC 220~240V± 10%





This may cause fire or lead to an electric shock.

This machine should be used with single-phase two pole grounded electrical outlet. If grounding device is not installed, it could lead to airframe and other metal parts with electrostatic induction.



Ensure grounding

When unit isn't grounded there is a danger of an electric shock.

Do not damage, destroy, bend, twist wiring or tamper with power cord. Do not put heavy objects on power cord. If power cord is showing signs of aging, knots, or damage, immediately discontinue use of unit.



If power cord is damaged this may cause fire or lead to an electric shock.

In order to avoid any risk if the power cord of the unit is damaged, contact your service representative to change to a new one



Operating the machine with a damaged power cord may cause fire or lead to an electric shock.

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- Strictly prohibit use in a flammable and/or explosive gas environment.
- Δ Do not install on uneven surface. Unit must be level when installed.
- \triangle Do not have machine too close to walls, curtains and other material, this may block the airflow and air supply.
- \bigwedge Unit must be maintained on a regular basis.
- Δ If the unit is damaged or faulty, contact the manufacturer. Unit must be repaired or serviced by a licenced or qualified person(s) only.

Correct disposal of this product



This Marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal waste disposal, recycle it responsibly to promote the sustainable reuse of the material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

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SKETCH OF OPERATING PRINCIPLE



SPECIFICATION

Main Parameter		
Model	IDDAC-670	
Max airflow	18,000m³/h	
Voltage/Frequency	220-240V/50Hz	
Current	5A	
Power	1.1kW	
Motor	IPX4	
Fan type	Axial/50 Speeds	
Water capacity	25L	
Dimension	1080/1080/980	
Net weight	69kg	
Applicable Area (m²)	100~150	
Air outlet size (mm)	670x670	
Noise	≤72dB	
Water Consumption	5-25L/h	
Machine protection grade	IPx4	

WIRING DIAGRAM





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Parameter/Personalised Setting			Particular Configuration	,	
1	Largest Airflow (m³/h)	18000	1	Sunshine resist PP machine cover (100% new material)	
2	Air Outlet Direction	down	2	Single-phase copper coiling wire motor	
3	Engineering Noise (dB)	≤68	3	Three-nylon blades	
4	Operating range	-20°C ~ 55°C	4	5090 High effect cooling pad	
5	Motor Insulation/Protection level	F/IP64	5	Cooling pads protective cover	
6	Voltage/Frequency (V/Hz)	220/50	6	Water diversion rigid PVC pipe	
7	Power (kW)	1.1	7	Open-type water diversion device	
8	Current (A)	5	8	Inflaming retarding control box	
0	Controller (Air) (olympo Mode	ontroller/Air Volume Mode LCD Panel/Remore control/3 Speeds 10	9	50 Speeds controller Moistureproof processing	
/			10	LCD screen control panel	
10	Body Length/Width/Height	1080/1080/980	11	15m remote control	
11	Mounting Foot Size (mm)	970*970	12	Temperature and humidity sensor	
12	Dimensions of flanged outlet (mm)	670*670	13	Control Panel/Remote install pedestal	
13	Inlet Pipe Diameter	Ф20	14	Floating water inlet valve	
14	Drain Pipe Diameter	Ф32	15	Ceramic axis water pump	
15	Pipe Blowing Distance	25	16	Fluent type drain pump	
16	Direct Air Supply Distance	22	17	Rocker type water sensor	
17	Evaporation Rate (%)	≈92	18	8m National standard sianal wire	
18	Suitable Area (m²)	80-150	19	4m National standard power supply wire	
19	Fault Code Prompt		20	Ean steel stainless support pole	
20	Fully Automatic Operation Mode		21	Total steel stainless screw	
21	Refrigeration Settings		22	Galvanised air duct flange	
22	Ventilation Settings		23	Steel net flange (suggest optional spare part)	
23	Manual Cleaning Settings		20	Stainless steel aguze element bracket (optional spare	
24	Left and Right Auto Swing Setting		24	part)	
25	Automatic Blowdown Setting (default 8 hours)	0~72hour/time	25	Water ultraviolet sterilisation device (optional spare part)	
26	Temperature Limiting Switch Setting		26	PP Dustproof net (optional spare part)	
27	Moisture Limit Setting		27	Moisture Limit Setting	
28	Automatic Call Recovery Operation		28	Motor limit electric current protection	
00	UV Sterilisation (20 Minutes off automatically After Cooling D	29	Water pump water shortage protection		
29			30	Water pump water temperature protection	
			31	Power phase shortage protection	
	standard configuration		32	Power voltage over/shortage protection	

Environmental Conditions

- 1. Ambient temperature: 25°c ~ 45°c;
- 2. The max relative humidity is ≤90%
- Water should be soft, 0°c <water temperature <45°c, the water supply pressure: 0.15`0.6MPa;
- 4. Always operate the product from a power source of the same voltage, frequency and rating as indicated on the product identification plate. The voltage should not exceed rated voltage of \pm 10%;
- 5. No corrosive gases.
- 6. Do not use in flammable or explosive to prevent fire hazard and personal injury.
- 7. Precautions must be taken to avoid the back-flow of gases into the room from open flue gas or other fuel-burning appliances.





IDDAC-670 BRIEF DIAGRAM OF STRUCTURE



PACKING LIST

Serial Number	Name	Quantity
1	Evaporative Cooler	One
2	Operation Manual	One
3	Warranty Card	One

In order to prevent harm or damage to users and other people's personal safety and property, make sure to comply with the following;



This symbol, referring to "please be careful" - "to draw attention to"

N This symbol, referring to "do not do" - "banned"

I This symbol, referring to "the need to implement" - "mandatory"





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CONTROL PANEL BRIEF INTRODUCTION

- 1. LCD screen
- 2. "
 ^(m)"Cleaning mode
- 3. "Signation of the swing 3. "Signature of the swing states of th
- 4. "88" Ventilation mode
- 5. "
 ⁽¹⁾ Temperature setting(optional function)
- 6. "
 "Humidity setting(optional function)
- 7. "A"Setting the current of the motor
- (refer to the page15)
- 8. Signal received

9. "A"Increase the wind speeds:under the operating condition, press this button to increase the wind speeds.

- 10. "
 "Reset button(optional function)
- 11. "🛞"Cooling mode
- 12. "O"ON/OFF

13. " Reduce the wind speeds: under the operating

condition, press this button to reduce the wind speeds.

14. " 🕋 "Auto cleaning setting

15. The motor on this machine is single-phase with frequency control. The maximum range of the setting current (unit is 0.1A) is 50-90 (5-9A) with a default of 65 (6.5A). The factory setting is 5A on this model (IDDAC-670).

Attention: we have adjusted and set up the factory current during the inspection. Customers are not allowed to adjust this factory current setting to help prevent failure of the machine.

LCD REMOTE CONTROL

- 1. "🕐" ON/OFF
- 2. "A" Increase the wind speeds
- 3. "**v**" Reduce the wind speeds
- 4. "(*)" Cooling mode
- 5. "88" Ventilation mode
- 6. "👜" Cleaning mode
- 7. "🔩" Contol the swing
- 8. "^(IIII)" Reserve

FANMASTER COOLING HEATING VENTILATION DISTRIBUTION

Air cooler





OPERATING INSTRUCTIONS

1. After pouring water in, water inflow and water level will be controlled by float valve.

2. While power supply is connected the Evaporative Air Cooler is in standby mode. Press """ to start the machine; and then press """ to turn the machine off, returning unit to standby mode.

3. To switch on, press "" in cooling mode. If water level is low - unit will alarm, water pump will stop running and fan will run directly; If water level is high - water pump will run, fan will run after 5 a second delay. Attention: Turn off under cooling mode, fan will be off after a 20 minute delay, press "off" button 2 times to turn off forcibly. 4. Water pump will start, and after 5 minutes UV lamp will start to disinfect (Show "UV" on LCD), water pump will be off after UV lamp is running for 20 minutes.

5. Switch on, press "" for ventilation mode, the fan will start running.

6. Switch on, unit will be cleaned automatically (discharge waste) once for every 8 hours the unit is running without Off memory turned on. Under status of power on , press "a" for a continual 5 seconds. Automatic cleaning schedule can be set from 2 to 72 hours. The initial default of the system is 8 hours. Press "a" to set manual draining mode (clean), drain valve. Power on, after 120 seconds valve will close and machine will be on standby.

7. On standby mode, press "⁽⁽⁾)" for a continual 5 seconds (alarm will sound once), set temperature: 1~49 degree (selective function).

8. On standby mode, press "¹" for a continual 5 seconds (alarm will sound once), set up lowest humidity H0 limit: 20%~99; press "¹" for a continual 3 seconds (alarm will sound twice), set up highest humidity limit H1: 20%~99%. Attention: If set to H0 and not set to H1, H1 will be H0+5% (selective function).

9. "• Automatic mode: Automatically controlled by set temperature and humidity.

Indoor temperature (compare with setting temperature)	Indoor humidity>setting humidity H1	Indoor humidity <humidity h0<="" th=""></humidity>		
lower 2 degree	unit won't run	run of 5 speed ventilation		
higher 0 degree	run on 10 speed ventilation mode	run on 10 speed cooling mode		
higher 1 degree	run on 20 speed ventilation mode	run on 20 speed cooling mode		
higher 2 degree	run on 30 speed ventilation mode	run on 30 speed cooling mode		
higher 3 degree	run on 40 speed ventilation mode	run on 40 speed cooling mode		
higher 4 degree	run on 45 speed ventilation mode	run on 45 speed cooling mode		
higher 5 degree	run on 50 speed ventilation mode	run on 50 speed cooling mode		
Attention: 1. Restart from power off: run same as setting condition before power of. (Power off/on reset function) 2. Ventilation and cooling mode change into min. cycle: 10 minutes				

10. Float valve: Controls automatic water inlet and water level - """ shows water level: One block means there is not enough water; Two blocks means there is poor contact with the signal wire; Three blocks means water level meets requirement. If unit lacks water, an alarm will sound, at the same time water pump will close. Please keep water inlet running.

11. Do not operate machine without cooling pads.

12. For periods of discontinued use, please keep water tank empty. Run for 10 minutes under ventilation mode to dry the cooling pads.







Important Notice for Installation

Read instruction mannual carefully before installing air cooler and by strictly complying with the project plan.

(1) The equipment is suitable to be used in an open space.

(2) Before installing the bracket of the air cooler, measure the right position and write a level line with level bar. The bracket shall be installed horizontally without slant, and the spacing between machine body and the wall is 280-330mm. (It varies from different locations) the indoor controller shall be at least 1.5m hign from the ground, and the soldering and installation of mounting bracket should be stable. The air cooler must be installed outdoor and horizontally without slant. The bracket have to be able to load dynamic weight not less than 250kg. If the bracket is installed 3 meters high from the ground, it must be added with guard rail. The water inlet pipe and drainage pipe shall be properly installed. The water inlet pipe should be installed with afilter, so as to keep the water clean. The drainage pipe unblocked. The water inlet pipe and drainage pipe should be made from PVC tube and installed with fast glue.

(3) Duct normally be within 45 meters distance, when the air supply duct send nozzle or duct area not less than 1m in length and size must be made in accordance with design standards. Duct into the wall distance from the ground after the nozzle is generally not less than 2.2 meters (except in exceptional circumstances).

(4) If there is branch air pipe, the air deflector must be installed on the branch pipe to regulate or balance the air volume, so as to make the air volume of the branch pipe reach the design value.

(5) If it is required for low noise, the silencing elbows shall be used, so as to meet the requirement.

(6) Leak-proof treatment is required for the wind pipe. As for the bottom air discharge model, four 10mm drainage vents shall be opened on the bottom of waterproof elbow. When the wind pipe is connected to the room through the top of iron canopy or the building top, leak-proof treatment is required for the iron canopy and building top, so as to avoid the rainwater running into the room along the wind pipe.

(7) When the outdoor unit is installed on the exterior wall without window or far from window, a maintenance ladder shall be installed near the unit (the ideal material is stainless steel), so as to facilitate the maintenance.

(8) When the outdoor unit is installed under the windowsill, the glass window should be movable, so as to open it when necessary. If an anti-burglary net is installed on the windowsill, try to install a movable door with lock on the anti-burglary net in case of any maintenance.
(9) Before testing the machine, check whether the water level is between the leakage opening and the water inlet of submersible water pump. If the water level is excessively high or low, the ball float should be adjusted. Discharge the dust and impurity in the water pipe, check whether the power supply is normal and whether there is leakage on the water inlet/outlet pipe, then the testing can start.

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INSTALLATION METHOD



COOLING HEATING VENTILATION DISTRIBUTION



Installing bracket





Sketch map of axial fan duct distribution









TROUBLESHOOTING

1. Unable to turn on/off	 No power connection Button switch failure Phase Low voltage 	 Check power plug Replace control panel Check phase Check Voltage
2. Frequent burningfuse	 Water pump damaged Drainage pump damaged Synchronous motor damage 	 Change water pump Change drainage pump Change the synchronous motor
3. Water leakage	 Machine has been installed on uneven surface Water leakage of water tank Drainage valve damage Water inlet damage Water level is too high Water distrbution system is damaged Evaporative cooling pad is dirty 	 Unit must be level when installed. Repair or replace the water tank Change drainage valve Change the water inlet accessories Adjust the float ball valve Check the water distribution system Clean the evaporative cooling pad
4. Excessive noise	 Fan blade is dirty,deformed or damaged Motor wear The are sundries blocking the air outlet position 	 Change fan blade or adjust bracket Replace motor Clear the sundries
5. No air supply or poor wind speed	 The cooling pad or filter is blocked The control panel is damaged Mainboard is damaged Fan button does not work Motor phase 	 Clear or change the cooling pad and filter Change the control panel Change the electrical board Check the motor Check phase
6. Not cooling	 Shortage of water Water level system failure Water pump damaged Cooling function button does not work Mainboard is damaged 	 Add water into water tank till water Examine and repair water level sensor Change water pump Change the control panel Change the electrical board
7. Water tank and filter screen filled with precipitation	High content mineral of water supply	Increase drainage frequency
8. Malfunction code "01" Malfunction code "02" Malfunction code "03" Malfunction code "04" Malfunction code "05" Malfunction code "06" Malfunction code "07" Malfunction code "08"	 Over current protection Communications malfunction Input over voltage Input under voltage UV overload Swing overload Water pump overload Draining overload 	 Check whether the voltage and motor is normal. Check whether the cooling pad and filters are blocked. Check whether the signal line is connected well. Check the voltage Check the voltage Check whether the UV lamp is damaged Check whether the synchronous motor is damaged Check whether the water pump is damaged Check whether the draining pump is damaged

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CLEANING AND MAINTENANCE

Cleaning the cooling pad and filter screen



Unplug the power plug, use a screwdriver to screw off 6 screws from air-inlet grille upper, hold the upper of cooling pad, haul cooling pad out(tote up a little) detach off the cooling pad.



Attention:

When washing, hydraulic pressure can not be too high. Do not use acid or alkaline cleaning detergent to wash the cooling pad.

- Cleaning the water tank 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 drainage ball valve; 3. Clean the batholith with a soft coth 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.

• Cleaning the Cabinet

Clean with moderate and soft cloth. (Do not use a bubble of cleaning fluid, volatile solvents or hard cleaning brush for cleaning, the wrong method of cleaning will result on equipment damage or accident.)





WARRANTY TERMS

Any claim under this warranty must be made within 12 months of the date of purchase of the product. To make a claim under the warranty, take the product (with proof of purchase) to the store where you purchased the product or contact Fanmaster Pty Ltd.

Fanmaster Pty Ltd will pay your reasonable, direct expenses of claiming under this warranty. You may submit details and proof of your expense claim to Fanmaster Pty Ltd for consideration.

This warranty is given by Fanmaster Pty Ltd ABN: 45 353 934 457 Unit 1/6-8 Yalgar Rd, KIRRAWEE NSW 2232 P: 1300 900 345 E: warranties@fanmaster.com.au

This warranty is provided in addition to other rights and remedies you have under law: Our goods come with guarantees which cannot be excluded under the Australian Consumer Law. You are entitled to replacement or refund for a major failure and to compensation for other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Exclusions: This warranty does not cover:

Any defects caused by an accident, misuse, abuse, improper installation or operation, lack of reasonable care, unauthorized modification, loss of parts, tampering or attempted repair by a person not authorized by the distributor.

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Any product that has not been installed, operated or maintained to a satisfactory level.

Any damage caused by improper power input or improper cable connection.

