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CONDITIONING

REVOLUTIONARY COOLING AND REFRIGERATION
SOLUTION FOR A HEALTHY FUTURE



ECOLATER EVAPORATIVE COOLER

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شركة مصنع ويندماسون العربية للصناعة
WINDMASON ARABIA for industry

APPLICATIONS :



ISO 9001:2015 CE Windmason Arabia Co. ,Certified



ABOUT

The ECOLATER Evaporative Cooler is a 2-stage cooling system designed for commercial and industrial use.

1st stage, it employs a heat exchanger with installed cooling pads to cool the incoming air.

2nd stage, known as the cooling tower side, further decreases the air temperature by cooling the water used in the evaporation process, enhancing overall cooling efficiency.

Compared to ordinary desert coolers, the ECOLATER Evaporative Cooler is significantly more efficient and less humid.

It offers a remarkable 85% electricity savings and reduces water consumption by up to 70%. The cooling pads of the ECOLATER Evaporative Cooler have double the lifespan of conventional pads, contributing to cost savings and reduced maintenance requirements.

This advanced evaporative cooler is capable of achieving substantial cooling, with temperatures decreasing by less than 20°C. Additionally, it features dust washable aluminum filters for the supply of 100% fresh air, ensuring a clean and healthy indoor environment.

The use of a coil heat exchanger enables the reduction of humidity and water consumption while maintaining excellent cooling performance.

Moreover, the ECOLATER Evaporative Cooler is equipped with WIFI thermostat control, providing users

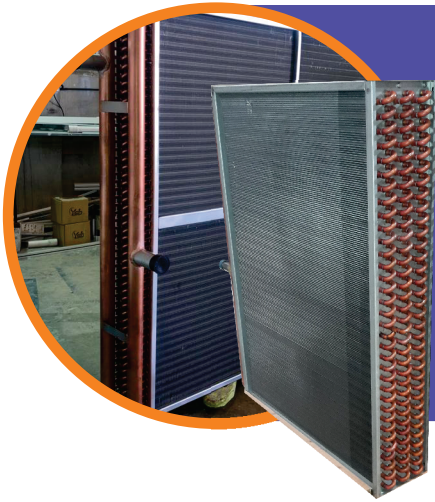
with convenient and flexible management of the cooling system. This technological feature adds an extra layer of convenience for monitoring and adjusting the cooling process.

In summary, the ECOLATER Evaporative Cooler represents a significant advancement in cooling technology, offering remarkable energy and water savings, extended cooling pad lifespan, efficient humidity control, and user-friendly WIFI thermostat control. These features make it a compelling choice for businesses seeking a high-performance and cost-effective cooling solution for their commercial or industrial spaces.



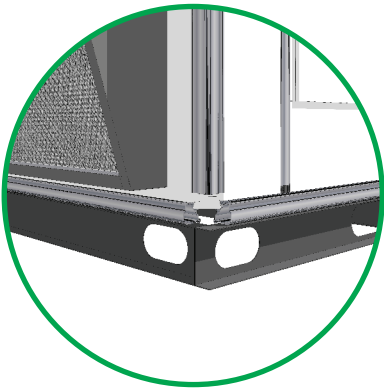
**COMMERCIAL AND INDUSTRIAL
COOLING SOLUTIONS**

MAJOR COMPONENTS



COOLING, HEAT EXCHANGER COIL

A choice of copper, PU coated, stainless steel, aluminum and aluminum magnesium (AlMg) finned coils are available, whilst the tubing and frame material can vary. The coils are generally copper tubes mechanically bonded to aluminum fins, with copper headers, all contained within a galvanized, aluminum or stainless steel frame. All coils are provided with drain connections and air vents. The tube wall thickness and the test pressures are determined based on the fluid passing through the coil. The cooling coil assembly is fitted on a stainless steel drain pan for condensate removal.



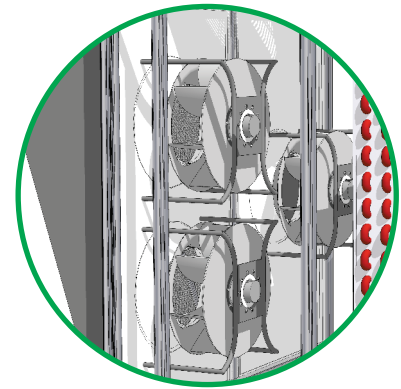
UNIT BASE

Bases are constructed using galvanized steel or stainless steel sheet metal profiles or heavy duty structural steel sections, either painted or hot dip galvanized.



CASING

Body structure are constructed using Aluminum profile with 30mm double skin sandwich panel metal profiles.



AIR SUPPLY FAN

The fans are EC (Electronically Commutated) Plug Fans, with built-in variable speed capability due to the EC brushless DC motor.

MAJOR COMPONENTS



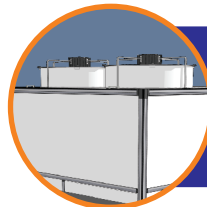
WASHABLE ALUMINUM FILTER
Aluminum washable air filter 3/4" thickness with frame. Accessible lock, expose face to easily wash it.



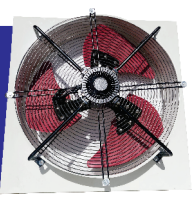

EVAPORATIVE COOLING PADS
Evaporative cooling pads with a thickness of 100mm have been installed in a fiberglass tank with a top that is easily accessible for replacement.




VARIABLE SPEED DC INVERTER
Primary fan motor is controlled by variable speed DC inverter power kits, which sense the load and vary the speed as per demand. This function save power and water with achievement of smooth indoor comfort.

COOLING TOWER FAN
Cooling tower fan motor is controlled by DC inverter power kits, which sense the load and vary the speed as per air flow.



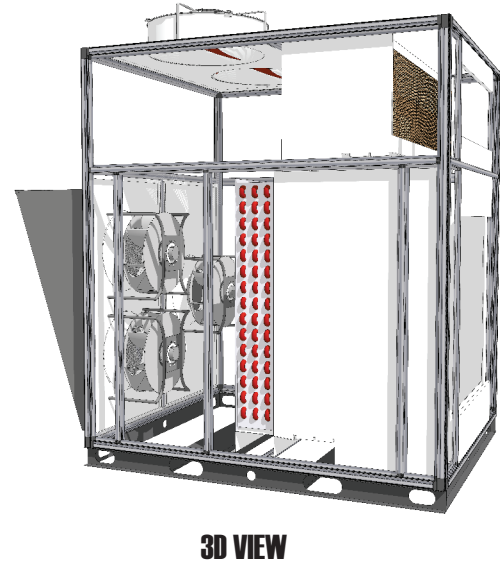
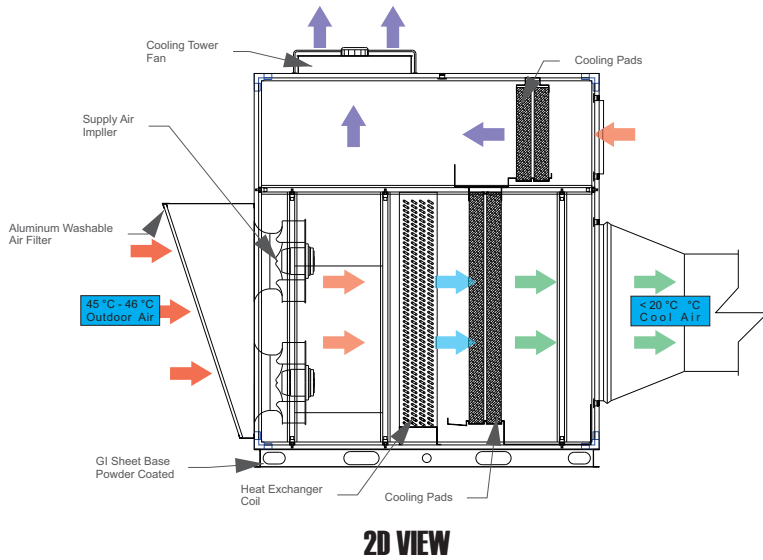
INDOOR COOLING & ENERGY CONSERVATION...



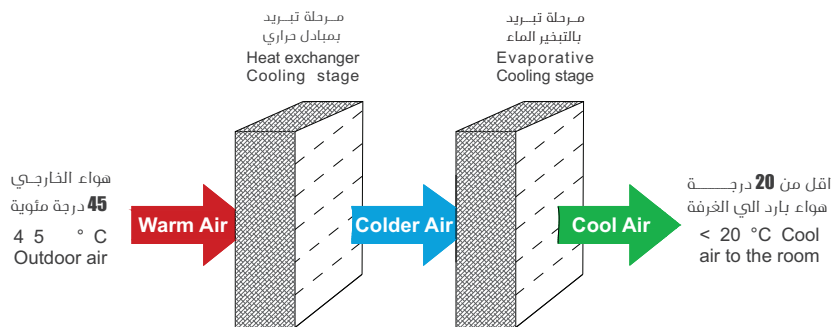


DISTINGUISHING FEATURES

- Best cooling performance up to 100%.
- Fan operates without a belt, running in dry air.
- Equipped with an Aluminum washable air filter.
- Longer lifespan of the cooling pads.
- Variable speed with inverter control.
- Lower water consumption.
- Equipped with a smart thermostatic controller.
- Reduces humidity levels.



WORKING DIAGRAM





TECHNICAL DATA

FEATURES \ MODELS	IDEC-1HP	IDEC-1.5HP	IDEC-2HP	IDEC-3HP	IDEC-4HP	IDEC-5HP	IDEC-7.5HP	IDEC-10HP	WM-EL-12K-2
Air Flow	2600 CFM	3500 CFM	4500 CFM	5500 CFM	6500 CFM	8000 CFM	12000 CFM	15000 CFM	12000 CFM
Supply Air Impeller Dia (mm)	D- 500	D- 500	D- 500	D- 500	D- 560	D- 560	D- 560	D- 560	D- 560
No. Of Impeller	1	1	1	1	1	2	2	3	3
Motor Power (watts)	1000	1000	1000	1000	2500	5000	5000	7500	7500
Max Current (Ampere)	4.2 / 8.0	4.2 / 8.1	4.2 / 8.2	4.2 / 8.3	9.0 / 18	9.0 / 19	9.0 / 20	9.0 / 21	9.0 / 22
Power Supply (Supply Air Impeller)	380V/220V-50Hz	380V/220V-50Hz	380V/220V-50Hz	380V/220V-50Hz	380V/220V-50Hz	380V/220V-50Hz	380V/220V-50Hz	380V/220V-50Hz	380V/220V-50Hz
Cooling Tower Fan Dia (mm)	615	615	615	615	780	780	780	780	780
No. Of Fan	1	1	1	1	1	1	1	2	2
Motor Power (Kw)	0.56	0.56	0.56	0.56	0.75	0.75	0.75	1.5	1.5
Max Current (Ampere)	2.6	2.6	2.6	2.6	3.6	3.6	3.6	7.2	7.2
Power Supply (Cooling Tower Fan)	220V-60Hz	220V-60Hz	220V-60Hz	220V-60Hz	220V-60Hz	220V-60Hz	220V-60Hz	220V-60Hz	220V-60Hz
Water Pump	3/4 HP	3/4 HP	3/4 HP	3/4 HP	2.0 HP	2.0 HP	2.0 HP	2.0 HP	2.0 HP
No. Of Water Pump	1	1	1	1	1	1	1	1	1
Max Current (Ampere)	7.0	7.0	7.0	7.0	12.0	12.0	12.0	12.0	12.0
Power Supply (Cooling Tower Fan)	220V-60Hz	220V-60Hz	220V-60Hz	220V-60Hz	220V-60Hz	220V-60Hz	220V-60Hz	220V-60Hz	220V-60Hz
Heat Exchanger Coil	5 TR	7.5 TR	7.5 TR	7.5 TR	7.5 TR	10 TR	15 TR	25 TR	25 TR
Cooling Area (m2 Approx)	85	120	150	190	220	270	400	500	750
Water Tank Capacity (Ltr)	45	50	50	85	85	85	120	200	200
Water consumption (Ltr/Hour)	19	25	32	39	46	57	86	107	157

Above mentioned CFM of Air Flow is on the free outlet of the unit Esp.

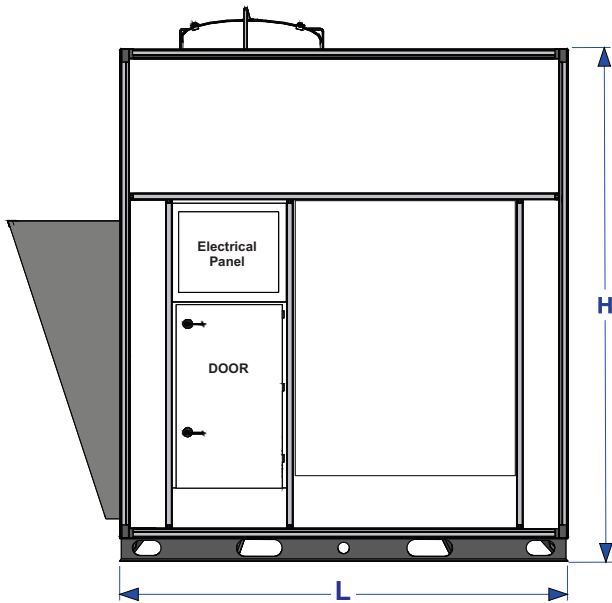
Water consumption is approximately vary with outdoor Air temperature and humidity.

PHYSICAL DIMENTION

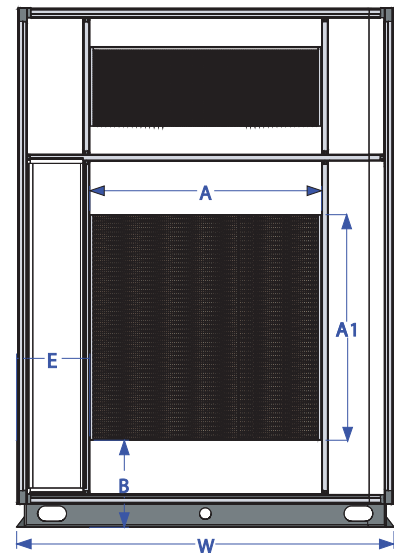
MODEL	L (mm)	W (mm)	H (mm)	A1 (mm)	A2 (mm)	E (mm)	B (mm)
IDEC-1HP	1670	1020	1220	465	465	277	480
IDEC-.1.5HP	1670	1020	1220	465	465	277	480
IDEC-2HP	1670	1020	1305	465	465	277	480
IDEC-3HP	1705	1270	1285	480	560	355	570
IDEC-4HP	1750	1460	1515	480	560	450	570
IDEC-5HP	1750	1460	1515	480	560	450	570
IDEC-7HP	2300	2100	1780	800	800	650	735
IDEC-10HP	3167	1692	1700	870	870	1147	629
IDEC-15HP (WM-EL-12K-2)	2350	1950	2680	1200	1200	375	450

Note:

Due to continuous development, the dimensions of the units may change, please contact Windmason before considering the physical dimensions in your project designs.



SIDE VIEW



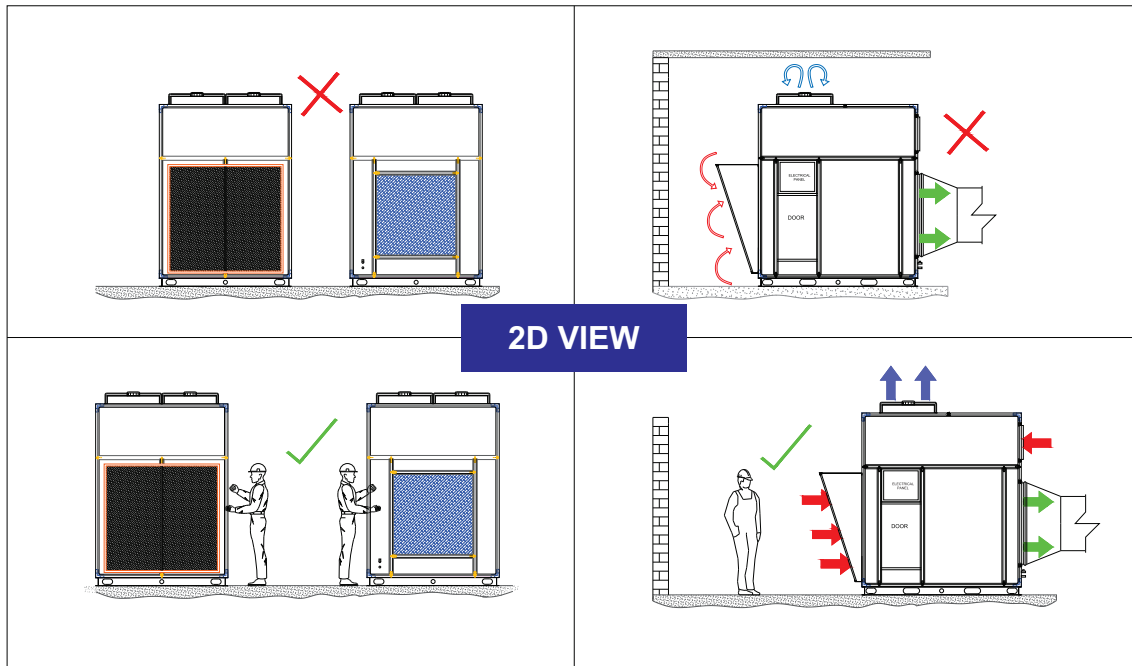
FRONT VIEW



1. LOCATION

The Ecolater cooler should be installed on a solid floor, to avoid resonance, vibration and noise. The unit should be located in an open area, with sufficient space - about 2 meters away from any wall to allow for effective air flow.

The location should be free of airborne pollutants - and away from acidic and explosive environments in particular.



2. PRECAUTIONS

Check the nameplate and confirm the power supply is suitable for the unit
Prevent back flow of water vapor or hot wet air Provide drainage around the unit (fall > 0.8%) around the base of the unit to remove any condensate water or minor over spray Comply with all local Electrical and Building Regulations during the installation.

3. PLUMBING

Select a suitable type and size of water pipe to connect the water inlet and outlet Fix the external water pipes properly. Pipes must not be supported by the tower.

4. ELECTRICAL CONNECTION

Standard power supply is $380 \pm 10\%$, 3-Phase, 50 Hz. If this has been customized to your requirements, the details will be indicated on the unit nameplate as well as at the front of the instruction manual.

For further details, please refer to the Electrical Diagram Drawings provided along with the unit.

NOTE

Foundation design is provided for each project.

Commissioning & Operation guides please refer to the service manual of each product.

For further technical support, please contact us.

			
Al Tazaj Restaurant	Al Romansiah	Best Harvest Trading Co	LSC
			
Gulf Catering Co	Al Romansiah	Imile Logistic	Multi Brands Trading
			
RAQAM Company	ADEX Company	IHCC	Al-Watania Plastic
			
Al-Babain Food	Sahara Mall	Al Jabar Laundry	Al Yusra Fashion
			
Al rashed Food Group	Dar Al Uloom University	White Crystal For Filling	Packing Product Co.
			
Awarid Cosmetics Co.	National Water Company	First Class Aviation	Saudi Eraad Defense
			
Jarir Book Store	Al Karama Food Co	Creation Source Trading	Continental Hotel Riyadh

 مستشفى الرياض riyadh hospital	 برودان Brodan	 Medical Elements العناصر الطبية	 التقدم الطبي Advance Medical
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