



windmason
BREATHE THE FINEST

DESERT MASTER EVAPORATIVE AIR COOLER

For Commercial, Industrial, Residential & Governmental Projects



HVAC & Power Solutions

windmason Arabia Company

شركة مصنع ويندماسون العربية

Desert Master Evaporative Air Cooler



The Desert Master evaporative air cooler is a double air inlet, heavy gauge cooler designed for industrial use.

Distinguishing features have been added to increase the performance and life span of the cooling pads. Well designed body structures add more tensile strength to avoid damages during handling and installations.

Durable, low cost and easy maintenance, water leakage has been minimised. Heavy gauge water tank with corrosion protective coating.

It features vertical cooling pads with an additional external 5 cm layer to extend the life of the remaining 15 cm cooling pads. The first 5 cm layer of the cooling pads is easily replaceable and cost-effective, often clogged with scaling.

The cooler includes a heavy gauge bottom water tank that is fully sealed to prevent leakage. Both the wet areas and the tank are coated to increase their lifespan. The blower is positioned 10-12 cm above the water tank, preventing mist from escaping or lingering near the bottom of the blower.

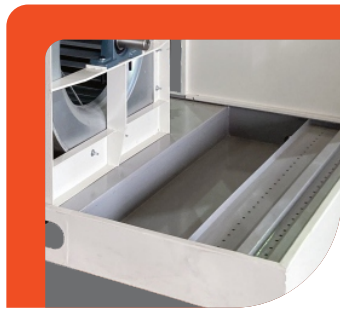
How does it work ?

The Windmason Desert-Master single-stage evaporative cooler cools warm outdoor air (44-45°C) by passing it through vertical wet cooling pads, where it is cooled through water evaporation. The cooled air (24-25°C) is then distributed indoors, creating a more comfortable environment.

While evaporative coolers are effective and eco-friendly cooling solutions, their efficiency depends on the outdoor temperature. It's important to consider these factors and regularly maintain the cooler to ensure optimal performance.

FEATURES

Protective Inner Cover



Experience long-lasting durability with our cooler's innovative design. The multi-part inner protective covering is crafted from high-density polyethylene boards. These boards effectively shield the wet section's body, ensuring that no metal parts come into contact with water. This protective layer prevents corrosive interactions, adding to the longevity of your cooler.

Blower & Blower House



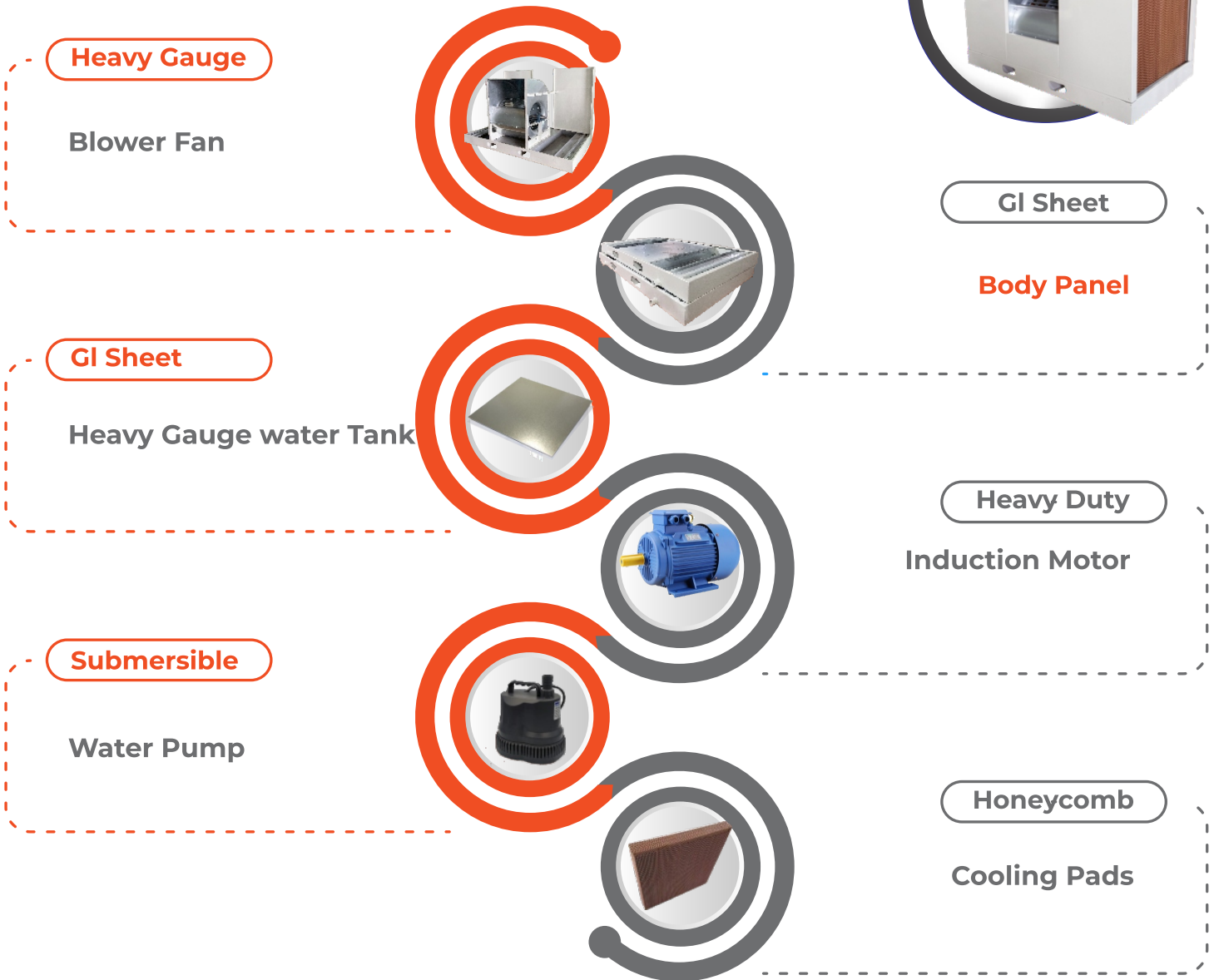
Our cooler boasts a reinforced, self-standing blower house. The blower house features an accurately balanced blower wheel made of heavy-gauge galvanized steel. The solid, robust shaft fits securely into a keyed pulley, providing durability and silent operation with maximum air flow.

Water Distribution



Enjoy maximum cooling efficiency with our specially designed water distribution system. This system ensures the proper delivery of water, evenly wetting the cooling media for optimal cooling performance. Say goodbye to uneven cooling and hello to a refreshing and comfortable environment.

Major Parts



Our Cooling Solutions

Industrial Cooling

Introducing our Desert Master evaporative coolers – designed for high-efficiency comfort, flexibility in design, easy installation, and reliability. Whether it's industrial spaces or large areas, our cooling solutions ensure a comfortable and productive environment.

Commercial Cooling

Tailored for hotels, schools, shops, restaurants, and more, our air conditioning systems provide comfort and economy for medium-sized buildings. Experience the luxury of 100% fresh air, creating a pleasant atmosphere for your business or institution. Stay cool and comfortable with our reliable commercial cooling solutions.

Installation Guidelines



Location:

Place the Desert Master on a solid floor with a base frame to prevent resonance, vibration, and noise. Ensure it's in an open area with approximately 2 meters of space from any wall for effective airflow. The location should be free from airborne pollutants and kept away from acidic or explosive environments.



Precautions:

Check the nameplate to confirm the suitability of the power supply. Avoid backflow of water vapor or hot wet air. Provide proper drainage around the unit (fall > 0.8%) to remove condensate water or minor overspray. Adhere to all local Electrical and Building Regulations during installation.



Plumbing:

Choose a suitable type and size of water pipe for the water inlet and outlet.

Ensure proper fixation of external water pipes, avoiding support by the unit.



Electrical Connection:

The standard power supply is 380V \pm 10%, 3-Phase, 50 Hz. Customizations will be indicated on the unit nameplate and in the instruction manual.

Refer to the Electrical Diagram Drawings provided with the unit for further details.

Note:

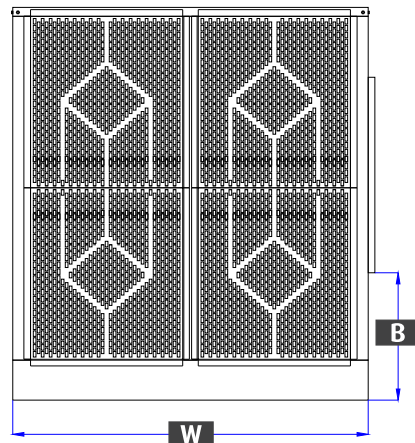
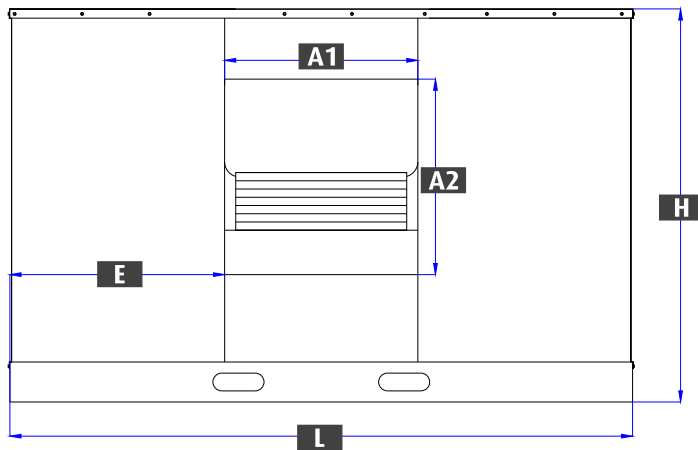
Foundation design is provided for each project.

For commissioning and operation guides, please refer to the service manual of each product.

For additional technical support, feel free to contact us.

PHYSICAL DIMENTION

SIDE MODLE	L (mm)	W (mm)	H (mm)	A1 (mm)	A2 (mm)	E (mm)	B (mm)
DM-3KCFM	1200	1140	1045	470	460	328	438
DM-6KCFM	1300	1200	2885	470	460	365	460
DM-8KCFM	1750	920	1100	560	470	620	590
DM-9KCMF	1750	920	1100	560	470	620	590
DM-12KCFM	2000	1220	1300	690	690	650	585
DM-14KCFM	2200	1220	1300	690	690	650	585
DM-16KCFM	2100	1220	1380	700	700	670	670
DM-18KCFM	2400	1400	1645	800	800	805	610
DM-25KCFM	2550	1500	1635	800	800	880	610
DM-33KCFM	2800	1600	1835	870	870	970	650



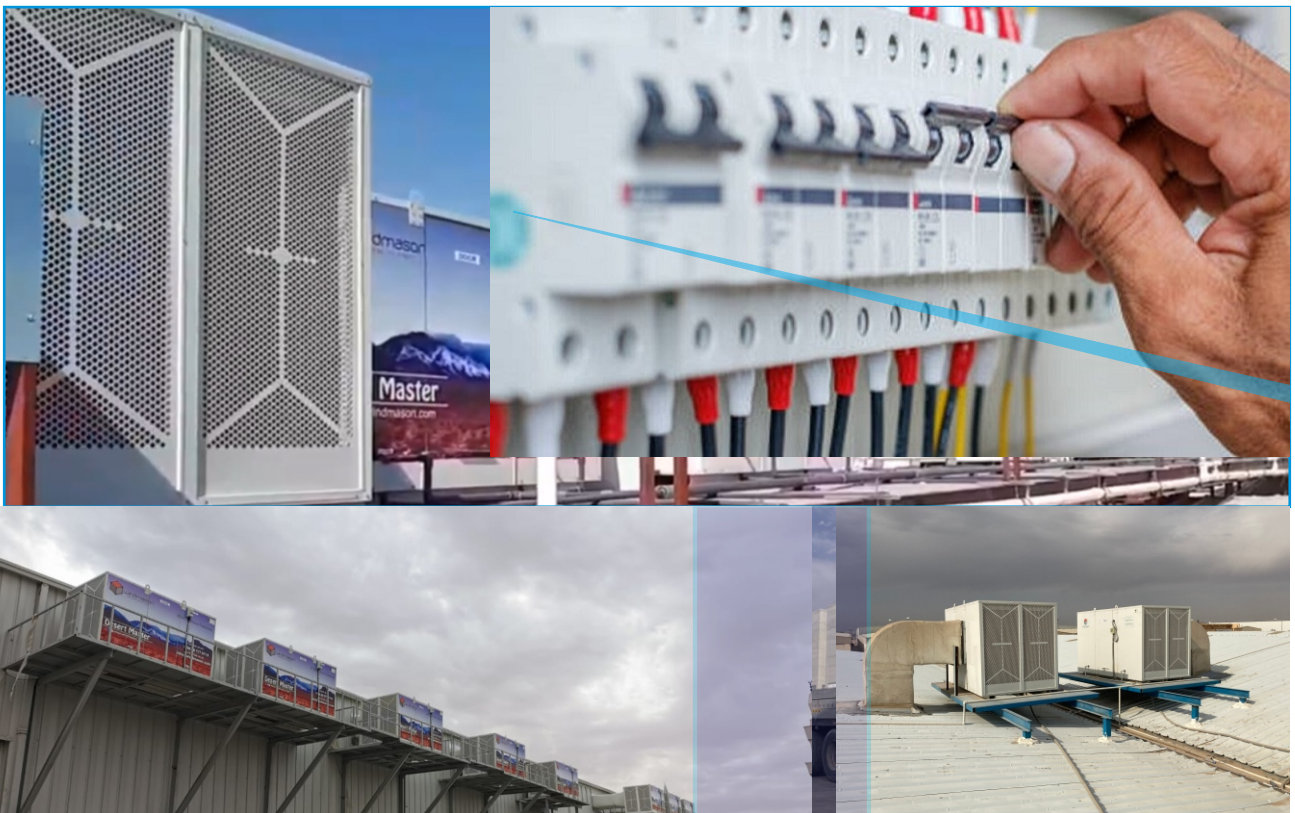
Note:

Due to the continuous development, the dimension of the unit may change, please contact WINDMASON for updates before considering the physical dimensions in your project design.

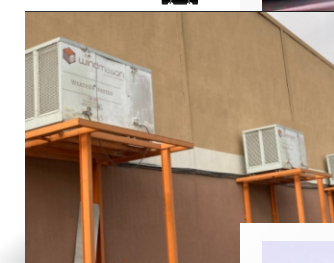
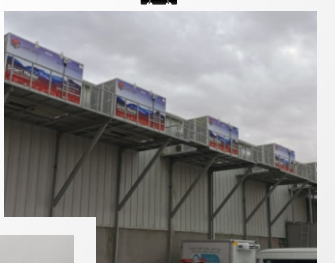
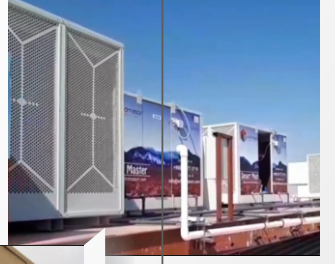
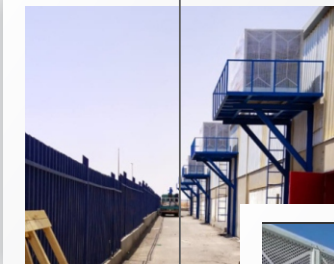
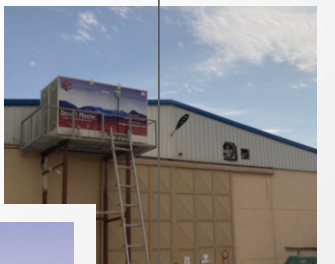
TECHNICAL DATA

MODEL	DM-3KCFM	DM-4KCFM	DM-6KCFM	DM-8KCFM	DM-9KCFM	DM-12KCFM	DM-14KCFM	DM-16KCFM	DM-18KCFM	DM-25KCFM	DM-33KCFM
FEATUREL											
Motor Power	3/4 HP	1 HP	1 HP	1.5 HP	2 HP	3 HP	4 HP	5 HP	7 HP	10 HP	15 HP
Air Flow (cfm)	3000	4000	6000	8000	9000	12000	14000	16500	18500	25000	33000
Blower Fan (Inch)	15 X 15	15 X 15	18 X 18	18 X 18	22 X 22	22 X 22	22 X 22	22 X 22	25 X 25	28 X 28	28 X 28
Power Supply	220V/1Ph	220V/1Ph	220V/1Ph	220V/1Ph	220V/380V /3Ph	220V/380V /3Ph	220V/380V /3Ph	220V/380V /3Ph	220V/380V /3Ph	220V/380V /3Ph	220V/380V /3Ph
Max Current (Amper)	5.0	5.5	5.5	9.0	12 - 7	9.0 - 6.0	11 - 6.0	14 - 8.0	20 - 11	26 - 15	38 - 22
Air intel slide	1	1	2	2	2	2	2	2	2	2	2
Cooling Area (M ² Approximately)	75	100	150	200	225	300	350	412	462	625	825
Water Pump (Specification)	85W	85W	85W	85W	85W	85W	85W	85W	85W	85W	85W
No. Of Water Pump	2	2	4	4	4	4	6	6	6	8	8
Water Consumption (Ltr/Hour)	33	45	70	90	100	135	160	190	210	285	370
Net Weight	92	130	180	215	215	402	465	470	535	572	590

Above mentioned CFM of Air Flow is on the free outlet of the unit without ESP.
 Water Consumption is approximately vary with outdoor Air temperature and humidity.



Quality Services



Installation & Start Up

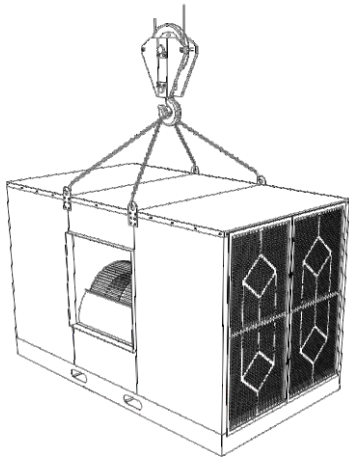
Before attempting to install the Unit, make sure the following preparations have been made: • Assure that the mounting surface is level in all directions, and strong enough to bear the weight of the cooler when in use, remember that when the system fills with water, the cooler will be much heavier than when it is dry. (For operating weight, see the operating weight table)

Make sure you have sufficient equipment for lifting the cooler in place. Make sure the electrical supply matches the requirements on the motor nameplate. • Make sure any ductwork and electrical needs comply with local and national codes.

NOTE: 1- If the bottom pan of the cooler is mounted not level, this will defect the water distribution system in the cooler and so, the cooling quality.

2- Do not locate the cooler near the kitchen exhaust, or pipes, as smells or smoke may be drawn into the unit. Install cooler so only fresh outside air enters the cooling system.

3- Do not drive nails or screws into the bottom of the wet section of the cooler. this will cause a water leak. THIS WILL VOID BODY WARRANTY.



Lifting

For easy of hoisting, lifting brackets have been provided. Assure that lifting equipment is of enough capacity and that all four lift brackets are used when lifting. Use the spreader bar to lift the unit as shown in (FIG.1).

NOTE: Do not to lift in such a way that could cause to bend the lifting brackets.

MODLE	Standard air delivery		Body Weight (kg)	Operation Weight (kg)
	CFM	M. / HR		
DM-3.4HP	3000	5090	75	120
DM-1HP	4000	6787	100	160
DM-1.5HP	6000	10180	150	240
DM-2HP	8000	13573	200	320
DM-3HP	9000	15270	225	360
DM-4HP	12000	20360	300	480
DM-5HP	14000	23753	350	560
DM-75HP	16500	27995	413	660
DM-10HP	18500	31388	463	740
DM-15HP	33000	55990	825	1320

Our key Clients

			
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 Yasra Fashion
			
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@windmason



+966 50 777 0719



Info@windmason.com
www.windmason.com