Product Catalogue

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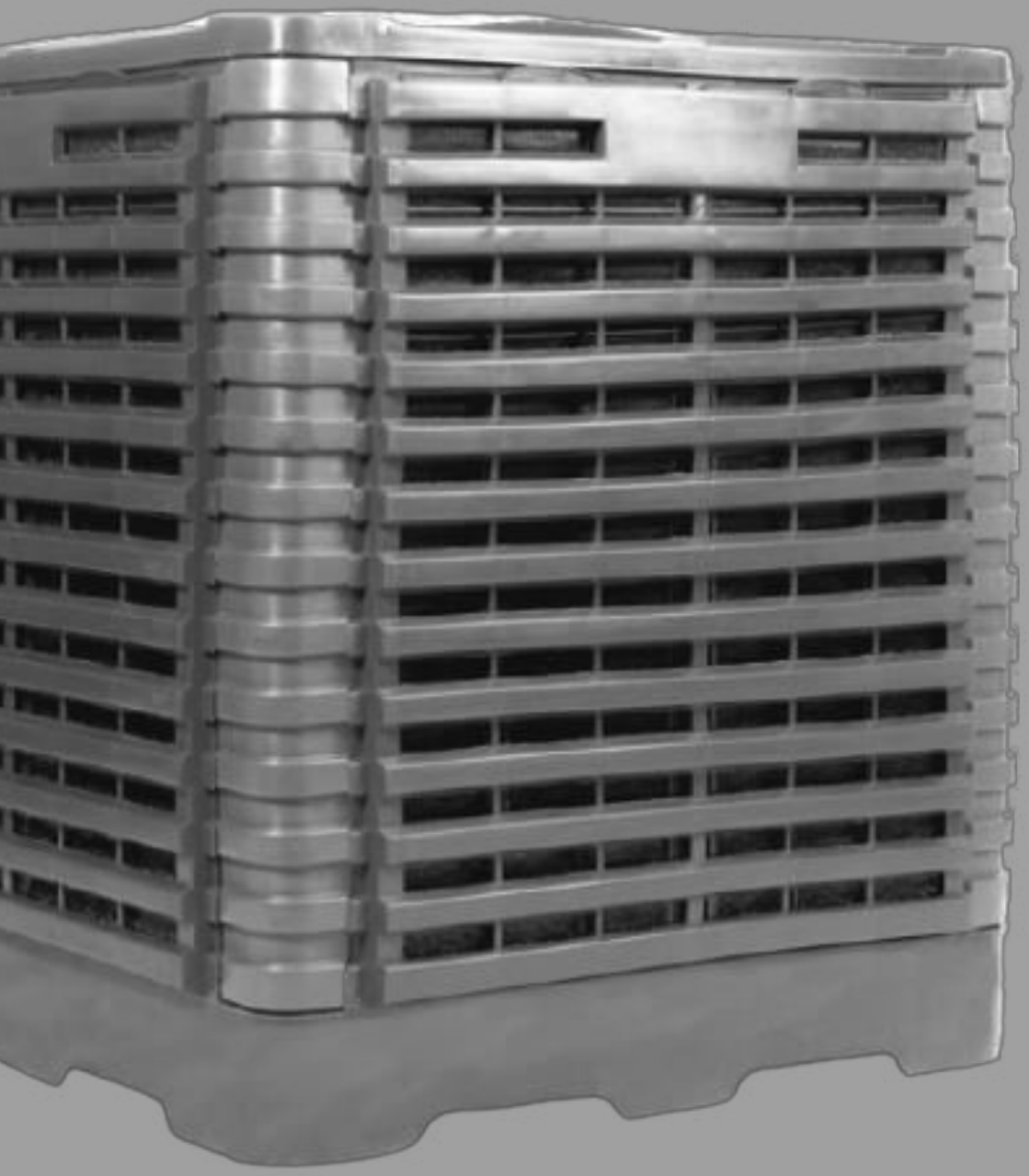
AIR CONDITIONING SYSTEMS

F-EVAP
Evaporative Cooling Device



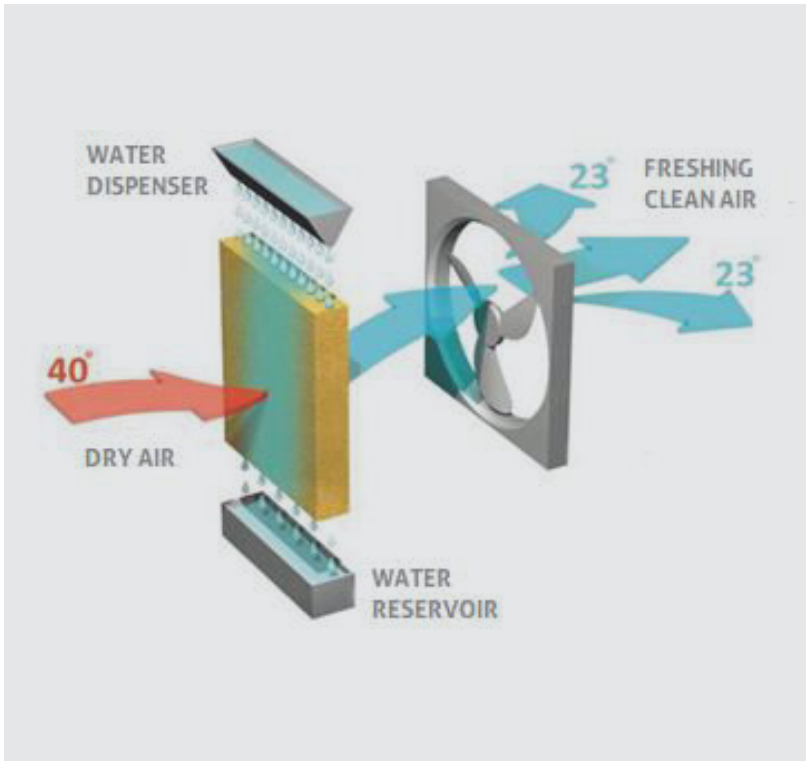
Technical Specifications

Evaporative Cooling Device

Evaporative air conditioning system provide fresh air and cool air to the environment and bu evucuating the existing bad air in the environment, fresh air and cool air are provided to the environment. The cold and fresh air produced by industiral type evaporative cooling units is transferred to the indoor environment through air ducts. Evaporative coolings units are designed for high efficiency, low pressure loss and reliable use for years.

Usage Areas

Evaporative cooling units provide cooling and air conditioning in large closed areas (warehouses, production facilities, hangars) with lower energy consumption than conventional air conditioners. Evaporative cooling devices can be easily mounted on roofs and walls and only needs water to provide cooling.



MODEL	AIR FLOW RATE	MOTOR POWER	EXTERNAL STATİK PRESSURE	CURRENT	ELECTRICAL INFORMATION	FAN DIAMETER	FAN LEVELS	COOLING PAD SURFACE	DRAIN	STORAGE CAPACITY	DIMENSIONS	WEIGHT	OPERATING WEIGHT	DUCT DIMENSIONS
	m^3/h	kW	Pa	A	V / Hz	mm		mm		lt	mm	kg	kg	mm
F-EVAP 20	20.000	1,5	230	7	220-240/50	630	12	(770x870x100)x4	Otomatik	40	1100x1100x1150	75	115	660x660
F-EVAP 30	30.000	3	320	8	380/50	800	12	(940x910x100)x4	Otomatik	80	1300x1300x1200	120	170	90x900
F-EVAP 40	40.000	4	360	10	380/50	800	12	(1000x1050x100)x4	Otomatik	80	1500x1500x1450	120	170	900x900

Capacity Calculation

The cooling capacity of evaporative cooling unit is primarily depends on the inlet air temperature and the absolute humidity in it, but is calculated according to the air flow of the fan inside the unit. This fan flow rate is expressed in terms of m^3/h. As a result of this calculation, the amount of air that the cooling unit will transfer to environment per unit time is determined.

Formula:
Air flow rate of the unit (m^3/h) = The volume of the enclosed environment to be cooled (m^3) x Air change rate (1/h)

Air Change Rates (1/h)				
Definition of Area	Normal Areas	Crowded-Common Areas	High Temperature Areas	Smelly and Dirty Areas
Air Change Rate	20-30	25-40	35-45	44-55

Outdoor Temperature	% Outdoor Relative Humidty								
	%10	%20	%30	%40	%50	%60	%70	%80	%90
10 ·C	3,2 ·C	4 ·C	4,8 ·C	5,6 ·C	6,4 ·C	7,2 ·C	8 ·C	8,6 ·C	9,4 ·C
15 ·C	6,6 ·C	7,1 ·C	8,8 ·C	9,8 ·C	10,8 ·C	11,8 ·C	12,6 ·C	13,4·C	14,3 ·C
20 ·C	10,1 ·C	11,4 ·C	12,8 ·C	13,9 ·C	15,2 ·C	16,2 ·C	17,2 ·C	18,2 ·C	19,2 ·C
25 ·C	13,4 ·C	15 ·C	16,6 ·C	18 ·C	19,4 ·C	20,6 ·C	21,8 ·C	22,9 ·C	24 ·C
30 ·C	16,6 ·C	18,6 ·C	20,4 ·C	22 ·C	23,6 ·C	25 ·C	26,4 ·C	27,7 ·C	28,9 ·C
35 ·C	19,8 ·C	22,2 ·C	24,2 ·C	26,2 ·C	28 ·C	29,6 ·C	31 ·C	32,4 ·C	33,7 ·C
40 ·C	23 ·C	25,6 ·C	28,1 ·C	30,4 ·C	32,3 ·C	33,9 ·C	-	-	-
45 ·C	25,9 ·C	29,2 ·C	32 ·C	34,4 ·C	-	-	-	-	-
50 ·C	29 ·C	32,7 ·C	35,8 ·C	-	-	-	-	-	-

Sample Selection

According to the table above, when the air change rate is selected appropriately, the outdoor air temperature at 30 ·C and 30% humudity, the industrial type evaporative cooling unit can reduce the ambient temperature to 24,2 ·C.

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