

# EVAPORATIVE AIR COOLER

An evaporative air cooler is also called an evaporative ventilator, an evaporative air conditioner or a cooling machine. The product is combined between an exhaust fan and evaporative cooling pads in one equipment.

## BASIC PARAMETERS OF THE COOLER



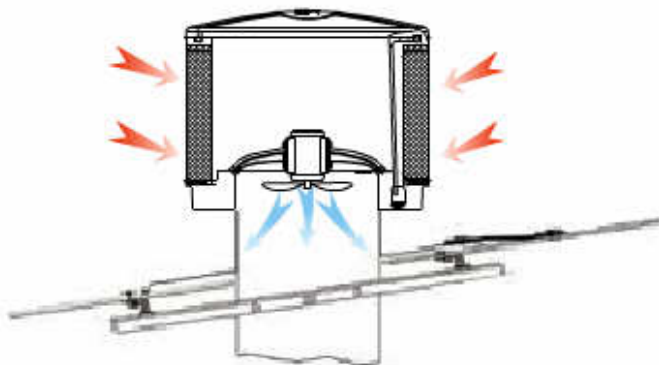
The cooler has bottom outlet  
Power consumption: 1,1 KW  
Voltage/Frequency: 3phase -380V-50 Hz  
Cooling capacity: 18.000m<sup>3</sup>/h  
Pressure of outlet: 160 Pa  
Noise: 65 dB  
Size LxWxH: 1070x1070x1000 mm  
Cover of the cooler is made of PP plastic protecting it from harsh condition of weather and ultraviolet rays.  
Cover area: 80-100 m<sup>2</sup>

## EFFICIENCY OF THE COOLER

The cooler includes four evaporative cooling pads of type 5090 with 100mm thickness. Ventilator's saturation efficiency is 92%. Efficiency of the cooler is shown the following table:

Outdoor air			The air temperature after the pads (the outlet air temperature) (°C)	Inlet and outlet temperature difference (°C)
Temperature (°C)	Humidity (%)	Wet bulb temperature (°C)		
(1)	(2)	(3)	(4)	(5) = (1)-(4)
37	40	25.5	26.4	10.6
37	45	26.7	27.5	9.5
37	50	27.8	28.5	8.5
37	60	29.9	30.5	6.5

## PRINCIPLED OPERATION OF THE COOLER



The cooler operates under the principle of evaporation. The process treating temperature-humidity between water and air is happened in the space of machine room by an axial fan with large airflow, CeLpads and a water pump. Fresh and cool air in the machine room will be pumped into a workshop by the axial fan through the system of wind pipeline. Dry and hot air and dust inside the workshop is pushed out by differential pressure.