

PC

ESAC™ Evaporative coolers



ESAC™ PC evaporative cooler series is the smallest in our range. This unit is suitable for cooling areas up to 150 m², which doesn't have a set ventilation or climate control. The PC4T is a unique unit which combines cost effective cooling, both in and outdoors. Due to its compact and flexible design it is possible to use either integral tank for up to 8 hours running, or connect the unit to a water supply. The PC series creates a comfortable climate with low noise in areas where alternatives are very costly.

Theoretical principle

Evaporative cooling is an adiabatic process at constant enthalpy. It utilises the exchange of energy between water and air; the energy needed to make the water evaporate is taken from the air, thus reducing the air temperature.

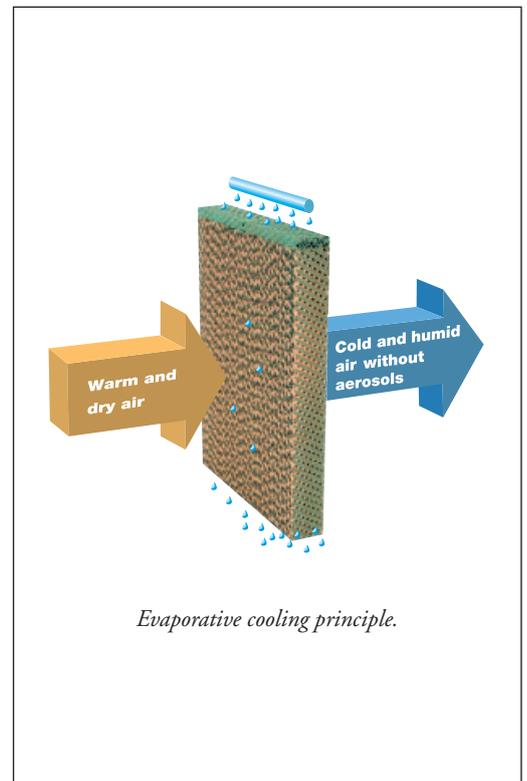
The energy in the air can be divided into two parts: Sensible heat, which is the one we perceive and is quantified by measuring the air temperature; Latent heat, the energy which is needed to allow the water in the air to evaporate.

The PC evaporative coolers system increases the latent heat and decreases the sensible heat, with very little need for external energy.

EQUIPMENT

PC4T

- Extremely low running cost
- Low installation and maintenance cost
- Low noise
- Easy to move
- Can be connected to a water supply or run from the integral tank
- Very simple and economical maintenance
- Environmentally friendly



Evaporative cooling principle.

How it works

ESAC™ evaporative coolers use CELdek® evaporative cooling pads as media. A system of water distribution and a pump keep the pad continuously wet. Inside the machine is a large axial

fan which sucks the air from the outside through the pad. When the air goes through the pad which is saturated the air gets cooler. The cool air is then forced by the fan into the premises.

Order information

PC4T-X e.g., PC4T-UD8001

Code for diffuser.

Technical specifications

PC code	Maximum airflow m ³ /h	Electrical power consumption W/A	Dimensions (H×W×D) mm	Weight (w/o water)* kg
PC4T	4,200	700/6.0	1,660×780×850	100

*) Weight with water: +60 kg, PC 4T water tank volume = 50 L.

Power supply 230 VAC single phase 50 Hz.

Cooling capacity

Ambient temp. C°	Ambient relative humidity								
	20%	25%	30%	35%	40%	45%	50%	55%	60%
	Temperature in °C after cooling								
30	19.9	20.8	21.2	22.1	22.9	23.5	24.3	25.0	25.6
35	23.6	24.0	25.1	26.1	27.1	27.9	28.7	29.4	30.2
40	27.3	27.9	29.0	30.1	31.2	32.2	33.1	33.9	34.7

Diffusers for the portable coolers

Two different diffusers can be mounted on the top of the unit to achieve the required airflow direction: either spreading the air through 360° or directing it through a 90° elbow.

Description	Dimensions (H×W×D) mm	Product code
Diffuser with 8 outlets	350×825×825	UD8001
90° diffuser, see first page.	530×450×460	SG9000



Diffuser with 8 outlets, UD8001.

ESAC is developed and produced by Munters Italy S.p.A., Italy.



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