EFFICIENT COOLING

Evaporative Cooler
Condair **ME**

Humidification and Evaporative Cooling

condair

Efficient Evaporative Cooling

Equal Distribution of Water
The distribution panels above the evaporation bodies ensure constant, homogeneous distribution of the humidifying water.

Freely Selectable Media
With evaporation bodies, you can choose between various different media which can be selected based on the system situation.


Glass Fiber


DI Water-Resistant

Modular Hydraulics Unit
The evaporative cooler has a unique, highly efficient, flexible pumping concept which can be assembled inside or outside the channel.


Internal Assembly


External Assembly

Touch Controller
The innovative control allows intuitive operation of the device, excellent transparency of function, and resource-friendly operation.

Perfect Integration into Building Management Systems
May be connected to any current BMS system (e.g. Modbus and BACnet).

Modbus®

BACnet

Removable Evaporation Bodies
If the evaporative cooler is not needed for an extended period of time (e.g. during the heating season), the carrier media can be removed and air resistance eliminated.

Assembly Outside the Channel

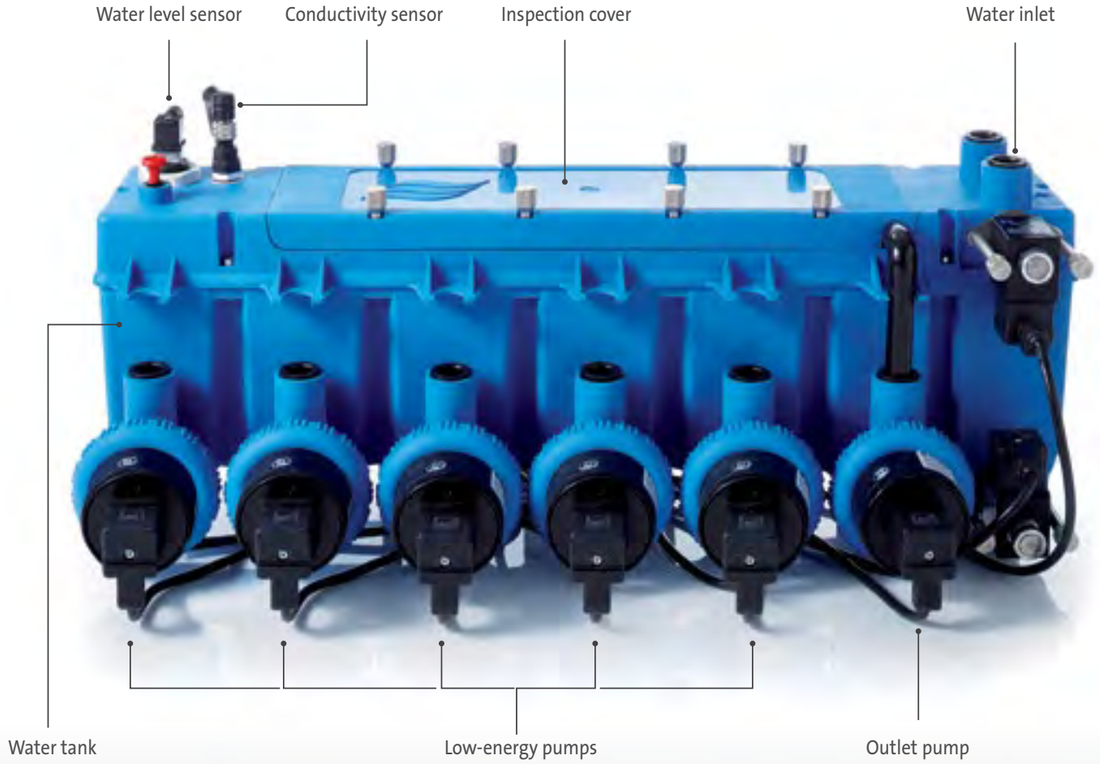
Condair **ME**

The Condair ME evaporative cooler is specially designed to meet the requirements of indirect exhaust air cooling. These include a simple structure, extremely economical operation, and durable components. The patented humidifier box achieves optimum values in its vaporizing effect.

Modular Hydraulics Unit

Unlike conventional evaporative coolers, the Condair ME is not based on a high-performance central pump but instead uses several smaller pumps which can be activated or deactivated as needed. This modular structure enables highly energy saving operation and makes the energy-intensive partial load operation of a central pump, which has to cover the entire output spectrum, superfluous.

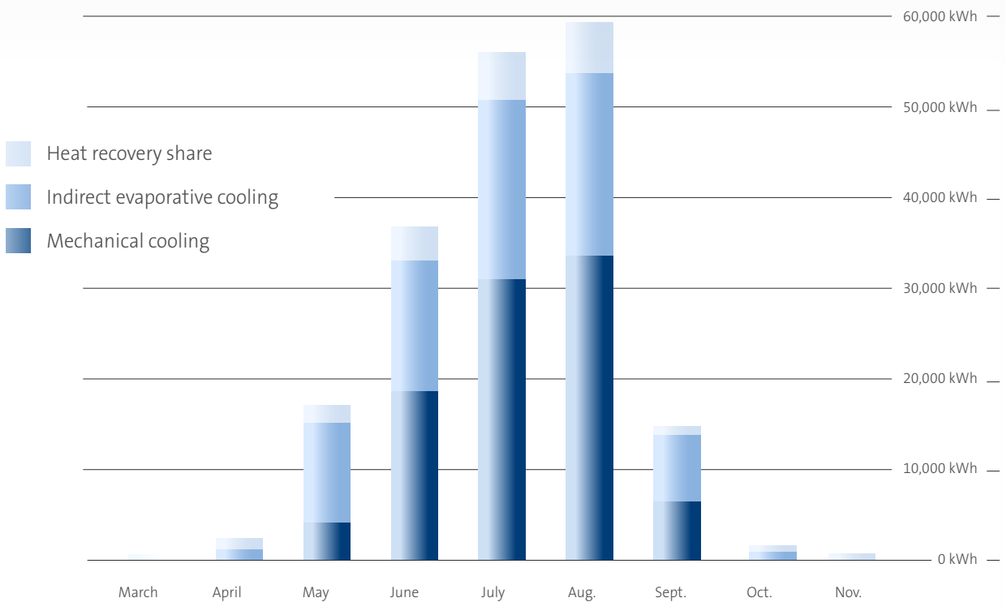
The hydraulics unit can either be attached inside the air conditioning device or outside on the wall of the device.



Patented evaporation bodies

DI water-resistant medium
The ideal medium for low-maintenance, efficient operation of the system. The medium is free from glass fibers. The entry of microsplitters or glass fiber particles can therefore be ruled out.

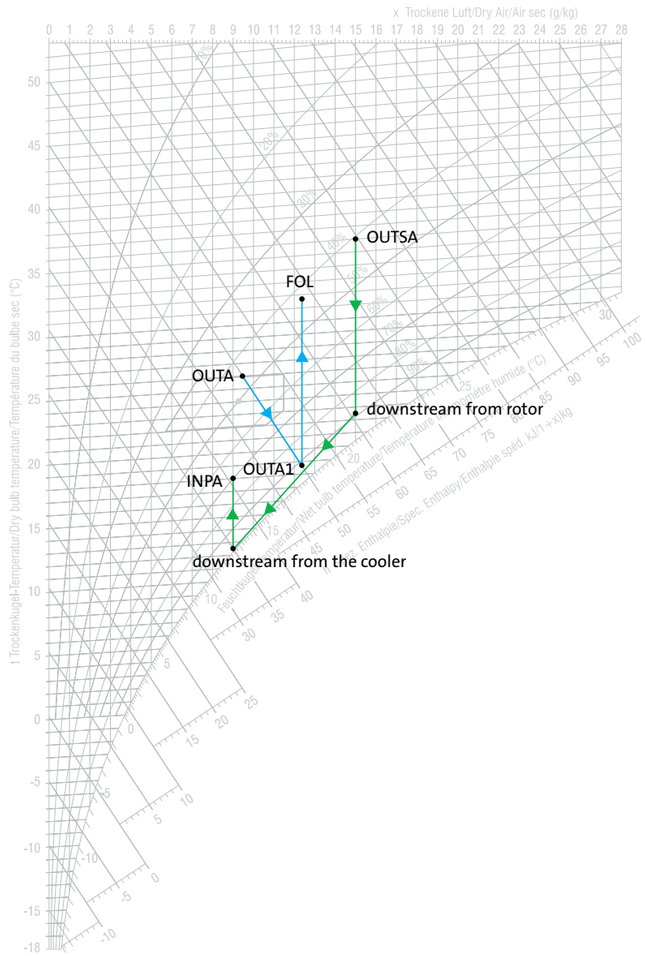
Glass fiber medium
The use of a glass fiber medium makes sense only if drinking water or soft water is available or wear does not need to be taken into account due to short usage intervals.



Graphical representation of energy contributions produced for the cooling of buildings in the sample air conditioning system. Calculated using the Coolblue 2.0 software tool from Condair.

Energy Detection with Building Simulation Using Condair Coolblue®

Representation of indirect evaporative cooling in h,x diagram.



Indirect evaporative cooling in air conditioning systems is one way of generating regenerative cooling capacity.

The reduction of the capacity and power requirement of a cooling machine for mechanical cooling through indirect evaporative cooling is based on the thermodynamic principle that air cools when it is humidified through the evaporation of water.
The evaporation heat needed for the phase change of water is removed from the air and causes the desired cooling.

Energy Detection
The potential energy savings of this efficiency measure can be determined using an energy simulation calculation based on exemplary system parameters and meteorological data for the location.

The cooling effect achieved in the output air is transferred to the input air. Conventional cooling machines and cooling batteries can therefore be designed to be significantly smaller and more cost-effective. In addition to this, the ongoing operating costs for building cooling are reduced significantly.

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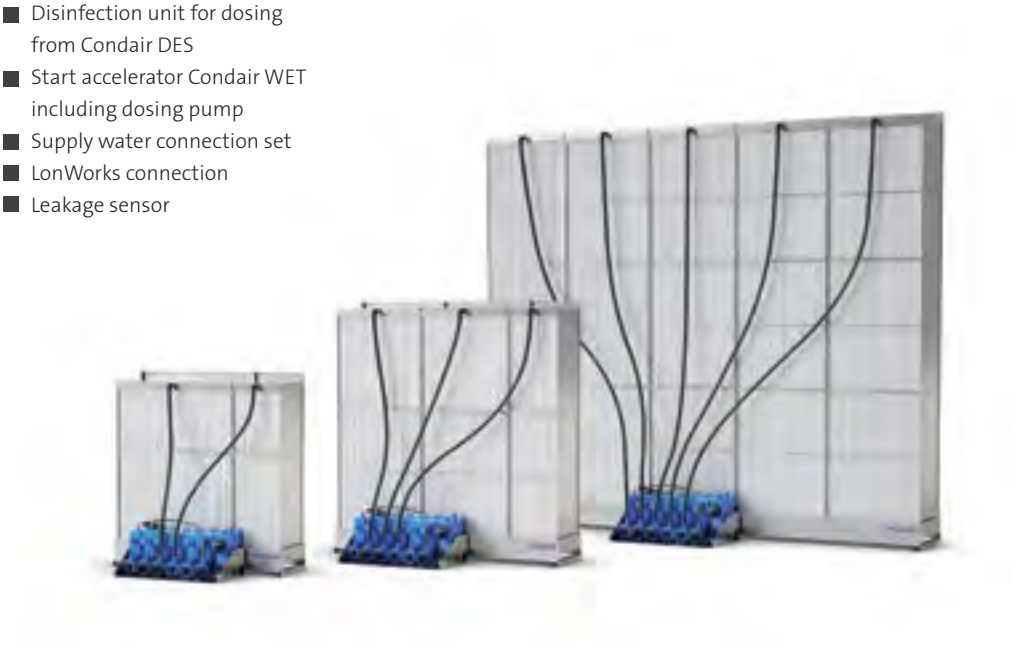
Standard model

- DI Water-Resistant
- Low-energy pumps
- Shortest construction length
- Remote signaling of operational readiness / operating mode / maintenance / faults
- Touch screen operation
- Self-diagnostic system
- Real-time clock
  Modbus and BACnet connection

Options

- Conductivity monitoring for conduction-guided water blowdown
- Supply water connection set
- Channel sealing sheet made of stainless steel
- UV lamp for the water basin
- Disinfection unit for dosing from Condair DES
- Start accelerator Condair WET including dosing pump
- Supply water connection set
- LonWorks connection
- Leakage sensor



Technical Data

Condair ME	
Standard installation length (output-dependent)	695 to 795 mm
Permissible air speed	
without droplet separator	max. 3.5 m/s
with droplet separator	max. 4.5 m/s
Permissible water connection pressure	2–10 bar(g)
Permissible water temperature	5–45°C
Voltage supply	230 V / 1 Ph / 50–60 Hz
Degree of protection of controller	IP 54
Degree of protection of circulation pump (Reflow)	IP 54
Degree of protection of valves	IP 65
Fire safety class of humidifier box	DIN EN 53438 class F1
Certification mark	CE