



# CONDAIR MC

In-duct evaporative humidifier  
and cooler



# Humidification and cooling with reliable hygiene control and quality construction

## Evaporative module

Mains or RO water is pumped to the top of the evaporative module and flows down the surface of the evaporative cassettes. As air passes through the module, it is humidified and cooled.

## High quality evaporative cassettes



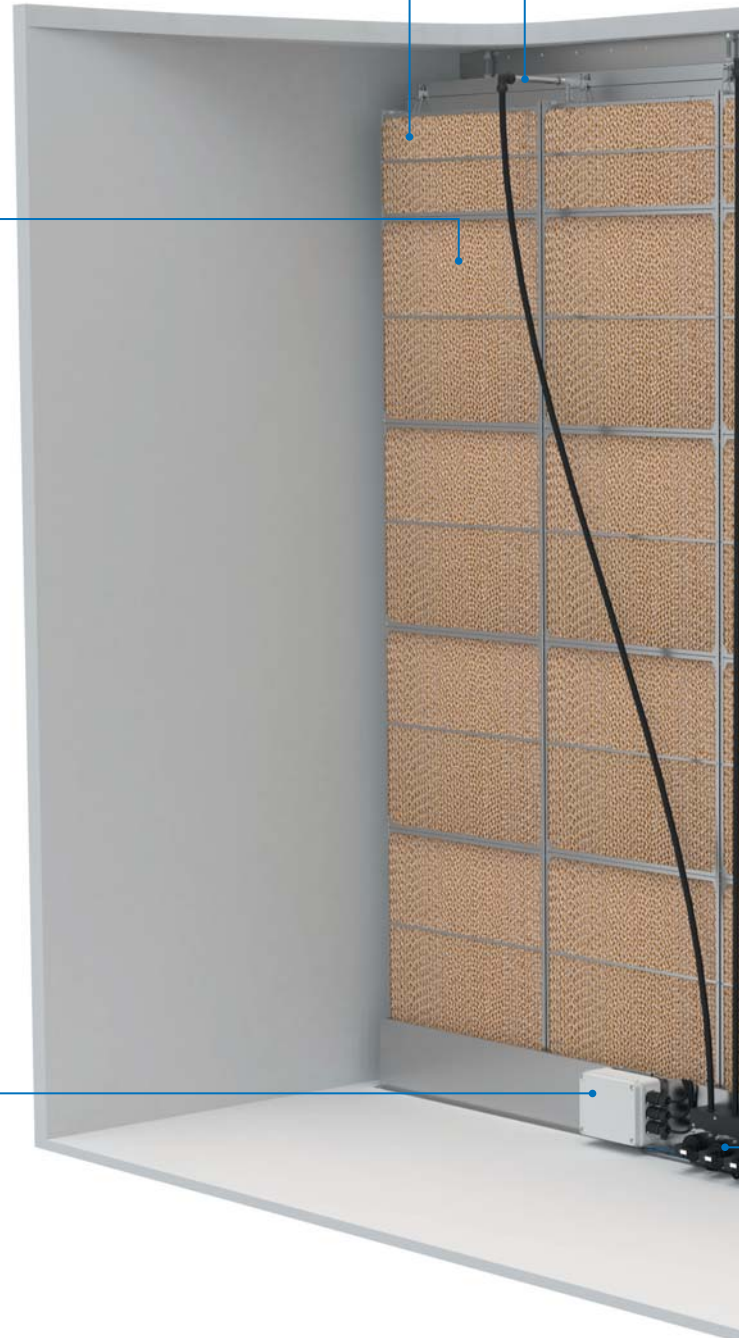
Long lasting and efficient glass fibre media is housed within a stainless steel cassette frame. Integrated antibacterial additives provide hygienic operation. Modular construction offers easy on-site installation. The robust cassettes have been independently certified to be non-particle releasing and to Euro Class A2-S2-D0 (UL 900) fire rating.

## Flush and drain hygiene control

Regular flush and drain cycles ensure water in the system is fresh and hygienic. Water is also automatically drained during non-operation to avoid the possibility of stagnation.

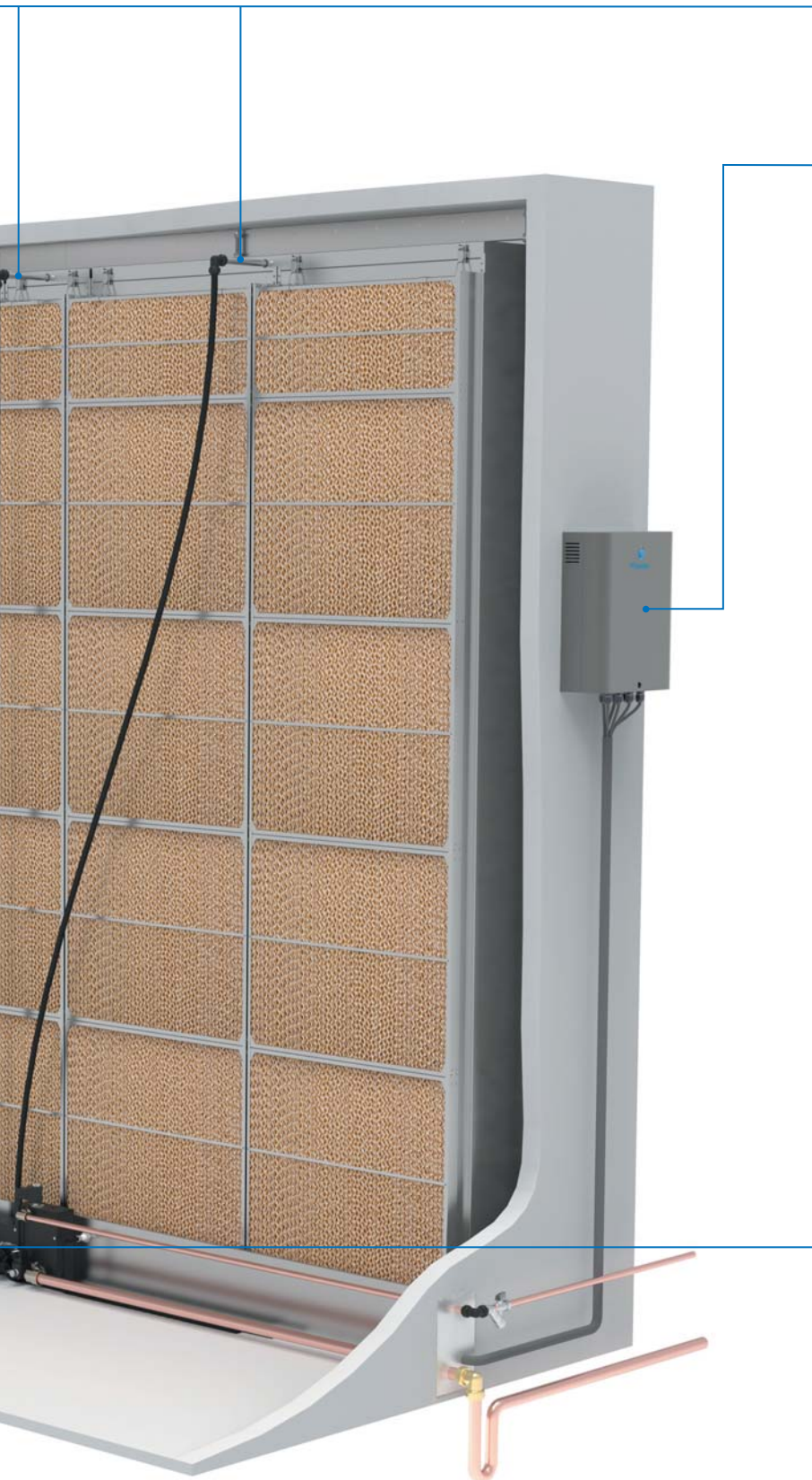
## Submerged UV hygiene option

Ultraviolet light kills micro-organisms in the drain tray to maintain hygienic operation.



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### Multi-stage control as standard

Water is supplied to the evaporative module in up to three stages, depending on humidity demand, for more accurate humidity control.

### Control panel

A multi-coloured LED provides operational status information and fault diagnostics. Flow control can be adjusted electronically, without needing to make mechanical alterations to valves. The humidifier offers BMS connectivity via Modbus.

### Hydraulic unit



Incorporates up to three electronically controlled pumps, stainless steel valves and moulded plug connections, avoiding any need for wiring in the AHU. As the system operates at low voltage, it is safer for installation or maintenance technicians.

### Low energy, long-life pumps



Magnetically driven impellers, with frictionless motion, give an extremely long service lifetime and are almost silent in operation. As the humidifier has multiple low energy pumps, it uses less energy than single pump systems. Operating energy consumption is proportional to output, ranging from just 74 to 145W.

The Condair MC is an in-duct evaporative humidifier that provides low energy humidification and cooling. A single unit can offer up to 360kg/h of humidity and approximately

245kW/h of adiabatic cooling to an air handling unit.

The humidifier incorporates quality components, such as long-lasting glass fibre evaporative media and stainless steel construction. It has a PCB control

panel and many integrated hygiene control features, such as anti-microbial impregnated media, UV hygiene options, and flush and drain cycles.

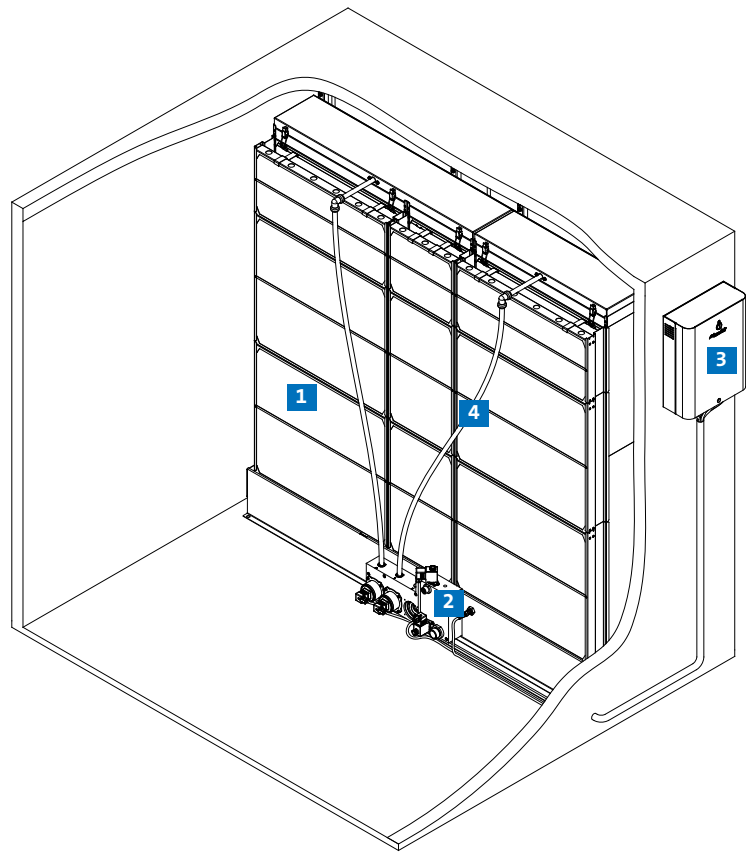
Intelligent modular design makes installation easy.

## Typical system overview

- 1 Evaporative module (flat packed) stainless steel 304
- 2 Fully assembled hydraulic unit
- 3 Control panel
- 4 Inter-connecting hoses

## Options

- Submerged UV hygiene control
- Evaporative module blanking



## Evaporative cassette options

| Evaporative media | Depth (mm) | Efficiency (%) | Fire rating                   | Max media velocity (m/s)  |                        |
|-------------------|------------|----------------|-------------------------------|---------------------------|------------------------|
|                   |            |                |                               | Without droplet separator | With droplet separator |
| Glass fibre       | 150        | 85             | Euro Class A2-S2-D0<br>UL 900 | 3.5                       | 4.5                    |
|                   | 200        | 95             |                               |                           |                        |

## Technical data

| Evaporative module dimensions (mm) | Admissible water supply pressure (bar) | Power supply (Vac   Ph   Hz) | Power consumption (W) | Control panel IP rating |
|------------------------------------|----------------------------------------|------------------------------|-----------------------|-------------------------|
| W: 600 – 3,000<br>H: 750 – 3,000   | 2 – 5                                  | 110 – 250   1   50/60        | 74 – 145              | IP2X                    |