

CREC (Computer Room Evaporative Cooling) Controls

EcoCooling CREC control systems are designed for environments where additional control is required (e.g data centres, pharmaceutical warehouses). Controls are developed around clients bespoke climate and connectivity requirements. The control systems utilise Crouzet (a Schneider partner) PLC's and have been developed by EcoCooling in-house over the last 10 years to optimise both the energy savings and performance of EcoCooling's evaporative cooler range.

Optimising Performance of EcoCoolers

EcoCooling CREC (Computer Room Evaporative Cooling) control systems operate in different modes depending on the ambient conditions. This maximises the EcoCoolers' efficiency and performance.

- **Ventilation:** Energy efficient EC fans move fresh air through the area being cooled to transport heat away.
- **Attemperation:** The EcoCooling control system automatically mixes hot exhaust air with cold external air to supply air at a constant temperature.
- **Evaporative Cooling:** Air is moved over a wetted cooling pad, the air temperature is reduced as the water evaporates

Why Use EcoCooling Control Systems?



DYNAMIC CONTROL:

Clients specify both temperature and humidity parameters to ensure their cooling environments are 100% compliant with industry regulations.



TEMPERATURE CONTROL

EcoCooling systems can provide supply air temperatures below 25°C all year round in the UK. Control systems provide close control (+/-1°C) and a large percentage of the year 16°C supply air temperature delivery is achievable.



HUMIDITY CONTROL

CREC control systems can automatically adjust supply temperatures to control humidity or transfer the cooling to back up systems if the humidity levels exceed the preset parameters.



BESPOKE SYSTEMS:

We work with our clients to build a control system around their requirements and monitoring needs.

LOW COST:

An EcoCooling control system can be as little as 10% of the cost of an alternative with a mainstream suppliers.

CONNECTIVITY:

All our control systems are designed to easily communicate with major BMS and fire suppression systems.

Key Features



- Versatile Communication Options: Modbus TCP/IP allows for easy links into most major BMS systems and an in built VNC server allows the HMI to be viewed remotely on most mobile phones. EcoCooling can assist with the setup of SNMP monitoring of the CREC controls system. (e.g. Provide sample scripts)
- Resilience: All systems are 'fail-safe' and incorporate manual control and back-up power options to ensure fans may be run independently if communication with the PLC is lost.
- Redundancy: All key sensors are duplicated and refrigeration can be automatically activated as a backup option.
- Alarm Notification: The control system automatically notifies the BMS system in the event of a problem. Email notification is also available on request. The control system is directly linked to the fire alarm, when activated it automatically closes fire dampers and switches on the backup.
- Historical Data and Event Logging: The HMI can log and present different variables as a trend display. Chosen data can be stored on the HMI for download at a later point via USB. This data can also be emailed after a fixed time interval chosen by the user.
- Remote Commissioning: EcoCooling offer a remote commissioning service, saving time and money, particularly in foreign locations.

Legionnaires

EcoCooling's process control system ensures the risk of legionella is kept to a minimum. The main risk factors for legionella formation have all been addressed in the design of the control systems. For more information and risk assessment forms please contact EcoCooling directly.

Commissioning Service

EcoCooling offer a commissioning service which should be completed after the installation of any EcoCooling units using the CREC control system. Parameters within the software will be set to client specifications and energy use optimised during the service. Commissioning can also be performed remotely.

About EcoCooling

- ❖ Established in 2002, EcoCooling are the largest manufacturer and distributor of fresh air direct evaporative coolers in the UK, with over 3,000 installations worldwide.
- ❖ Based in Suffolk, EcoCooling manufacturer the ECT ranges in the UK and have over 5,000sq ft of warehouse and manufacturing space.
- ❖ EcoCooling are credited with revolutionising the control systems required to use direct evaporative cooling in IT environments. The in-house R&D department drives to incorporate the latest energy efficient technologies into all product ranges, ensuring our clients have some of the most innovative ventilation and cooling systems in the world. This focus on innovation has also resulted in EcoCooling holding a number of patents for fresh air technologies.
- ❖ Our complimentary in-house design advice service capitalises on our vast industry experience to work closely with consultants and clients to help optimise EcoCooling technology for their prospective installations.
- ❖ EcoCooling products and control systems are designed to be used across the IT industry. Specific applications include data centres, UPS and comms room cooling.
- ❖ Thinking about an installation? Seminars, case studies and client testimonials are available on our YouTube page.
- ❖ Would you like more information? Contact sales@ecocooling.org to arrange a call with one of our technical sales managers to discuss your specific requirements.