



FC10 Control System

Free Air Cooling Systems



FC10-CS MODEL

The FC10-CS is a fully packaged stand-alone control system designed to integrate DAQS freecooling systems with existing customer mechanical cooling systems.

The system is complete with electronic microprocessor controller and display / keypad. It is fully factory pre-wired, tested and mounted in a wall-mount enclosure. The system is pre-loaded with application software.

The FC10-CS monitors In-Room Temperature and Humidity levels, comparing these levels against user determined T/H Setpoints.

When cooling is required, the system checks the Outdoor Temperature to determine if Freecooling Capacity is available. If so, DX/Mechanical Cooling is disabled and Freecooling is enabled. The Freecooling units will modulate to maintain Room Setpoint.

Room Humidity Control during Freecooling is controlled on a bandwidth basis – e.g. 40-60% R.H. If, during Freecooling operation, the Room R.H levels exceeds the pre-set bandwidth, Freecooling is disabled and DX cooling enabled.

In the event of any serious alarm during Freecooling operation, control is always returned to the DX/Mechanical system

APPLICATIONS

- Data Centres
- Remote Plant Rooms
- Switch Rooms
- Telecom Base Stations
- Control Rooms
- Industrial Process Rooms

STANDARD CONFIGURATION

- **Digital Inputs:** Fan Overload 1 and 2, Airflow Switch, Filter Clog Switch, Remote On/Off Switch and High Room Temperature Thermostat.
- **Analogue Inputs:** Room Temperature, Outdoor Temperature and Room Humidity.
- **Digital Outputs:** FC Damper On/Off, Data Centre DX Unit On/Off, General Alarm and Critical Alarm
- **Analogue Outputs:** FC Fan ramp - 0-10VDC and FC Damper ramp – 0-10VDC (optional)

CONTACT OUR SALES TEAMS:

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TECHNICAL DATA

FC10-CS			
Dimensions / Weight	400 H x 400 W x 150 D	11 kgs	
CPU Type	16 Bit	14 MHz	
Program Memory	1 MB (Flash) at 16 Bit		
Data Memory	128 kB (Static RAM) at 8 Bit		
Analogue Inputs	4 no.		
Analogue Outputs	3 no.		
Digital Inputs	6 no.		
Digital Outputs	5 no.		
Max. Power Input	230 / 1/50+PE	0.4 Amps	

OPTIONS

- Additional I/O (multiple room T/H sensors etc.) can be incorporated as required by the application
- Filter Pressure Transducer
- A wide range of BMS protocols are supported for connectivity with customer building management systems

