

Refrigeration Control

The EC2 is a universal controller for refrigeration applications which provides display and control functionality within a single piece of hardware. The controller is simple to mount and requires minimal set-up to get started. Combine this simplicity with the advanced control features available and you have a unique and extremely versatile product.



The EC2 platform is available in various models to suit a range of commercial refrigeration applications.

EC2-21x	Case/Coldroom control with TEV
EC2-31x	Case/Coldroom control with PWM valve
EC2-51x	Condensing unit control for 2 comps/2 Fans
EC2-54x	Condensing unit control for 2 comps/VSD Fans
EC2-74x	Condenser controller for up to 4 Fans
EC2-74x	Condenser controller with Fan Speed Control

Key Features

- PWM valve control for superheat regulation
- Thermostat modulation
- Intelligent defrost management
- Up to 5 temperature sensor inputs
- Fans, defrost and lighting control
- Standalone capability
- Configurable across network or via keypad and IR hand held
- Day/Night setpoints
- Ethernet or Echelon network interface

EC2-2 & EC2-3 Models

For temperature monitoring and control, the EC2 features five temperature inputs for connection to discharge air, return air, coil inlet, coil outlet and defrost termination. The EC2-2xx series controllers provide thermostat regulation and would be used in conjunction with a mechanical TEV whilst the EC2 3x series controllers operate a pulse width modulating valve.

The control algorithms within the EC2-3xx offer both 'fixed mode' and 'adaptive mode' superheat control which maximise performance and minimises energy consumption. Defrost cycles are initiated by the EC2 which can support on-cycle, electric and saturated vapour type defrosting. The 'demand defrost' feature within the EC2 enables the controller to manage defrosting more effectively by determining when a defrost is required and hence increasing energy efficiency.

A 'Fans Only' feature is also available which can be set locally or remotely across the network. In addition to relays to control the Fans, and Defrost an auxiliary output is available which is typically used to switch case lighting.

Network Capabilities

Network connection enables the controllers to communicate with each other or to third party management devices such as the Einstein or a monitoring server/PC. The EC2 can be supplied as either a LonWorks device to communicate across an Echelon RS485 network or alternatively as a TCP/IP device operating on an Ethernet network. The TCP/IP models generate HTML pages which can be viewed through a standard web browser and also offer temperature logging at the device.



