
SAFETY FEATURES OF THE PRODUCTS

The Smartcool ESM™ and ECO3™ are designed with a number of safety features to protect the equipment it will be installed on as well as the control of temperature within the controlled space that the equipment services.

Manual Bypass

At any time, through a few keystrokes on the ESM™ control panel or a single button hold on the ECO3™, any or all channels can be bypassed to return the control of the system to the master controller. This feature allows the system to be turned off during servicing of the equipment or in cases where faulty equipment has reduced cooling capacity below acceptable levels.

Automatic Override

Built into the ESM™ is a programmable setting and the ECO3™ has a built in function to monitor controlled space conditions and automatically remove the ESM™ or ECO3™ from controlling the system. The primary controller then has the ability to do whatever it can to return temperatures to normal. These should be rare occurrences and, almost always can be tied back to equipment malfunction within the existing plant. The ESM™ or ECO3™ will not return to controlling the system until such time as conditions have been returned to normal.

Circuit Protection

The ESM™ Network Control Module and the ECO3™ are powered by low voltage (24 VAC) and the System Interface Modules only have 12 VDC to the top circuit board. This ensures that no voltage spikes can be introduced to the system from the ESM™ or the ECO3™. Additionally, the System Interface Modules and ECO3™ Dual have two completely independent channels for the control voltage signal to pass through. A fuse for each channel is also installed which ensures any spikes sent down the line will not pass the ESM™ or ECO3™ and affect any pieces of the plant down line.

Additionally, both the ESM™ and the ECO3™ are installed within the control circuit of the system and do not directly turn compressors on or off. This function continues to be performed by the contactors or the solenoids built into the existing system.

Equipment Warranty

The proprietary software within the ESM™ and ECO3™ are specifically designed to ensure that compressor cycles and minimum run and off times are kept well within manufacturer recommended guidelines. Smartcool has received letters in the past from manufacturers indicating this and has never had a claim in the history of the product for any issues. The third party testing that has been performed on the product also indicates improvement of cycle rates and times.

Insurance

Smartcool maintains a significant liability insurance policy on our products to assure Customers of any risk there might be in the installation of our product. In addition, Smartcool Certified Installers are required to maintain a large insurance to guarantee their installation work.

For more information, contact your local Smartcool representative or contact Smartcool directly.