



KE2 Evaporator Efficiency

Features and Benefits

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- up to 15 - 50% system energy savings over mechanical controls
- energy savings validated by third parties, including Ameren Missouri, Fisher Nickel, Cascade Energy, BC Hydro and more
- up to 87% reduction in defrost cycles over conventional methods - eliminates unnecessary defrosts associated with time based alternatives
- payback regularly 24 months or less
- maximizes energy efficiency with less compressor run time resulting from fewer and shorter defrosts
- eliminates ice formation on floors and ceilings associated with defrost cycles
- eliminates excessive temperatures found with conventional defrost cycles
- re-humidification of conditioned space to increase product shelf life
- controls evaporator fans, room temperature, EEV, compressor/liquid line solenoid, defrost heaters, multiple alarms
- eliminates need for defrost time clock, room thermostat, and defrost termination device (Klixon®)
- communicates to PC, smart phone or tablet computer allowing control of the KE2 Evap remotely, wherever internet service is available.
- receive alarm alerts/text message right to your phone, computer, or tablet
- optional data logging provides last 30 days of data in 10 minute intervals useful for verification of food safety and troubleshooting

Applications:

- walk-in cooler
- walk-in freezers
- meat prep rooms
- refrigerated warehouses
- closed door display cases
- blast freezers





KE2 Evaporator Efficiency (KE2 Evap) delivers an average payback of less than 24 months, here's how:

KE2 Evap provides precise control of multiple system components reducing defrosts by up to 87%, and eliminating the need for separate controller, defrost time clock, room thermostat, and defrost termination device ("Klixon®") - saving money on component costs, installation time, and energy usage.

And you can stay on top of the system without staying with the system with our KE2 MasterView interface that allows you to monitor and control the KE2 Evap controller remotely, wherever there's an internet connection. And receive text /e-mail alerts to your phone, tablet or computer so you can respond quickly.

KE2 Evaporator Efficiency Controls . Eliminates . Communicates

Controls:

Evaporator Fans - The KE2 Evaporator Efficiency cycles evaporator fans, using the cooling energy stored in frost buildup to cool the room and reduce the need for defrost...reducing energy usage.

Room Temperature - Tight temperature control provided by the KE2 Evap helps reduce shrinkage and uses less energy by reducing temperature spikes.

TEV/EEV - KE2 Evap can be used with mechanical expansion devices, or can provide control of electric expansion valves, increasing system efficiency. Many popular electric valve models are pre-programmed in the controller to simplify setup.

Compressor/Liquid Line Solenoid - Relay is available to control either liquid line solenoid directly or pilot a compressor contactor. Additionally, evaporator fan cycling reduces compressor runtime by utilizing energy stored in the coil to help maintain room temperature.

Defrost Heaters - Energy savings realized by eliminating up to 87% of defrosts compared to typical time based systems. Heater pulsing feature improves heater life and reduces fogging effect during defrost to greatly reduce ice build-up in the space.

Multiple Alarms - Available e-mail/text alerts for networked controllers as well as standard audible and visible alarms.

Eliminates:

Defrost Time Clock - Eliminating the traditional defrost time clock saves component cost and installation. And, when using the KE2 Evap the system enters defrost only when needed -- reducing energy costs, and room temperature fluctuations that shorten product shelf life.

Room Thermostat - The KE2 Evap closely monitors and controls room temperature so separate thermostat cost and installation are eliminated.

Defrost Termination Device - Eliminate the defrost termination device ("Klixon®") too and save on the related expenses. The KE2 Evap uses a unique algorithm to sense defrost necessity and duration. A "Klixon®" can't do that.

Communicates:

PC - Stay on top of the system, without staying with the system. Whether on-site or remotely, you can access networked KE2 Evap controllers, check data, adjust setpoints, and receive e-mail alerts directly to your PC.

Smart Phone / Tablet - You're never without your phone. Now you can access networked KE2 Evap controllers directly from your phone or tablet, with the same data and adjustment capabilities of working directly with the controller or using your PC. And receive alarm alerts too, right to your device.

Smart Access - Automatically connects to your personal web portal, and provides a "customized" dashboard of all the controllers you setup with Smart Access. And using Smart Access to access your KE2 Evap controllers doesn't require special network configuration, like port forwarding or VPN, and in most cases it can eliminate the need for costly IT support.

Datalogging - Provides last 30 days of data in 10 minute intervals. Stored data verifies product temperature history, and provides information for trend analysis of system performance (e.g. seasonal impact, stocking days vs. other days,...).