

## The ClimaCheck Performance Analyzer

Approximately 20% of total world electricity consumption is used for refrigeration and air-conditioning and in many operations cooling can represent more than 50% of the entire electricity cost.

The unique, patented and award-winning ClimaCheck method offers an easy and accurate way for analyzing virtually any system. The ClimaCheck method provides several advantages:

- Reduced electricity consumption of 10-40%.
- Reduced environmental impact.
- Reduced repair costs.
- Longer plant lifetime.



ClimaCheck is today used in several hundreds of installations worldwide and is gradually becoming a preferred method for performance analyses.

## ClimaCheck in Supermarkets



ClimaCheck Performance Analyzers have proven to save energy in supermarkets around the world. The system is used both for inspections, troubleshooting and permanent monitoring. ClimaCheck's monitoring systems are installed in more than 100 supermarkets offering continuous energy monitoring versus the systems "energy profile". Furthermore, the early warning system notifies via SMS and e-mails if any system component loose performance.

In Sweden the leading supermarket chains require that performance is measured and documented at commissioning in accordance with the guidelines. Using ClimaCheck's field measurement system, performance is validated in relation to specifications. A commissioning with detailed documentation of the refrigeration process minimizes future unnecessary service calls and warranty costs.

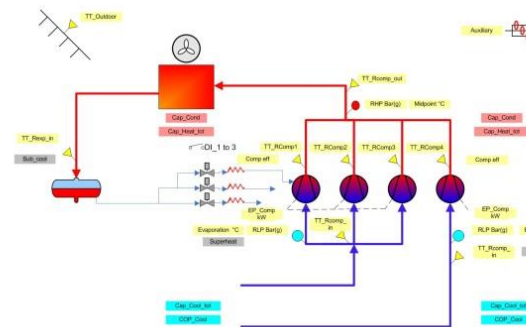
## Customer case: Supermarket, Portland, Oregon

### Customer profile

At the Lamb Thriftway Palisades market, a refrigeration pack with three low temperature and one "satellite" for medium temperature were analyzed and optimized as a pilot for an incentive program. The system consisted of "Scroll" compressors and outdoors condensers.

### Implementation

A portable ClimaCheck field measurement system was used to monitor the refrigeration rack during one week to establish baseline performance and information.



The analyses of measurement information resulted in series of corrective actions to optimize control strategy.

### Result

Measurements supervised and analyzed by third party consultants over the following week, with similar climate conditions, proved that an energy saving of 25% had been achieved.

The measurements also clearly indicated that further savings and increased reliability would be achieved if system circuiting were modified.

