

## Case Study

# EDEKA stores save 9.5% of energy costs with PowerSines

### MARKET REQUIREMENTS

The Edeka Group is the largest supermarkets corporation in Germany, with approximately 4,100 stores across the country. Lechertshuber & Wimmer GmbH are the owners of more than 20 EDEKA stores in Bavaria.

The stores' management was interested in reducing the high level of annual electricity consumption that was attributed to 24/7 substantial refrigeration loads, as well as other electrical equipment and lighting loads used extensively in the stores. Additional goal was to reduce significant maintenance costs incurred due to equipment failure and extensive light bulbs' replacement.

With the high cost of electricity, an innovative approach for lowering energy bills was needed. Furthermore, environmental awareness was also a factor, with the goal of reducing the large amount of CO<sub>2</sub> emissions generated by the facilities.

### SOLUTION

The PowerSines ComEC VS voltage optimizer, which is used in hundreds of stores throughout Europe, was identified by Edeka's management as the most suitable energy-saving solution for the premises. The system was installed and commissioned by Elektro Schartner, PowerSines' distributor in the region. One of the ComEC's advantages is its quick and simple installation near the main switchboard. The set up and activation took place without changes to the existing electrical infrastructure and with no interruptions to the routine of the business.

ComEC VS 250A provides persistent energy-saving while also ensuring that voltage supplied to the facility is continually controlled and stabilized, enabling the equipment to operate normally but with significantly reduced energy consumption. ComEC VS further helps in reducing maintenance costs, preventing equipment failure, and extending equipment lifetime.

### RESULTS

PowerSines' ComEC VS achieved **9.5% direct saving in electricity expenses** at Edeka, by reducing, optimizing and stabilizing the power level at the facilities. This translates to average annual savings of €7754 per store with a 250A main breaker.

Additionally, significant indirect savings were noted, reducing ongoing maintenance costs by extending the light bulbs and other electrical equipment's lifetime. The chain also achieved notable reduction of CO<sub>2</sub> emissions, contributing to a cleaner environment.

9.5% direct saving in electricity expenses

Voltage stabilization and over-voltage elimination

Increased equipment lifespan and reduced maintenance costs

Mounted onto existing electrical infrastructure

Simple installation

Attractive ROI of 2.8 years

Reduction of CO<sub>2</sub> emissions



Rev 3/2018

