

# Q-SYNC™ HIGH EFFICIENCY FAN MOTORS

## Price Chopper Refrigeration Fan Retrofit in Kansas City, MO

### Background:

Price Chopper is one of the largest grocery chains in the Kansas City-metro area. Through its contractor, Design Mechanical, Inc., Price Chopper participated in a U.S. Department of Energy sponsored demonstration project to measure energy savings when upgrading from existing shaded pole and electrically commutated motors (ECMs) in refrigeration cases to the Q-Sync smart, synchronous motor made by QM Power.

### Results:

Oak Ridge National Labs performed the measurement and verification for the program. The findings of the report confirmed Q-Sync as the highest efficiency motor for commercial refrigeration applications.

### Process:

The demonstration involved first conducting a detailed energy audit of the refrigeration equipment in the store to analyze current energy usage. Next, a head-to-head comparison was set up to measure the energy savings of replacing two incumbent shaded pole motors in a produce case with the Q-Sync motors.

### Outcome

The reduction in energy usage from retrofitting the produce case with a Q-Sync motor was an astounding 78.4% with an average of 81.9% amps saved. The high potential for energy savings throughout the store prompted Price Chopper to retrofit the entire store and several other locations with Q-Sync motors. Price Chopper also received utility rebates that have helped them reduce retrofit costs and increase ROI.

### Store Description

- Price Chopper: Kansas City, MO
- 298 evaporator fan motors in commercial refrigeration and freezer applications

### Contact Information

- Call us 24 hours a day at: **(816) 246-4200**
- Visit us online at: **www.qmpower.com**

Average  
Watts  
Saved:  
**78.4%**

Average  
Amps  
Saved:  
**81.9%**

“In our supermarkets and grocery stores, refrigeration can use almost 40 percent of total energy use.”  
“By improving the energy efficiency of commercial refrigeration equipment, we can make our businesses more competitive, reduce greenhouse gas emissions and save money,”  
- US Department of Energy Secretary Ernest Moniz

