

Case Study:

Three Phase and Single Phase Energy Saving Motor Controllers

Energy Saving Motor Controllers Help to Reduce Energy Consumption in McDonald's

McDonald's have long recognized their responsibility to protect and enhance the way they operate for the future. This means that they are aware of how influential it is for a company like themselves to lead by example; their aim is to minimize their energy consumption and make a significant contribution to the environment.



Fairford was contacted by McDonald's, through one of their partners, to utilize their energy saving solutions to help achieve their energy efficiency remit. Initially McDonald's installed Fairford's light Eco system the savings were very encouraging and lead to an installation in every store in the UK. McDonalds highlighted refrigeration as another area of the business which was a large consumer of energy in every restaurant. Fairford's motor controllers have a proven track record in reducing the energy consumption of refrigeration compressors so McDonalds agreed to undertake a trial using this technology.

In July 2009 a total of 7 single phase and 15 three phase trial units where installed on the main refrigeration units in 12 restaurants chosen by McDonald's. They were monitored closely and the results were positive.

As a result of this trial McDonald's agreed to install Fairford motor controllers in every corporate restaurant in the UK.



Installations began in March 2010 and over the course of the project, 431 corporate restaurants were fitted out with 256 single phase controls (HFE) and 528 three phase controls (XFE), on their walk in fridges and freezers.

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The average savings across the project, recorded and verified at the time of installation, proved to be 26% for the single phase controls and 38% for the three phase controls. This resulted in an annual reduction in CO₂ of over 2,550 tones, and a return on investment of less than two years.

In addition to this, a further 54 single phase and 132 three phase controls have been installed at 100 franchise restaurants and this project is still ongoing.

Fairford's Intelligent Energy Recovery System (i.E.R.S) is the feature that causes the soft start motor controllers to be so successful in this project. Fairford soft start motor control products can reduce the amount of energy used on lightly loaded motors, by matching the power supplied to the power required by the motor. This makes it ideal solution for refrigeration, air conditioning, escalators, injection molding machines, conveyors and many more applications.