

Fishers IGA to save \$140,000 on power each year

High efficiency iQ motor retrofits across all Fishers IGA stores in Australia

Mooroopna, VIC: The IGA supermarket in Mooroopna is undergoing small, but significant changes. Neal Murtagh, main installer for Fishers IGA supermarkets in Victoria, is upgrading the freezers and cooling cabinets. All Fishers owned IGA supermarkets in Victoria are undergoing retrofits within their cooling cabinets and freezers, replacing old, inefficient Q motors with high-efficiency ebm-papst iQ motors.

Customers can walk past the working area but are still able to do their shopping – the cooling cabinets do not need to be emptied. After the quick exchange the fan impellers get a clean, and Neal and his colleague move on to the next cabinet.

The reasons for the replacement are simple, states Neal: “I did the calculations and realized that a replacement with iQ motors can save us thousands of dollars in energy costs per year. Although the motors are more expensive, they have a payback time of only 10 months.”



Fishers installer Neal Murtagh

He showed his proposal to the directors and convinced them to upgrade all freezers and cooling cabinets in the 15 supermarkets that are owned by Fishers. Stores in Mildura, Ararat and Red Cliffs have already been retrofitted, and next on the list are stores in Robinvale, Miners and Kerang. The upgrade will be finished by December. A data logger that was installed in the Red Cliffs store before and after the retrofit has shown savings upwards of \$13,800 per year just in the one store, calculated at an energy price of \$0.14/kW.

Main drivers for the retrofit



Old Q motors ready for decommissioning

- Cost savings in the face of continuously rising energy costs in Australia
- Longer service life
- Short return on investment because of more efficient EC technology
- Easy replacement: same mounting and dimensions as Q motor



The engineer's choice

ebmpapst

Retrofitting made easy

Exchanging the old Q motors with the new iQ is a matter of minutes: one cooling cabinet can be retrofitted in about 15 minutes and doesn't need to be emptied. A typical upgrade of a complete supermarket includes the exchange of 80 to 150 motors and takes 2-3 working days. It requires 2 to 3 installers. Because one display cabinet at a time is being worked on for about 30 minutes, the supermarket can continue its normal business.



It pays to switch

Switching over to the new iQ motor technology is worthwhile whenever an old shaded-pole motor should be replaced or energy-savings are desired.

The switch pays off for both the environment and the user: in the case of the IGA in Mooroopna, the supermarket's fan energy costs will be reduced by over 50%.

Benefits of the ebm-papst iQ motors are their high energy efficiency and easy replacement. The iQ 3612 (the model that is used in the IGA upgrade) uses 10 Watts input power, instead of 58 Watts for the Q motors. This is a power saving of 83%. Because it has the same dimensions as the old Q motor it can be retrofitted easily; it is a simple drop-in solution.

Summary

- Retrofit of more than a thousand old Q motors with more energy-efficient iQ motors across 15 supermarkets
- More than halved the fan power consumption of the fridges and freezers
- Savings of at least \$140,000 per year across all stores
- 10 months payback time
- Less heat output of the motors improves overall fridge performance

