



When an escalator is full it is energy efficient...

But now it's wasting a fortune!

iMEC saves up to **50%** on electric motors



THE ENERGY SAVING BUSINESS

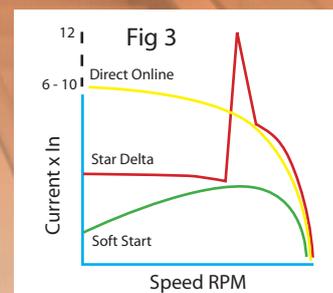
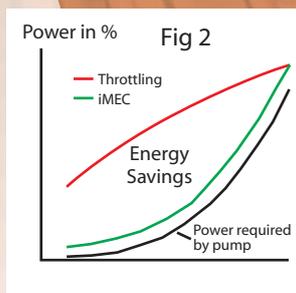
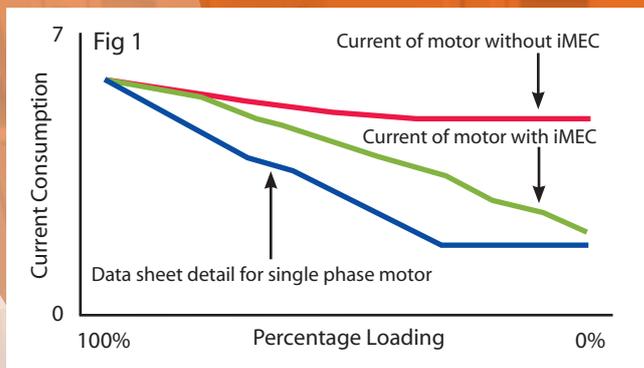
How does iMEC work?

AC induction motors consume more than half of all the world's energy! Unfortunately, motors lack the intelligence to address three key problems that lead to massive energy wastage, unnecessary carbon emissions and undue wear and tear:

- 1) Fixed speed motor driven applications like escalators cannot intelligently adjust their torque output to match load changes leading to excess energy consumption.
- 2) Motors that drive applications like pumps and fans cannot intelligently adjust their speed to match load changes and as such consume more power than they need.
- 3) When starting, a motor develops more torque than is required at full speed. This high inrush of current can lead to mechanical breakdown and peak demand penalties. To avoid the problems associated with starting, motors are often left running continuously even when they are not being used leading to huge energy waste.

The iMEC solution effortlessly addresses all of these problems by introducing intelligence to your existing systems:

- 1) iMEC can be applied to fixed speed applications and will dynamically adjust the torque output to meet load requirement without altering the speed (see fig. 1). This leads to substantial savings and is ideal for applications like escalators and many others which run at no/low load for long periods of time. In the right applications, payback is typically under two years!
- 2) iMEC can be specified to intelligently adjust the speed of your motors to match their variable loading so your motors only consume the power they need. This is a vast improvement over traditional control methods such as throttling (see fig. 2). A mere 20% reduction in speed can lead to energy savings of up to 50%!
- 3) iMEC provides a smooth, step-less acceleration (soft start) of your motors (see fig. 3). This dramatically reduces wear and tear on your system and helps you to avoid peak demand penalties. With a controlled start in place your motors can now be switched off without the fear of re-starting and iMEC can be programmed to perform this function automatically. Auto Switch Off delivers 100% energy savings!



BENEFITS OF iMEC

Speed control delivers savings of up to 50%.

Torque control can offer a payback in under 2 years.

Controlled starting reduces wear & tear and peak demand costs.

Auto Switch Off delivers 100% energy savings.

CASE STUDY

Three iMEC's were installed on the fans of a fiber glass production line in the UK.

The installation delivered a return on investment of 1 year 9 months, providing \$225,000 on the bottom line every year after payback!

iMEC- Delivering substantial savings and reduced carbon emissions through the intelligent control of motors.

