Why Energy Efficiency is so Important

Motors at the forefront of global efforts to reduce emissions

Up to 70% of electricity consumed by industry is used by electric motor systems. The technological advancement and adoption of high-efficiency motors and variable speed drives on the market, are key factors in achieving significant energy efficiency improvements in industry and infrastructure.

45%

Electric motors consume **over 45% of the world's electricity.**

x2

By 2040 the number of motors **will double.**

10%

Adoption of high-efficiency motor systems would **cut global electricity consumption by up to 10%.**

Changing just one motor can make a difference.

International Efficiency (IE) standards stipulate the energy efficiency of low voltage AC motors. These IE codes serve as a reference for governments who specify the efficiency levels for their minimum energy performance standards (MEPS).

Five levels of motor efficiency

1 — **IE1 Standard Efficiency**

2 — **IE2 High Efficiency**

3 — **IE3 Premium Efficiency**

4 — **IE4 Super Premium Efficiency**

5 — **IE5* Ultra Premium Efficiency**

*The IE5 class has not been specified in the standard yet, but some manufacturers have already developed motors that will be compliant.

Switching up to IE5+ efficiency levels

Industrial motors

When added to the existing motor of a pump, fan or compressor, a variable speed drive can typically reduce power consumption by **25%**. Replacing 80% of motors with IE5 levels **will save more energy than the annual energy consumption of Poland.**

Fans

Chiller compressors

Smoke exhaust fans

Pumps

Pumps