

EC Regulation N° 640/2009 with modification EU 4/2014

From 1 January 2015 Almeco will supply all of its fans with IE2 motors and IE3 motors from 7,5 kW in accordance with EC Regulation N° 640/2009.

Background

The European Directive 2005/32/EC establishes a framework for ecodesign requirements for energy-using products. Eleven products (e.g. domestic lighting and televisions) have been subject to EC regulations implementing this directive. The goal is to have 222 TWh annual savings by 2020 (which equals 8% of EU consumption in 2007).

Implementation for electric motors

EC Regulation N° 640/2009 implements this Directive 2005/32/EC for electric motors. This regulation replaces the former voluntary agreement between motor manufacturers and the European Commission.

Goal

Electricity saving of 135 TWh by 2020




Application

- 3-phase squirrel cage motors (50 and 60 Hz)
- 2, 4 and 6 poles
- Single speed
- Nominal voltage up to 1000V
- Nominal power between 0,75 kW and 375 kW
- Continuous duty (S1)

Doesn't apply to motors

- Immersed in a liquid
- That can't be tested independently from assembly
- Operating at more than 4000 meters above sea level
- Operating in an environment where the ambient air is out of the (-30°C; +60°C) range or where maximum operating temperatures are above 400°C
- In potentially explosive atmospheres (ATEX)
- That are brake motors

Definitions

IE3		Premium Efficiency (similar to NEMA Premium EPEP (US))
IE2		High Efficiency (similar to eff1 and EPEP High Efficiency (US))
IE1		Standard Efficiency (similar to eff2)

Requirements and calendar

- From 16 June 2011: Motors must have efficiency level IE2 or better
- From 1 January 2015: Motors between 7,5 and 375 kW must have efficiency level IE3 or better, or IE2 in combination with a variable speed drive
- From 1 January 2017: Motors between 0,75 and 375 kW must have efficiency level IE3 or better, or IE2 in combination with a variable speed drive

Future

The European Directive 2005/32/EC (EUP: energy using products) has been replaced by the Directive 2009/125/EC (ERP: energy related products). In this directive a new set of ten products has been defined with a potential expected savings of 20% of their consumption. One of these products are fans driven by motors with an electric input power between 125 W and 500 kW. The EC regulation 327/2011/EC defines minimum efficiency levels for different categories of fans. In 2013 Almeco took action to meet the first set of efficiency criteria. From 1 January 2015 Almeco is also ready to comply with the next set of stricter efficiency requirements.