

THE ECODESIGN

DIRECTIVE IN TWO MINUTES

A brief introduction to the energy efficiency requirements for electric motors, circulators and water pumps

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WHAT IS THE ECODESIGN DIRECTIVE?

Overview

In 2009, the European Parliament and Council passed a directive defining ecodesign requirements for energy-related products (ErP). It places high demands on the efficiency levels of a wide range of products and its aim is to secure energy supply and reduce energy consumption across the European Union (EU).

These requirements came into force in 2013 and in January 2015 were tightened further. Among many other devices, these latest changes apply to water pumps and electric motors. The efficiency requirements for glandless standalone circulators and glandless circulators integrated in products will increase from 1st August 2015.

IE and electric motors

The International Electrotechnical Commission has defined four IE (International Efficiency) classes for induction motors. In levels of efficiency, these are IE1 (Standard Efficiency), IE2 (High Efficiency), IE3 (Premium Efficiency) and IE4 (Super Premium Efficiency)

MEI and water pumps

Ecodesign requirements for rotodynamic water pumps are established through the Minimum Efficiency Index (MEI). The MEI is based on three points on the pump curve: the Best Efficiency Point, Part Load and Overload.

EEl and circulator pumps

The Energy Efficiency Index (EEI) indicates circulator efficiency and is marked on every circulator's nameplate.

What do the January 2015 changes mean for electric motors?

To be sold in the EU, all electric motors from **7.5-375kW** must now comply with a mandatory IE3 efficiency rating or IE2 if fitted with a variable frequency drive (VFD).

What do they mean for water pumps?

To be sold in the EU, all water pumps in the scope of this regulation must have an MEI ≥ 0.40 .

What will the 1st August changes mean for circulator pumps?

From 1st August 2015, glandless standalone circulators and glandless circulators integrated in products must have an EEI of ≤ 0.23 to be sold in the EU.

How do the changes affect your business?

Water pumps, electric motors and circulators that fail to meet these efficiency requirements cannot be sold within the EU. That means you can be

sure all water pumps, electric motors and circulators on the market have a lower environmental impact and are more economical to run.

Did you know?

From 2017 all electrical motors from **0.75-375kW** must meet either the IE3 standard or the IE2 standard when equipped with a variable frequency drive (VFD).

The ALPHA2 circulator with Grundfos AUTOADAPT has an EEI of 0.15, can operate on as little as 5 watts and has won two Energy+ awards for outstanding efficiency.

High efficiency motors and drives with the **Grundfos Blueflux® \geq IE4** label actually out-perform IE4 efficiency levels.

2013

All water pumps in the scope of this regulation must have an **MEI ≥ 0.10**

Glandless standalone circulators must have an **EEI ≤ 0.27**

2015

From 1st January, all electric motors from **7.5-375 kW** must either meet the IE3 standard or the IE2 standard equipped with a VFD

From 1st January, all water pumps in the scope of this regulation must have an **MEI ≥ 0.40**

From 1st August, glandless standalone circulators – and glandless circulators that are integrated in products – must have an **EEI ≤ 0.23**

2017

From 2017, all electric motors from **0.75- 375 kW** must either meet the IE3 standard or the IE2 standard equipped with a VFD

ERP 2015. WE'RE READY.

Since its foundation in 1945, Grundfos has been committed to sustainable development. Sustainability and corporate social responsibility are fundamental to all facets of our business. Our approach involves an ongoing effort to improve efficiency and reduce the carbon footprint of our own company, and our clients.

This commitment ensures we can help you adapt to changing standards and, through products and solutions such as those from Grundfos iSOLUTIONS and Grundfos Blueflux[®], not only meet but exceed requirements.

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