



**Comments to
draft “COMMISSION REGULATION to implement Directive 2009/125/EC of the European
Parliament and of the Council
with regard to eco-design requirements for electric motors and variable speed drives
repealing Commission Regulation (EC) No 640/2009 with regard to eco-design
requirements for electric motors”**

Brussels, 27 July 2018

Europump¹, the European Association of Pump Manufacturers, has carefully analysed the draft documents distributed after the meeting of the Eco-design and Energy Labelling Consultation Forum meeting held on 12th of July 2018.

As a major customer of electric motors and in the light of the revision of the Commission Eco-design Regulation for water pumps, Europump is particularly interested in the delegated Act for motors and its regulatory annexes.

After careful reading, we provide our comments to the draft documents but also raise our concerns regarding some general issues that might appear when moving forward with the document as it is.

We also enclose, annexed to this position, comments inserted - for easier handling/reading - in both the draft Regulation replacing Regulation (EC) No 640/2009 and its draft Annexes.

Europump appreciates any action undertaken for a more resource and energy efficient world. Therefore, we would like to bring in our knowledge to make Eco-design regulations a useful tool for reducing energy consumption. We hope that it will be helpful for a fruitful discussion during the inter-services consultation process.

General comments

1. Including single-phase motors with a requirement of IE2 is too ambitious. We believe it is comparable with a minimum requirement of IE4 for three phase motors. Europump suggest starting with IE1 level first.

For example, reaching higher classes could mean different motor frame sizes and therefore geometrical problems for product integrated single-phase motors.

¹ Europump, the European Association of Pump Manufacturers, was established in 1960. It represents 17 National Associations in 14 EU Member States, Turkey, Russia & Switzerland. Europump members represent more than 450 companies with a collective production worth more than €10 billion and employing 100,000 people in Europe. The permanent improving performance of liquid pumps increases the productivity of end user sectors and contributes to competitiveness and growth.

2. The motor drive combination does not increase efficiency but decreases energy consumption in operation.

A frequency converter is attached to a motor when the foreseeable use is in an application with a variable load over operation time.

The draft regulation together with the testing standards available creates issues in the market. For example, putting customer's focus on IE Classes for motors and IE Classes for VSDs at nominal load point leads to situations where the motor and the VSD are labelled well but a lower-class label of the VSD or the motor reaches a more efficient operation and lower energy consumption due to part-load behaviour.

It cannot be in the intention of the Eco-design directive to create new market distortions. This shows that a legal component level requirement is very limited.

This is why Europump has tried for years to have the extended product approach established.

3. Recital (7) of the draft document states that Commission Regulation (EC) No. 640/2009 estimates its savings to **57 TWh** per year. The correct value is **135 TWh** (see Recital (13) of Regulation (EC) No. 640/2009). This is a major difference and needs to be corrected if it is a mistake or explained if it is intended.

Europump supposes that the 78 TWh are missing due to the deletion of the current Regulation "IE2 + VSD" from (EC) No. 640/2009. This should be noted in the preamble, as these are savings, which should be (realistically) covered again via the extended product approach and other legislative measures for motor driven products in other Regulations.

4. The number of IE-Class labelling rises due to this regulation. As a frequency converter (here called VSD) is usually close to the motor and / or sold together with the motor a customer buys a product combination with two "IE x" in a row.

We believe that it was beneficial to mark the IE-Classes for VSD and Motors differently in order to avoid confusion in the market.

To remain consistent the motors may keep its label "IE x" and the VSD could bear an index such as "IE_{VSD} x" or "IE-VSD x" to be able to allocate the right label to the correct component.

5. A clear definition of "submersible" motors is missing in the text. Some motors can only operate submersed. There are motors that can operate submersed continuously or part of the time but does not require to be submersed. Submersible motors are also dry-installed where there is a risk of flooding and the requirement on reliability is high. "Specified to operate exclusively [...] wholly immersed in a liquid" is not a suitable wording. Europump believes that submersible motors need an own clause in Article 4 Point 2 with a clear exemption for "Submersible motors specially designed to operate wholly immersed in a liquid" in line with the current regulation and the standard defining IE classes, IEC 60034-30-1 (to be transposed into an EN standard). For future evaluation, it would make sense to generally approach the subject of efficiency testing of submersible motors.



6. The motor Regulation EC No. 640/2009 has been amended by the Regulation EU No. 4/2014, which should also be repealed at the same time to avoid any amendment referring to a document not existing any longer.
7. Europump has criticised the coefficients in table 4 and 5 of Annex 1. When used they produce unsteady curves between the small and the larger Motors at 0.75kW. Europump already suggested a solution to IEC. A linear interpolation between the values for 0.55kW and 0.75kW circumvents the problem that for example requirements for motors with a rated power of 0.749kW would have higher requirements than a 0.75kW motor.

Detailed comments

They are inserted - for easier handling/reading - in both the draft Regulation replacing Regulation (EC) No 640/2009 and its draft Annexes.

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