



Energy related Products Directive (ErP) made simple

Important information for Original Equipment Manufacturers exporting into the EU

There has been a lot of noise in the fan industry over the past couple of months surrounding the impending 2013 ErP regulations. From 2013, new efficiency targets for fans come into force under the European Union's Energy-related Products (ErP) Directive, which will mean that some fan types will no longer carry a CE mark. Products without CE mark cannot be exported into the EU and will have to be taken off the European market.

The regulations will tighten further in 2015, with an even greater impact. The background of these stringent regulations is the EU's pledge to reduce its CO₂ emissions by at least 20 percent by 2020, as documented in the Kyoto Protocol.



ErP Directive affects fans and motors

The ErP Directive affects axial, centrifugal (forward and backward curved), cross-flow and diagonal fans with a power input of between 125W and 500kW and it is down to the fan manufacturer to assess their own products to determine if they pass or fail.

The new regulations apply to the complete fan impeller and motor combination. This includes both external rotor motor designs and separate impeller and motor combinations, where the fan is driven by a shaft or drive belt. Original Equipment Manufacturers who combine a motor with an impeller in their product will have to ensure their fan system is ErP compliant.

What applies to fans also applies in principle to electric motors. In this context there is often a lack of clarity leading to misunderstandings. The fact is that electric motors are required to achieve at least efficiency class IE2 from June 2011 in accordance with European Union Implementation Directive No. 2009/640/EC (ErP Directive). The directive defines a "motor" as an "electric single speed, three-phase 50 Hz or 50/60 Hz, squirrel cage induction motor that has 2, 4 or 6-poles, a rated voltage of up to 1000 V, a rated output between 0.75 kW and 375 kW, rated on the basis of continuous operation".

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21/09/12- Page 1 of 2



EC external rotor motors like the ones used to drive energy-efficient fans are therefore not subject to this directive. However, their efficiency is comparable with the values required by the directive. Here, it becomes clear that EC motors already substantially exceed the efficiency levels demanded. This shows that EC motor technology is the better alternative when planning energy-efficient equipment and installations.

OEMs need to ensure compliance of their fan systems

Anyone who sources separate motors and impellers and combines them into a fan system is deemed to be a fan manufacturer under the ErP Directive. As such, these manufacturers will also have to test their fans to ensure they comply with the regulations. For each fan type, there is a corresponding formula to calculate whether a fan meets the minimum efficiency requirement.

We estimate that approximately 30 percent of all fans currently available on the market will no longer satisfy the stringent requirements of the ErP Directive. And as of 2015, when the second stage of the ErP Directive becomes effective, approximately another 20 percent of fans used throughout Europe will no longer meet the minimum criteria. But ebm-papst customers do not need to worry: all GreenTech EC products are "Ready for ErP 2015"! And for almost every fan that will no longer be permitted in the future, there is already an energy-efficient GreenTech replacement which not only fulfills the specifications of the directive, but even significantly exceeds them.

Now is the time to act

Our formula for stress-free dealing with the fan directive is called "GreenTech". Compared to conventional fans with AC motors, GreenTech EC fans attain a much higher efficiency than demanded. At their best, they are some 50 percent more energy-efficient and operate extremely quietly due to optimised speed level techniques and the aerodynamic design of the impellers. Moreover, they are extremely reliable and durable.

ebm-papst EC fans have been above the performance threshold for years and therefore meet the standard for 2015. However, please contact your ebm-papst representative if you are in any doubt.

You can find further information on the ebm-papst A&NZ website:

http://www.ebmpapst.com.au/en/products/product_news/erp2015_2/erp2015_3.html

About ebm-papst

The ebm-papst Group is the world's leading manufacturer of fans and motors and is a pioneer and pacesetter for ultra-efficient EC technology. ebm-papst fans and motors are represented in many industries, including ventilation, air-conditioning and refrigeration technology, household appliances, heating engineering, in IT/telecommunications, in medical technology and in applications in automotive and commercial vehicles engineering. ebm-papst EC motor technology, and the market leader's engineering and logistics expertise will add value to your business.

Find out more about ebm-papst A&NZ on www.ebmpapst.com.au