New EU requirements for transformers
Ecodesign Directive from the European Commission

Ecodesign is an approach to design of a product with special consideration for the environmental impacts of the product during its whole lifecycle. In a life cycle assessment the life cycle of a product is usually divided into procurement, manufacture, use and disposal. Ecodesign is a growing responsibility and understanding of our ecological footprint on the planet. It is imperative to search for new building solutions that are environmentally friendly and lead to a reduction in the consumption of materials and energy.


Contents: The Ecodesign Guideline defines a framework for the requirements for the environmentally-friendly design of energy consumption-relevant products. The objectives include improved energy efficiency and a general environmental compatibility and thus the reduction of CO2 emissions. Batch E2 addresses the transformers product group. Based on a preparatory study, specific ecodesign standards for transformers were defined by the European Commission which have now been introduced in the new implementation directive. In principle, the new directive should affect an increase in the degree of effectiveness by 20%.

General information
Name of the directive:
No. 548/2014 from the commission for implementing the Ecodesign Guideline 2009/125/EG

Scope of application: The 2005 Ecodesign directive covered energy-using products, which use, generate, transfer or measure energy, including consumer goods such as boilers, water heaters, computers, televisions, and industrial products such as transformers. The implementing measures focus on those products which have a high potential for reducing greenhouse gas emissions at low cost, through reduced energy demand.
Sönmez Trafo has designed low loss transformers that already meets and exceeds new design specifications of the first tier (Tier 1) of the Ecodesign Directive for most ratings.

Please contact us for the loss values according to EcoDesign Directive.

Exceptions: The directive does not apply to transformers solely designed and implemented for the following purposes:

- Instrument transformers for supplying measurement devices, meters, relays and similar devices
- Transformers with low voltage windings for use with rectifiers to deliver direct current
- Furnace transformers
- Offshore transformers
- Transformers for emergency operation
- (Energy-saving) transformers for supplying trains with power
- Grounding transformers
- Transformers mounted on rail vehicles
- Start-up transformers for switching on three-phase current motors to prevent drops in voltage
- Test transformers for generating a certain voltage or amperage for testing electrical equipment
- Welding transformers for arc welding equipment or resistance welding equipment
- Transformers for deep water applications
- Transformers for explosion-protected applications in underground mining
- Medium Voltage (MV) to Medium Voltage interface transformers of up to 5 MVA
- Large power transformers, if proven that technically achievable alternatives are not available for a certain application, to fulfill the minimum energy efficiency requirements mandated by the directive.
- Large power transformers which serve as an equivalent replacement for existing large power transformers at the same physical location/in the same system, if the replacement is not possible without unreasonable costs in conjunction with the transport and/or installation.

Sönmez Trafo's high-efficient new Ecodesign range is compliant with new EU Commission Regulation. Please contact us for your specific requirements and what options are available before and after the July 1 enforcement date. The new regulation is part of the EU’s 20-20-20 aim to manage a 20% reduction in the energy consumption by 2020.