



INFO

VDE Services for the Eco-Design (EuP) Directive and the EU Energy Label

**Eco-design requirements, energy efficiency
and environmental protection**



Energy is a valuable and limited commodity. If you use it efficiently, you not only save money, but it also contributes to climate protection. The EuP Directive (Directive 2005/32/EC issued by the European Parliament and the Council creates a framework for establishing eco-design requirements for energy using products) and the product-specific implementation measures aim to define binding minimum requirements for **E**nergy using **P**roducts in order to protect the environment.

The VDE is your partner: VDE is the expert for accompanying energy efficiency technologies, the standardization of product and test requirements, the expert examination and evaluation of electrotechnical products as well as for special assessments within the framework of environmental and energy audits.

VDE
INSTITUTE



Currently affected product groups:

- Consumer electronics, audio, video and related equipment
- Information and communication technology as well as office equipment
- Household appliances
- External power supply units (switching power supply units, transformers and chargers)
- Ballasts for fluorescent lamps
- Lamps
- Electric motors
- Toys, leisure and sport appliances

Our services:

- All tests of eco-design requirements
- Energy efficiency measurements
- Standby measurements
- Life Cycle Assessment
- Chemical product analysis (Material declaration, RoHS, WEEE)
- Electromagnetic Compatibility measurements (EMC)
- Noise emission measurements
- Environmental tests / lifetime tests
- Marks for environmental friendly, energy efficient and quality products
- Environmental management systems audits
- Energy efficiency audits
- Quality management systems audits

Measurements and certificates of conformity

Our services – Your benefit

Energy consumption, efficiency, stand-by losses ...

The VDE Institute has comprehensive facilities for collecting energy efficiency data using the high tech measurement techniques. The measured values provide insights into possible energy saving potential and serve to document compliance with legal requirements.

Please note:

Products that are subject to the implementation regulations of the EuP Directive must indicate compliance with the requirements of the relevant implementation regulation as part of the CE marking in the EC declaration of conformity. We can perform the special measuring tasks required for this purpose and can issue a certificate of conformity for you.

Our documentation of the measuring results is the ideal basis for you to obtain special energy labels that have been introduced in Europe, for example the “Blue Angel” ecolabel for information technology and consumer electronics equipment, the EU ecolabel, the Energy Star label or the energy label of the German Energy Label Association (GED). We would also be pleased to accompany the appraisal of products in industrial use, such as drive units, motors and inverters, with our technical know-how.

The measurement of energy efficiency is also a component of the VDE quality label “VDE Quality Tested”.

The EU Energy Label

The European Union has issued directives with the objective of reducing the energy consumption of household appliances and thus contributing towards the protection of the climate. Compliance with these directives is binding for the manufacturer, the statutory consumer information is provided in the form of an energy label. The energy efficiency data, for example the power and water consumption of washing machines or the energy consumption of electric kitchen ovens, depending on the type of heating and oven volume, are documented on the energy label. The test is based on EC directives and European standards. Besides the appliance manufacturers, the independent VDE Testing and Certification Institute carries out energy efficiency measurements and monitors the information on the labels. Since the methods for determining these data are extremely sensitive, the test equipment, resources and personnel in the VDE Institute have to meet very high standards.

The VDE Institute carries out tests for the energy labeling of washing machines, tumble driers, dishwashers, refrigerators and freezers, electric ovens, air conditioning units and lamps. We are technically prepared for additional products that have to be labeled with the EU energy label in the future.



Our testing technology – precise and reliable

The VDE Institute uses more than 3,000 testing and measuring systems. The following are used especially for testing compliance with eco-design requirements:

- state of the art water treatment plant for ensuring consistent water quality and precision test systems for reproducible testing of washing machines and dishwashers
- test kitchen and comprehensive test equipment for analyzing baking results when assessing ovens in conjunction with energy efficiency
- integrating sphere and extensive light measuring equipment for analyzing the energy efficiency of lamps
- the world's most modern EMC test center
- anechoic acoustic measuring room that complies with accuracy grade 1
- comprehensively equipped chemistry laboratory for analyzing chemical product safety and sustainability
- Numerous problems arise when measuring very small power inputs, for example during standby operation or other forms of operation that require little power consumption. The VDE Institute uses special measuring equipment for this purpose when testing compliance with eco-design requirements, together with a low distortion mains supply with a distortion factor of better than 1%, and has created special test room conditions to ensure that the measuring results are precise and reliable.

Environmental and energy-efficient company processes

The environmental and energy audit

We evaluate company processes and measures relating to environmental and energy efficiency with auditors who have a wide range of specialist experience in the fields of electrical engineering, mechanical engineering, industrial safety and environmental protection. On the basis of a catalog of criteria, we identify environmental protection measures and measures relating to the energy efficiency of processes and products. The results can be used as improvement potential and, provided the normative requirements are complied with, the company can be certified within the framework of an environmental management assessment.



VDE

**Prüf- und Zertifizierungs-
institut GmbH**

***Testing and Certification
Institute***

Merianstr. 28

D-63069 Offenbach

Tel. +49 69 8306-0

Fax +49 69 8306-555

www.vde.com

Your Contacts

Household appliances

Christoph Türk

Tel.: +49 69 8306-425

christoph.tuerk@vde.com

Consumer electronics and IT equipment

Harald Frerk

Tel.: +49 69 8306-253

harald.frerk@vde.com

Luminaires, lamps, electronic ballast, power supplies

Thilo Koch

Tel.: +49 69 8306-823

thilo.koch@vde.com

Toys, leisure and sports equipment

Dr. Thomas Seitz

Tel.: +49 69 8306-318

thomas.seitz@vde.com

Environmental and energy efficiency audits

Ingo Neiß

Tel.: +49 69 8306-270

ingo.neiss@vde.com

Chemical product analyses, sustainability

Michael Riess

Tel.: +49 69 8306-830

michael.riess@vde.com