

Ecodesign (EuP)-Directive and EC-Commission Regulation

## Legally binding Regulations relating to energy efficiency and environmental protection

The EuP directive aims at setting mandatory minimum requirements for individual product groups. Whereas the EuP directive only sets the frame, product group specific implementing measures are elaborated in a subsequent process.



A regulation is the final output of the product group specific EuP implementation process. **Regulations are legally binding in the entire European Union** without requiring any additional legal act of the Member States. They come into force shortly after publication in the Official Journal of the European Union, but usually allow transition periods, which differ from product group to product group.

In the following the product group specific output of the EuP implementation is given



## Standby and off-mode losses

### COMMISSION REGULATION (EC) No 1275/2008

The Regulation applies to the following products until such time as a Regulation is issued specifically for the corresponding product. It does not apply to electrical and electronic household and office appliances that are brought to market with an external low voltage power supply. The legally binding application will be implemented in 2 phases.

**January 7, 2010 / Phase 1:** Power consumption of 1 W or less (switched off), 1 W (standby mode), 2 W (standby mode + display)

**January 7, 2013 / Phase 2:** Power consumption of 0.5 W or less (switched off), 0.5 W (standby mode), 1 W (standby mode + display)

#### 1. Household appliances

- Washing machines
- Clothes dryers
- Dish washing machines
- Cooking: Electric ovens, Electric hot plates, Microwave ovens
- Toasters
- Fryers
- Grinders, coffee machines and equipment for opening or sealing containers or packages
- Electric knives
- Other appliances for cooking and other processing of food, cleaning and maintenance of clothes
- Appliances for haircutting, hair drying, tooth brushing shaving, massage and other body care appliances
- Scales

#### 2. Information technology equipment intended primarily for use in the domestic environment

#### 3. Consumer equipment

- Radio sets
- Videocameras
- Video recorders
- Hi-fi recorders
- Audio amplifiers
- Home theatre systems
- musical instruments
- and other equipment for the purpose of recording or reproducing sound or images, including signals or other technologies for the distribution of sound and image other than by telecommunications

#### 4. Toys, leisure and sports equipment

- Electric trains or car racing sets
- Hand-held video game consoles
- Sports equipment with electric or electronic components
- Other toys, leisure and sport equipment

## Simple set-top boxes

### COMMISSION REGULATION (EC) No 107/2009

The requirements of this Regulation take precedence over the requirements of (EC) Regulation No. 1275/2008 (standby and off-mode losses).

The legally binding application will be implemented in 2 phases.

**February 25, 2010 / Phase 1:** Standby mode: 1 W, active operating mode: 5 W

**February 25, 2012 / Phase 2:** Standby mode: 0.5 W, active operating mode: 5 W

## Non-directional household lamps

### COMMISSION REGULATION (EC) No 244/2009

The legally binding application will be implemented in 6 phases.

**September 1, 2009 / Phase 1:** Compliance with the eco-design requirements specified in Phase 1 of the Regulation is mandatory.

As far as conventional light bulbs are concerned, this means: Bulbs with non-clear glass plungers and 100 Watt bulbs with clear glass may no longer be sold from September 1, 2009 onwards. By 2012, all high wattage bulbs must have been removed from the shops. Step by step, watt by watt.

**September 1, 2010 / Phase 2:** Enhanced requirement to improve efficiency. 75 Watt bulbs may no longer be sold

**September 1, 2011 / Phase 3:** Enhanced requirement to improve efficiency. 60 Watt bulbs may no longer be sold.

**September 1, 2012 / Phase 4:** Enhanced requirement to improve efficiency. Conventional light bulbs may no longer be brought to market.

**September 1, 2013 / Phase 5:** Enhanced requirement to improve efficiency.

**September 1, 2016 / Phase 6:** Enhanced requirement to improve efficiency.

Non-directional household lamps must be brought to market complete with product information from **September 1, 2009** onwards and with enhanced product information from **September 1, 2010 / Phase 2** onwards..



### Tertiary sector lighting products

#### COMMISSION REGULATION (EC) No 245/2009

Directive 2000/55/EC (Energy Efficiency Requirements for Ballasts for Fluorescent Lighting) will be revoked on April 13, 2010.

The legally binding application for product information relating to lamps, ballasts and luminaires will be implemented in 1-2 phases and for eco-friendly design in 3 phases.

**April 13, 2010 / Phase 1:** Specifications relating to lamp efficiency, power requirements and product information

**April 13, 2012 / Phase 2:** Enhanced requirement to improve efficiency in terms of lamp efficiency and power

**April 13, 2017 / Phase 3:** Enhanced requirement to improve efficiency in terms of lamp efficiency and power

#### Ballasts

**April 13, 2010 / Phase 1:** Specifications relating to energy efficiency and product information

**April 13, 2012 / Phase 2:** Enhanced requirements for energy efficiency and product information

**April 13, 2017 / Phase 3:** Enhanced requirements for energy efficiency

#### Luminaires

**April 13, 2010 / Phase 1:** Specifications relating to energy efficiency and product information

**April 13, 2012 / Phase 2:** Enhanced requirements for energy efficiency and product information

**April 13, 2017 / Phase 3:** Enhanced requirements for energy efficiency

### External power supplies

#### COMMISSION REGULATION (EC) No 278/2009

The legally binding application will be implemented in 2 phases.

**April 27, 2010 / Phase 1:** Power consumption may not exceed 0.5 W under no-load conditions.

**April 27, 2011 / Phase 2:** Power consumption may not exceed 0.3 - 0.5 W under no-load conditions, depending on the output power.

### Electric motors

#### COMMISSION REGULATION (EC) No 640/2009

The legally binding application will be implemented in 3 phases.

**June 16, 2011 / Phase 1:** Engines must achieve the IE3 level of efficiency specified in the Regulation, at least, and product information must be available.

**January 1, 2015 / Phase 2:** Engines with a nominal power output of 7.7 – 375 kW must either achieve the IE3 level of efficiency specified in the Regulation or correspond to level IE2 and be equipped with speed control, and product information must be available.

**January 1, 2017 / Phase 3:** All engines with a nominal power output of 0.75 – 375 kW must either achieve the IE3 level of efficiency specified in the Regulation or correspond to level IE2 and be equipped with speed control, and product information must be available.

## Circulators

### COMMISSION REGULATION (EC) No 641/2009

The legally binding application will be implemented in 2 phases.

**January 1, 2013 / Phase 1:** The calculated energy efficiency index (EEI) may not exceed a value of 0.27.

**August 1, 2015 / Phase 2:** The calculated energy efficiency index (EEI) may not exceed a value of 0.23.

**From January 1, 2013 onwards,** manufacturers are obliged to provide product information on specific eco-design characteristics.

## Consumer electronics TV

### COMMISSION REGULATION (EC) No 642/2009

(EC) Regulation No. 1275 /2008 (Standby and Off-Mode Losses) will no longer apply from January 7, 2010 onwards, when the application of the Regulation for television appliances becomes legally binding.

The legally binding application will be implemented in 4 phases.

**January 7, 2010 / Phase 1:** - The power consumption may not exceed 1 W in Off mode  
- The power consumption may not exceed 1 W resp. 2 W, depending on the operating state, in standby mode

**August 20, 2010 / Phase 2:** - The upper power consumption limits in On mode as defined in the Regulation may not be exceeded  
- The menu must offer a "home mode" setting  
- The specified minimum value for peak luminance may not be exceeded  
- The specified product information must be freely accessible on the internet.

**August 20, 2011 / Phase 3:** - The power consumption in Off mode may not exceed 0.3 W, or 0.5 W in specific cases.  
- The power consumption may not exceed 0.5 W resp. 1 W, depending on the operating state, in standby mode.  
- Television appliances must be fitted with an automatic switch-off mechanism that switches to a state in which the applicable upper limits relating to power consumption are not exceeded.

**April 1, 2012 / Phase 4:** - The power consumption in On mode may not exceed the upper limits specified in the Regulation.



### Domestic refrigerators and freezers

#### COMMISSION REGULATION (EC) No 643/2009

Directive 96/57/EC (Energy Efficiency Requirements for Electrical and Electronic Household Refrigerators, Freezers and Combinations Thereof) will be revoked when the application of this Regulation becomes legally binding on July 1, 2010.

The legally binding application will be implemented in 5 phases.

- July 1, 2010 / Phase 1:** - Product information on energy efficient use  
- Technical measures to reduce the energy consumption of compressor and absorption refrigerators
- July 1, 2012 / Phase 2:** - Technical measures to further reduce the energy consumption of compressor and absorption refrigerators
- July 1, 2013 / Phase 3:** - Special technical measures to further reduce the energy consumption of compressor and absorption refrigerators
- July 1, 2014 / Phase 4:** - Technical measures to further reduce the energy consumption of compressor refrigerators
- July 1, 2015 / Phase 5:** - Technical measures to further reduce the energy consumption of absorption refrigerators

### Household refrigerators and freezers

Directive 96/57/EC (Energy Efficiency Requirements for Electrical and Electronic Household Refrigerators, Freezers and Combinations Thereof)

This Directive is applicable until June 30, 2010 and will be revoked on July 1, 2010 by THE COMMISSION'S (EC) REGULATION No. 643/2009.

### Ballasts for fluorescent lamps

Directive 2000/55/EC (Energy Efficient Requirements for Ballasts for Fluorescent Lighting)

This Directive is applicable until April 12, 2010 and will be revoked on April 13, 2010 by THE COMMISSION'S (EC) REGULATION No. 245/2009.

### Make a note of the dates – Confirm conformity

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.

And please note: 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.

We can also use, for example, the following test systems to test compliance with the eco-design requirements and for tests relating to the EU Energy Label:

- 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

### **Make use of our precision measuring systems and benefit from our expertise**

We can perform the special measuring tasks required, and can issue a certificate of conformity for you.

### **Our services:**

- All tests of ecodesign 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



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