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Guide to eco-design for energy-using products

用能产品环境意识设计导则

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Foreword

This standard by the National Standardization Technical Committee Environmental electrical and electronic products and systems (SAC/TC297) and focal points. The standard main drafting unit. Electrical Machinery Industry Beijing Technology and Economy Institute, Changshu Switchgear Manufacturing Co., Ltd., the Ministry of Information Industry Telecommunications Research Institute, Chinese Academy of Sciences Electric, Siemens (China) Co., Ltd., Shanghai Electric Tool Research Institute, Shanghai Electric Institute of Science (Group) Co., Ltd., China Household Electrical Appliances Research Institute, China Quality Certification Center, TBEA Shenyang Transformer Group Co., Ltd., Lenovo (Beijing) Co., Ltd. The main drafters of this standard. Guo Liping, Zhou Jianxing, Fang Xiaoyan, Wu Guoping, Stacks, Wu Di, SOCIETY FOR Huangkai Yun, Liu Yanbin, Zhang Liang, Liu Jiang, Ji Hui Yu, Zhu Yan, Mo Xing Bo, Tao Hongzhi, Shuang Qi, Han Hongjun. This standard is the first release.

In all products, using products account for a large proportion in all regions of the world's natural resources and energy consumption. Energy-using products on the ring Habitat also produced a number of important implications. Even having the same function or a similar function in the same class of energy-using products, the consumption of natural resources, Energy and the impact on the environment is different, and even a big difference. In order to achieve sustainable development, we should be encouraged by the manufacturer of energy-using products The negative impact on the environment and to identify the main sources of preventive measures, continue to improve the environmental performance of energy-using products that reduce environmental Negative Effects. Environmentally conscious design is also known as "green design", "environmental design." The basic idea is that in the product design phase and environmental factors will be pre Wherein the anti-pollution measures into the design goals and environmental performance as the

starting point of the product, taking into account function and quality to the product of the same. When, through the implementation of environmentally conscious design, with the continuous improvement of the environmental performance of energy products.

Environmentally conscious design is the environmental impact of precautionary. One of the measures. Reduce the environmental impact of energy-using products, so as to achieve a high level of protection of the environment, and finally to other consumers and energy for the final product. Users can benefit. Through the necessary channels to inform consumers using products to improve the results of the environmental impact, and to guide them on how environmentally friendly. The use of energy-using products is necessary. Taking into account the energy-using products in various categories, the performance of different structures, this standard aims to propose using products implement environmentally conscious design of generic guide then. Environmentally conscious design for specific energy-using products, we need to refer to relevant national standards or industry standards based on product characteristics. Using products environmentally conscious design guidelines

1 Scope

China's national guide to environmentally conscious design for energy-using products. It gives the principles, the framework and the methods by which environmental considerations are integrated into the design and development of products that consume energy in use. The premise of eco-design is a single observation that is not obvious until it is stated: most of the environmental impact of a product is determined at the design stage, before anything is built, and very little of it can be changed afterwards. Once a product is designed, its energy consumption in use, the materials in it, whether it can be repaired, whether it can be taken apart at the end, and what happens to it then are all fixed - manufacturing improvements move the total by a few per cent, while a design decision can move it by half. And for an energy-using product the balance is heavily weighted toward use: a motor, a boiler, an appliance or a machine tool consumes over its life many times the energy that went into making it, so a design that trades a little more material for better efficiency is almost always right. The guide therefore sets out how to do the analysis rather than what answer to reach: identifying the environmental aspects across the whole life cycle, from raw materials through manufacture, distribution, use and end of life; determining which of them are significant, since effort spent on the wrong stage is wasted; setting design objectives against those; considering the trade-offs, because improving one aspect frequently worsens another; and integrating the process into the organisation's existing design and development procedure rather than running it separately. Issued on 20 April 2009 and in force since 1 December 2009.

This standard specifies the terminology can be environmentally conscious product design involves the use, environmentally conscious design preparation, environmentally conscious design implementation through. With environmentally conscious design requirements and

specific requirements for environmentally conscious design. This standard can be used as general requirements for environmentally conscious design of energy-using products, for all those involved in energy-using product design and development staff to make Use; use of this standard can help users understand the product's environmental performance with the performance of the product. This standard applies to rely on the work of energy electrical and electronic products. This standard does not apply to vehicles for environmentally conscious design, NA We can not be independent in the market alone can not assess the environmental impact of energy-using products and spare parts. NOTE. For product samples, heating and water heating equipment, electrical systems, home lighting and the tertiary industry, household appliances, household and commercial use of office equipment, consumer Electronic systems and heat ventilation and air conditioning systems.

2 Normative references

Terms of the following documents by the standard reference and become the standard terms. For dated references, all subsequent Amendments (excluding corrections) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 20877-2007 standard electrical products introduced environmental factors guidelines (IEC Guide109.2003, IDT)

GB/T 21273 for environmentally conscious design electrician environmental aspects into product design and development (

GB/T 21273-2007, IEC Guide114.2005, IDT)

GB/T 21474-2008 waste electrical and electronic product reuse and recycling system Evaluation Guidelines

GB/T 24001-2004 Environmental management systems - Requirements with guidance for use (ISO 14001.2004, IDT)

GB/T 24040-2008 Environmental management - Life cycle assessment - Principles and framework (ISO 14040.2006, IDT)

GB/T 24050 environmental management terminology (GB/T 24050-2000, idt

ISO 14050.1998) Environmental Awareness

IEC 62430 electrical and electronic product design

3 Terms and Definitions

GB/T 20877-2007, GB/T 21273, GB/T 21474-2008, GB/T 24001-2004, GB/T 24040-2008, And the following terms and definitions GB/T 24050 apply to this standard established.

3.1 Rely on the work of Energy (electricity, fossil fuels and renewable energy) to complete the intended function of the product, or used to generate, transform, and measure this Energy products, including work and rely on energy-using products intended to be assembled into parts. These parts can be used as a single offer for end users Parts on the market and/or put into use, and the performance of its environmental performance can be assessed independently.

3.2 For fitting to use on the part of energy products. They can not as individual parts for end users on the market and/or put into making Use, performance or its environmental performance can be assessed independently.

3.3 All materials used in energy-using product lifecycle.

Note. Includes only energy-using products manufactured materials, but also in the use of energy-using products, parts and components required for maintenance phase spares, consumables and so on.