

机械工程

机电产品生命周期评价指标与量化方法研究

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摘要:

在系统分析机电产品生命周期特点基础上,确定了系统研究边界与范围,建立了机电产品环境影响评价指标体系,详细阐述了评价指标的量化计算方法.最后以小型电机为例验证了评价指标体系的合理性和量化方法的可行性.

关键词: 生命周期评价;指标体系;量化方法;机电产品

A life cycle assessment indicators system and quantification methods of electromechanical products

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Abstract:

The system boundaries and scopes were defined after presenting the life cycle process model of electromechanical products, and the key assessment issues were analyzed. Then, the environment-impact indicators system of electromechanical products was found considering the design factors, including technique attributes, economic attributes and environmental attributes. The quantification methods of assessment factors were discussed in detail. Finally, the rationality of indicators system and the feasibility of quantification methods were proved by its application on a pint-sized electromotor.

Keywords: life cycle assessment (LCA); indicators system; quantification methods; electromechanical products

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