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ILNAS

Institut luxembourgeois de la normalisation
de l'accréditation, de la sécurité et qualité
des produits et services

ILNAS-EN 50693:2019

Product category rules for life cycle assessments of electronic and electrical products and systems

Verfahren zur quantitativen, umweltgerechten Produktgestaltung durch Ökobilanzen und Umweltdeklarationen mittels

Règles de définition des catégories de produits pour l'analyse du cycle de vie des produits et systèmes électriques et électroniques

08/2019

National Foreword

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English Version

Product category rules for life cycle assessments of electronic and electrical products and systems

Règles de définition des catégories de produits pour l'analyse du cycle de vie des produits et systèmes électriques et électroniques

Verfahren zur quantitativen, umweltgerechten Produktgestaltung durch Ökobilanzen und Umweltdeklarationen mittels Produktkategorieregeln für elektronische und elektrotechnische Geräte

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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European foreword

This document (EN 50693:2019) has been prepared by CLC/TC 111X “Environment”.

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-08-12
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2022-08-12

The TC 111X Working Group 8 has been assigned to deal with the NWIP to define product category core rules for life cycle assessment as basis for environmental declarations. This document has been elaborated to ensure a harmonized and compatible approach through harmonized methods of assessing the environmental performance and providing environmental declarations for electrical and electronic products and systems (EEPS).

Key points:

a) requirements how to conduct life cycle assessments for environmental declarations;

b) requirements how to compile an associated life cycle assessment report;

c) requirements how to develop product specific rules in vertical, product specific technical committees.

It is the intention of the working group that this document, once finalized as European standard, will be further processed to an international consensus in IEC according to the UAP procedure agreement between CENELEC and IEC.

Future standards defining product specific rules have to be consistent with this standard during their preparation. Any product specific standard already including these topics, e.g. EN 50598-3, should adapt their content to this standard within their usual maintenance circles.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

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Introduction

In the recent years, environmental aspects of electrical and electronic products and systems gained in importance for interested parties, such as customers and regulators.

In addition to qualitative approaches already widely applied in the context of environmental conscious design process, quantitative information on the potential environmental impacts of the full life cycle of products gained further interest. This generates the need to provide harmonized rules for the underlying life cycle assessment (LCA) in order to provide robust and consistent quantitative environmental data on electrical and electronic products and systems (EEPS), as well as to enable data aggregation at system level, like e.g. buildings, power drive systems and control cabinets.

The definition of product category rules (PCR), derived from EN ISO 14025, is an established method for a consistent approach by setting minimum quality standards for life cycle assessment in context to environmental product declarations (EPD) and hence are now defined as core rules in this standard for the variety of electrical and electronic products and systems.

On the base of the overarching PCR set out as core rules for EEPS, product specific rules (PSR) should be elaborated to further detail the requirements for the LCA in the specific context of the products or systems in scope. This can be done e.g. by product specific standardization committees or environmental declaration programs.

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1 Scope

This document defines product category rules (PCR) for electronic and electrical products and systems (EEPS). It specifies the process and requirements on how to conduct life cycle assessment in the context of environmental declarations.

PCR is complemented by additional product-specific rules (PSR), which further define e.g. functional units and default scenarios in the product-specific context. Therefore, it also provides guidance on how to develop PSR in corresponding technical committees.

This document provides common rules for:

a) life cycle assessment (LCA), including the requirements for developing default scenarios;

b) the LCA report;

c) the development of product specific rules.

This document provides further guidelines for environmental declarations.

The basic LCA principles and framework are based on the EN ISO 14040 series of standards (i.e EN ISO 14040 and ISO 14044), and therefore out of scope of the standard.

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2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN ISO 14040, *Environmental management - Life cycle assessment - Principles and framework (ISO 14040)*

EN ISO 14044:2006, *Environmental management - Life cycle assessment - Requirements and guidelines (ISO 14044:2006)*

EN ISO 14020, *Environmental labels and declarations - General principles (ISO 14020)*

EN ISO 14021:2016, *Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) (ISO 14021:2016)*

EN ISO 14025, *Environmental labels and declarations - Type III environmental declarations - Principles and procedures (ISO 14025)*

CEN ISO/TS 14027, *Environmental labels and declarations – Development of product category rules*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1
collection
means the gathering of waste, including the preliminary sorting and preliminary storage of waste for the purposes of transport to a waste treatment facility

[SOURCE: Directive 2008/98/EC]

3.2
co-product
two or more products coming from the same unit process or product system

Note 1 to entry: Co-product, by-product and product have the same status and are used for identification of several distinguished flows of products from the same unit process. From co-product, by-product and product, waste is the only output to be distinguished as a non-product.

[SOURCE: EN ISO 14040:2006, 3.10]

3.3
cut-off criteria
specification of the amount of material or energy flow or the level of environmental significance associated with unit processes or product system to be excluded from a study

[SOURCE: EN ISO 14040:2006, 3.18]

3.4
declared unit
quantity of the product used as a reference unit for the environmental declaration when a functional unit cannot be directly used

Note 1 to entry: The declared unit might differ from the functional unit in terms of the declaration.

[SOURCE: EN 15804:2012+A1:2013, 3.8, modified]

3.5
disposal
operation which is not recovery even where the operation has as a secondary consequence the reclamation of substances or energy

Note 1 to entry: Annex I of Directive 2008/98/EC sets 231 out a non-exhaustive list of disposal operations.

[SOURCE: EN 50625-1:2014, 3.12]

3.6
energy recovery
production of useful energy through direct and controlled combustion or other processing of waste

Note 1 to entry: Energy recovery is a recovery operation where the material is used principally as a fuel or other means to generate energy, see R1 of Annex II of Directive 2008/98/EC

[SOURCE: EN 50625-1:2014, 3.14]

3.7
environment
surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans and their interrelationships

Note 1 to entry: Surroundings can extend from within an organization to the local, regional and global system.

Note 2 to entry: Surroundings can be described in terms of biodiversity, ecosystems, climate or other characteristics.

[SOURCE: EN ISO 14001:2015, 3.2.1]

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