IEC 63237-1

Edition 1.0   2022-10

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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Household and similar electrical appliances – Product information properties – Part 1: Fundamentals

**Appareils électrodomestiques et analogues – Propriétés des informations produit –
Partie 1: Principes essentiels**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – PRODUCT INFORMATION PROPERTIES –

Part 1: Fundamentals

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.

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IEC 63237-1 has been prepared by IEC technical committee 59: Performance of household and similar electrical appliances. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
59/799/FDIS	59/801/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

A list of all parts in the IEC 63237 series, published under the general title *Household and similar electrical appliances – Product information properties*, can be found on the IEC website.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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INTRODUCTION

Due to progressing developments in the fields of digitalization, the Internet of Things (IoT) and smart manufacturing, product characterization needs to be raised to the next level. The exchange of product data between companies, business partners and, in the future, various databases at business and governmental level, can run smoothly only when the information to be exchanged has been clearly defined. To enable the automatic exchange of product information, it is vital that manufacturers, trade partners, regulators and authorities speak "one language", a harmonized language.

This document is aimed at all parties on the market who have a need to exchange product data very efficiently.

This document describes a method for standardization and a unique characterization of product specification information which will help both suppliers and partners to optimize workflows, business, and implementation of legislative measures in the industrial sector of household and similar appliances. By using a "common appliance language", an optimization of data exchange and digitalization will be achieved, conflicting situations between appliances will be minimized, and the cost of running data systems will be reduced. In addition, the use of a "common appliance language" will allow and simplify the data information exchange between appliances themselves (not necessarily from the same manufacturer) with a view to optimize the interactions and the energy consumptions. To achieve the above-mentioned targets, it is necessary to define a common set of standardized product properties, also called "product characteristics", including value lists.

NOTE   Terms and definitions used in other standards of IEC/TC 59 can be different to some extent. It is the goal of IEC/TC 59 to harmonize these as much as possible.

This document provides a clear characterization of a set information properties. This document is to be used in conjunction with the relevant standard for the specific product. The content will be transferred to the IEC Common Data Dictionary (CDD).

The method described herein provides enough detailed information for an unambiguous electronic data exchange for the business area of electrical household and similar appliances. There is no other IEC standard providing descriptions for electronic data exchange between electric household and similar appliances, which is a limitation for electronic data exchange.

It is the aim to continuously harmonize the content of this document by taking into account present classification systems (e.g. APPLiA PI, ECLASS and ETIM).

HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – PRODUCT INFORMATION PROPERTIES –

Part 1: Fundamentals

1 Scope

This part of IEC 63237 provides a method for standardizing the descriptions of household electrical appliances.

The aims of this document are to:

- define a common language for customers and suppliers through the publication of classes, represented by properties and their attributes;
- enable electronic data exchange by machines (including information technology systems, see machine-to-machine communication [M2M]);
- optimize workflows between customers and suppliers, as well as in processes, such as engineering, development and purchasing within their own organizations;
- offer also a dictionary to legislators; and
- reduce transaction costs.

This document describes household electrical appliances using properties and makes the associated properties available in the IEC Common Data Dictionary (IEC CDD).

Furthermore, this document provides rules, methods and the generic data structure for product specific classification standards and on how to produce a reference dictionary based on the IEC 61360 series. This in turn creates a descriptive basis of company internal and external descriptions of household electrical appliances based on structured classes and lists of properties.

NOTE   The terms "class", "properties" and "attributes" are defined in Clause 3, following the established definitions in IEC and ISO documents.

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.

IEC 61360-1:2017, *Standard data elements types with associated classification scheme – Part 1: Definitions – Principles and methods*

IEC 61360-2, *Standard data element types with associated classification scheme for electric components – Part 2: EXPRESS dictionary schema*

IEC 61360-4[1], *Standard data element types with associated classification scheme for electric components – Part 4: IEC reference collection of standard data element types and component classes*

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[1]   Withdrawn.

IEC 61360-4 DB, *Common Data Dictionary, CDD*, available at: https://cdd.iec.ch

3 Terms, definitions and abbreviated terms

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

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

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

3.1 Terms and definitions

3.1.1
attribute
characteristic of an object or entity

EXAMPLE   Properties, blocks, LOPs, units of measure.

[SOURCE: ISO/IEC 11179-1:2015, 3.1.1, modified – Example has been added.]

3.1.2
classification
systematic division of a set of items into subsets according to their difference in some predetermined characteristics

[SOURCE: IEC 61360-1:2017, 3.1.5]

3.1.3
class
abstraction of a set of similar products

Note 1 to entry: A product that complies with the abstraction defined by a class is called a class member.

Note 2 to entry: A class is an intentional concept that can take different extensional meanings in different contexts. The set of products used by a particular enterprise and the set of all ISO-standardized products are two examples of contexts. In these two contexts (the particular enterprise and ISO), the set of products that are considered as members of the single ball bearing class can be different, in particular because employees of each enterprise ignore a number of existing single ball bearing products.

[SOURCE: IEC 61360-2:2012, 3.6, modified – Notes to entry 2, 3, 4 and 5 have been omitted, and the example has been rewritten to become the present Note 2 to entry.]

3.1.4
data
facts about an object

[SOURCE: ISO 9000:2015, 3.8.1]

3.1.5
information
meaningful data

[SOURCE: ISO 9000:2015, 3.8.2]

3.1.6
characteristic
distinguishing feature