

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



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**Low-voltage switchgear and controlgear – Product data and properties for  
information exchange –  
Part 1: Catalogue data**

**Appareillage à basse tension – Données et propriétés de produits pour  
l'échange d'informations –  
Partie 1: Données de catalogue**



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INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
ELECTROTECHNIQUE  
INTERNATIONALE

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ICS 29.130.20

ISBN 978-2-8322-4547-7

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# INTERNATIONAL ELECTROTECHNICAL COMMISSION

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## **LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR – PRODUCT DATA AND PROPERTIES FOR INFORMATION EXCHANGE –**

### **Part 1: Catalogue data**

#### **FOREWORD**

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International Standard IEC 62683-1 has been prepared by subcommittee 121A: Low-voltage switchgear and controlgear, of IEC technical committee 121: Switchgear and controlgear and their assemblies for low voltage.

This first edition cancels and replaces the second edition of IEC 62683 published in 2015. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the second edition of IEC 62683:

- a) new device class descriptions;
- b) new associated properties;
- c) slight modifications of some properties.

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

FDIS	Report on voting
121A/152/FDIS	121A/156/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62683 series, published under the general title *Low-voltage switchgear and controlgear – product data and properties for information exchange*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://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- withdrawn,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

Mainly large customers and wholesalers are requesting standardized product descriptions and product properties to product manufacturers. However, all stakeholders will benefit from this standardized presentation and data exchange.

Multiple associations or groups of actors launched different initiatives to try to respond to this demand but, due to the lack of standardization of classes and properties, the situation is not satisfactory neither for customers nor for manufacturers.

In order to keep the lead of product description, IEC proposes a new consistent solution within its product standards.

The purpose of this document is to:

- define device classes and properties for low-voltage switchgear and controlgear in a dedicated standard,
- provide a basis for introduction of the low-voltage switchgear and controlgear classes and properties into the IEC 61360 database maintained by IEC SC3D (see <http://std.iec.ch/iec61360>).

This document is not intended to establish a hierarchy of product classes called classification.

The intended benefits of this document are to:

- reduce the costs, time and efforts of mapping data for each customer request;
- optimize the workflow of B2B exchanges;
- minimize duplication of articles in customer inventories and in databases;
- minimize losses and misinterpretation of data during exchanges;
- facilitate the selection of a product, especially regarding reliability and safety;
- give access to product data everywhere regardless of country, language and culture;
- provide product data related to environmental aspects such as material declaration;
- contribute to the fast growth of e-business by simplifying the development of
  - e-catalogue allowing the differentiation of products performances, certificates, etc;
  - e-commerce: use of electronic networks to exchange information, products, services and payments for commercial and communication purposes between individuals (consumers) and businesses, and between businesses themselves.

The output of this document consists of:

- reference dictionary of low-voltage switchgear and controlgear using existing terms from IEC standards. However, terminology used in e-business may be relevant for the purpose of naming classes in this document to get a high level of acceptance;
- properties for e-commerce purposes, conformity of properties with product standards being the main goal of this document.

NOTE The classes "under consideration" are for information only and are intended to be completed during the next maintenance cycle.

For this project, the introduction of low-voltage switchgear and controlgear within the IEC 61360 database needs to address the following technical aspects:

- IEC 61360 requires mandatory attributes. The complete set of mandatory attributes with additional relevant attributes for low-voltage switchgear and controlgear will be available within the IEC 61360 database. At the development stage, the CDD 62683 database is available at the following address:

<https://cdd.iec.ch/cdd/iec62683/iec62683.nsf>. Within the present document, only the most useful attributes will be presented;

- The switchgear and controlgear data model is implemented in an appropriate domain of the IEC Component Data Dictionary (CDD), IEC 61360, by creating dictionaries of blocks, classes and properties.

# LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR – PRODUCT DATA AND PROPERTIES FOR INFORMATION EXCHANGE –

## Part 1: Catalogue data

### 1 Scope

This document establishes the reference dictionary of the general description of low-voltage switchgear and controlgear classes based on defined properties.

This dictionary is used to facilitate the exchange in electronic format of data describing low-voltage switchgear and controlgear.

This document provides clear and unambiguous definitions of a limited number of properties and classes which are mainly used for presentation, selection and identification of products particularly in electronic catalogues.

Each property has an unambiguously defined meaning and naming, and, where relevant, a defined value list, a defined format and a defined unit.

The intention is not to cover manufacturer-specific features.

### 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 60947-1:2007, *Low-voltage switchgear and controlgear – Part 1: General rules*  
IEC 60947-1:2007/AMD1:2010  
IEC 60947-1:2007/AMD2:2014

IEC 61360-1, *Standard data element types with associated classification scheme for electric items – Part 1: Definitions – Principles and methods*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60947-1 and the following 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

##### **attribute**

data element for description of a property, a relation or a device class

EXAMPLE The name of a property, the code of a class, the unit of measure of a property