



SLOVENSKI STANDARD

SIST EN 62683:2013

01-julij-2013

Nizkonapetostne stikalne in krmilne naprave - Podatki o izdelku in njegovih lastnostih za izmenjavo informacij (IEC 62683:2013)

Low-voltage switchgear and controlgear - Product data and properties for information exchange (IEC 62683:2013)

Niederspannungsschaltgeräte - Produktdaten und -eigenschaften für den Informationsaustausch (IEC 62683:2013)

Appareillage à basse tension - Données et propriétés de produit pour l'échange d'information (CEI 62683:2013)

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29.130.20	Nizkonapetostne stikalne in krmilne naprave	Low voltage switchgear and controlgear
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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 62683

May 2013

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English version

**Low-voltage switchgear and controlgear -
Product data and properties for information exchange
(IEC 62683:2013)**

Appareillage à basse tension -
Données et propriétés de produits pour
l'échange d'informations
(CEI 62683:2013)

Niederspannungsschaltgeräte -
Produkt Daten und -eigenschaften für den
Informationsaustausch
(IEC 62683:2013)

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This European Standard was approved by CENELEC on 2013-04-15. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 17B/1802/FDIS, future edition 1 of IEC 62683, prepared by SC 17B, "Low-voltage switchgear and controlgear", of IEC TC 17, "Switchgear and controlgear" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62683:2013.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2014-01-15
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2016-04-15

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Endorsement notice

The text of the International Standard IEC 62683:2013 was approved by CENELEC as a European Standard without any modification.

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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60715	NOTE	Harmonised as EN 60715.
IEC 60947-3	NOTE	Harmonised as EN 60947-3.
IEC 60947-4-2	NOTE	Harmonised as EN 60947-4-2.
IEC 60947-5-1:2003	NOTE	Harmonised as EN 60947-5-1:2004 (not modified).
IEC 60947-5-2:2007	NOTE	Harmonised as EN 60947-5-2:2007 (not modified).
IEC 60947-5-5:1997 + A1:2005	NOTE	Harmonised as EN 60947-5-5:1997 + A1:2005 (not modified).
IEC 60947-6-1:2005	NOTE	Harmonised as EN 60947-6-1:2005 (not modified).
IEC 60947-6-2	NOTE	Harmonised as EN 60947-6-2.
IEC 60947-7-2:2009	NOTE	Harmonised as EN 60947-7-2:2009 (not modified).
IEC 60947-7-3:2009	NOTE	Harmonised as EN 60947-7-3:2009 (not modified).
IEC 60947-8	NOTE	Harmonised as EN 60947-8.
IEC 61095	NOTE	Harmonised as EN 61095.
IEC 61987-10	NOTE	Harmonised as EN 61987-10.
ISO 13850:2006	NOTE	Harmonised as EN ISO 13850:2008 (not modified).
ISO 14025	NOTE	Harmonised as EN ISO 14025.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60947-1	2007	Low-voltage switchgear and controlgear - Part 1: General rules	EN 60947-1	2007
IEC 61360-1	-	Standard data elements types with associated classification scheme for electric items - Part 1: Definitions - Principles and methods	EN 61360-1	-

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Low-voltage switchgear and controlgear – Product data and properties for
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Appareillage à basse tension – Données et propriétés de produits pour
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR –
PRODUCT DATA AND PROPERTIES FOR INFORMATION EXCHANGE**
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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International Standard IEC 62683 has been prepared by the subcommittee 17B: Low-voltage switchgear and controlgear, of the IEC technical committee 17: Switchgear and controlgear.

The text of this standard is based on the following documents:

FDIS	Report on voting
17B/1802/FDIS	17B/1816/RVD

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

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

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication 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. However, all stakeholders will benefit from this standardised 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 standardisation 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 International Standard 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](http://std.iec.ch/iec61360) maintained by IEC/SC3D (see <http://std.iec.ch/iec61360>).

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

The intended benefits of this standard 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 the 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, between businesses themselves.

The output of this standard 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 standard to get a high level of acceptance;
- properties for e-commerce purposes, conformity of properties with product standards being the main goal of this standard.

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 aspect:

- 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. 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. A device class is therefore created using reference links to these dictionaries.

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

1 Scope

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

This standard 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 to produce a reference dictionary which allows a general description of low-voltage switchgear and controlgear classes based on the defined properties. The intention is not to cover manufacturer specific features.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 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 of IEC 60947-1, as well as the following terms and definitions apply.

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 measure unit of a property.

3.2

block (of properties)

collection of properties describing one common aspect of the device class

Note 1 to entry: A block is a feature class in the sense of IEC 61360-1 and ISO 13584-42.

EXAMPLE Diagnostic functions, control circuit.

3.3

cardinality

pattern defining the number of times a concept reoccurs within a description

Note 1 to entry: Cardinality allows a block of properties contained in a list of properties to be used more than once for a particular transaction in order to describe, for example, a device with several different outputs or more than one process cases.

Note 2 to entry: Cardinality is defined by IEC 61987-10.

3.4

device

material element or assembly of such elements intended to perform a required function

Note 1 to entry: In this standard, a device corresponds to a low voltage switchgear and controlgear.

[SOURCE: IEC 60050-151:2001, 151-11-20, modified – replacement of the note]

3.5

device class

set of properties which gives a description of a device

3.6

polymorphism

pattern that allows substitution of a single concept in the same context by a different more specific (specialized) concept

Note 1 to entry: A specialised polymorphic block of properties can replace a more generic one in the same context. A polymorphic operator (control property) can act in selecting between of various specialisations.

Note 2 to entry: Polymorphism is defined by IEC 61987-10.

3.7

property

defined parameter suitable for the description and differentiation of device class specific characteristic describing an aspect of device class

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4 General

The attributes shall follow IEC 61360-1.

Based on IEC 61360-1 data model, the structured data called cardinality and polymorphism may be used.

5 Properties

5.1 Criteria for naming properties

In order to maintain consistency and clarity in the naming of properties, terms from product standards shall be used when there available.

Synonymous names may be associated with the property name when well established terms are used on the market.

5.2 Attributes of a property

The following attributes of a property are considered in this standard: identifier (code, version number, revision number), preferred name, definition, source document, data type, unit of measure, value format, value list.