



**NSAI**  
Standards

Irish Standard  
I.S. EN 62683:2015

# Low-voltage switchgear and controlgear - Product data and properties for information exchange

**I.S. EN 62683:2015**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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*This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):*

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## National Foreword

I.S. EN 62683:2015 is the adopted Irish version of the European Document EN 62683:2015, Low-voltage switchgear and controlgear - Product data and properties for information exchange

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EUROPEAN STANDARD

**EN 62683**

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2015

ICS 29.130.20

Supersedes EN 62683:2013

English Version

**Low-voltage switchgear and controlgear - Product data and  
properties for information exchange  
(IEC 62683:2015)**

Appareillage à basse tension - Données et propriétés de  
produits pour l'échange d'informations  
(IEC 62683:2015)

Niederspannungsschaltgeräte - Produktdaten und -  
eigenschaften für den Informationsaustausch  
(IEC 62683:2015)

This European Standard was approved by CENELEC on 2015-10-02. 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.

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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

**EN 62683:2015****European foreword**

The text of document 121A/47/FDIS, future edition 2 of IEC 62683, prepared by SC 121A "Low-voltage switchgear and controlgear" of IEC/TC 121 "Switchgear and controlgear and their assemblies for low voltage" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62683:2015.

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) 2016-07-02
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-10-02

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

IEC 60127-1	NOTE	Harmonized as EN 60127-1.
IEC 60715	NOTE	Harmonized as EN 60715.
IEC 60947-2:2006	NOTE	Harmonized as EN 60947-2:2006 (not modified).
IEC 60947-3	NOTE	Harmonized as EN 60947-3.
IEC 60947-4-1:2009 and A1:2012	NOTE	Harmonized as EN 60947-4-1:2010 (not modified) and as EN 60947-4-1:2010/A1:2012 (not modified).
IEC 60947-4-2:2011	NOTE	Harmonized as EN 60947-4-2:2012 (not modified).
IEC 60947-4-3	NOTE	Harmonized as EN 60947-4-3.
IEC 60947-5-1:2003	NOTE	Harmonized as EN 60947-5-1:2004 (not modified).
IEC 60947-5-2:2007	NOTE	Harmonized as EN 60947-5-2:2007 (not modified).
IEC 60947-5-4	NOTE	Harmonized as EN 60947-5-4.

IEC 60947-6-1:2005	NOTE	Harmonized as EN 60947-6-1:2005 (not modified).
IEC 60947-6-2	NOTE	Harmonized as EN 60947-6-2.
IEC 60947-7-1:2009	NOTE	Harmonized as EN 60947-7-1:2009 (not modified).
IEC 60947-7-2:2009	NOTE	Harmonized as EN 60947-7-2:2009 (not modified).
IEC 60947-7-3:2009	NOTE	Harmonized as EN 60947-7-3:2009 (not modified).
IEC 60947-8	NOTE	Harmonized as EN 60947-8.
IEC 60999-1:1999	NOTE	Harmonized as EN 60999-1:2000 (not modified).
IEC 61058-1:2000	NOTE	Harmonized as EN 61058-1:2002 (modified).
IEC 61095	NOTE	Harmonized as EN 61095.
IEC 61140:2001	NOTE	Harmonized as EN 61140:2002 (not modified).
IEC 61672-1:2013	NOTE	Harmonized as EN 61672-1:2013 (not modified).
IEC 61987-10	NOTE	Harmonized as EN 61987-10.
IEC 62262:2002	NOTE	Harmonized as EN 62262:2002 (not modified).
IEC 82079-1:2012	NOTE	Harmonized as EN 82079-1:2012 (not modified).
ISO 13850:2006	NOTE	Harmonized as EN ISO 13850:2008 (not modified).
ISO 14025	NOTE	Harmonized 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 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529	1991
-	-		+ corrigendum May	1993
IEC 60947-1	2007	Low-voltage switchgear and controlgear - Part 1: General rules	EN 60947-1	2007
+ A1	2010		+ A1	2011
+ A2	2014		+ A2	2014
IEC 61360-1	-	Standard data elements types with associated classification scheme for electric items - Part 1: Definitions - Principles and methods	EN 61360-1	-





**IEC 62683**

Edition 2.0 2015-08

# **INTERNATIONAL STANDARD**

# **NORME INTERNATIONALE**



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**Low-voltage switchgear and controlgear – Product data and properties for information exchange**

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





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**IEC 62683**

Edition 2.0 2015-08

# **INTERNATIONAL STANDARD**

# **NORME INTERNATIONALE**



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**Low-voltage switchgear and controlgear – Product data and properties for  
information exchange**

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

INTERNATIONAL  
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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

#### FOREWORD

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

This second edition cancels and replaces the first edition published in 2013. This edition constitutes a technical revision.

This present edition includes the following significant technical changes with respect to the first edition:

- a) new descriptions of 41 classes for the families of circuit-breakers and their associated devices (ACC2xx), switches and disconnectors (ACC3xx), control switches (ACC5xx) and terminal blocks (ACC7xx) in addition to 14 classes for motor-starters of the first edition;
- b) new associated properties and value lists necessary for the new classes;
- c) three new blocks of properties: ACC017 Head of the control circuit device, ACC018 Light block of the control circuit device and ACC041 Over-current release;

- d) use of LEVEL\_TYPE for replacing minimum and maximum properties into a single property with two values.

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

FDIS	Report on voting
121A/47/FDIS	121A/53/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 website 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 from product manufacturers. 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 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, certifications and approvals, 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. At the development stage, the [CDD 62683](#) database is

available at the following address:

<http://std.iec.ch/cdd/iec62683/cdddev.nsf/Welcome?OpenPage> . 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

### 1 Scope

This International Standard 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 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 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 60529:1989, *Degrees of protection provided by enclosures (IP Code)*

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 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

EXAMPLE Diagnostic functions, control circuit.

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