SLOVENSKI STANDARD

SIST EN 61915-1:2008

01-marec-2008

Nizkonapetostne stikalne in krmilne naprave - Profili naprav za industrijske naprave, vključ ene v omreģje - 1. del: Splošna pravila za razvoj profilov naprav (IEC 61915-1:2007)

Low-voltage switchgear and controlgear - Device profiles for networked industrial devices - Part 1: General rules for the development of device profiles (IEC 61915-1:2007)

Niederspannungsschaltgeräte - Geräteprofile für vernetzte industrielle Schaltgeräte - Teil 1: Allgemeine Festlegungen für die Entwicklung von Geräteprofilen (IEC 61915-1:2007)

Appareillage à basse tension - Profils d'appareil pour les appareils industriels mis en réseau - Partie 1: Règles générales pour le développement de profils d'appareil (CEI 61915-1:2007)

Ta slovenski standard je istoveten z: **EN 61915-1:2008**

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EUROPEAN STANDARD

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EN 61915-1

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English version

Low-voltage switchgear and controlgear - Device profiles for networked industrial devices - Part 1: General rules for the development of device profiles

(IEC 61915-1:2007)

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This European Standard was approved by CENELEC on 2007-12-01. 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 Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

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Foreword

The text of document 17B/1575/FDIS, future edition 1 of IEC 61915-1, 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 was approved by CENELEC as EN 61915-1 on 2007-12-01.

The following dates were fixed:

– latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2008-09-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2010-12-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61915-1:2007 was approved by CENELEC as a European Standard without any modification.

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

IEC 60947	NOTE	Harmonized in EN 60947 series (not modified).
ISO/IEC 8879	NOTE	Harmonized as EN 28879:1990 (not modified).

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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.

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

Publication	Year	Title	EN/HD	Year
IEC 60559	1989	Binary floating-point arithmetic for microprocessor systems	HD 592 S1	1991
IEC 61131-3	2003	Programmable controllers - Part 3: Programming languages	EN 61131-3	2003
IEC/TR 62390	2005	Common automation device - Profile guideline	-	-
ISO 1000 A1	1992 1998	SI units and recommendations for the use of their multiples and of certain other units	-	-
ISO 15745	Series	Industrial automation systems and integration - Open systems application integration framework	-	-
ISO/IEC 10646	2003	Information technology - Universal multiple-octet coded character set (UCS)	-	-
ISO/IEC 19501	2005	Information technology - Open Distributed Processing - Unified Modeling Language (UML) Version 1.4.2	-	-

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Low-voltage switchgear and controlgear – Device profiles for networked industrial devices –
Part 1: General rules for the development of device profiles**

**Appareillage à basse tension – Profils d'appareil pour les appareils industriels mis en réseau –
Partie 1: Règles générales pour le développement de profils d'appareil**

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LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR – DEVICE PROFILES FOR NETWORKED INDUSTRIAL DEVICES –

Part 1: General rules for the development of device profiles

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 61915-1 has been prepared by subcommittee 17B: Low-voltage switchgear and controlgear, of IEC technical committee 17: Switchgear and controlgear.

This first edition cancels and replaces the IEC/TS 61915 technical specification published in 2003. It now has the status of an International Standard.

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

FDIS	Report on voting
17B/1575/FDIS	17B/1583/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.

A list of all the parts in the IEC 61915 series, under the general title *Low-voltage switchgear and controlgear – Device profiles for networked industrial devices*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result 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.

INTRODUCTION

The purpose of this International Standard is to provide a framework within which IEC product committees can define profiles for devices within their scope.

NOTE This framework follows the principles given in IEC/TR 62390, the "Common automation device – Profile guideline", and refers to ISO 15745, "Industrial automation systems and integration – Open systems application integration framework".

Profiles define a common set of functionality (data and behaviour) for a class of devices in a given industrial domain, thus allowing system designers, system integrators and maintenance staff to handle profile-based devices without special tool configuration. Profiles also provide consistent structuring and semantics of device functionality.

This part of IEC 61915 (Part 1) defines general rules for the development of device profiles for networked industrial devices, including recommendations of general interest and application, for example a documentation template and a profile exchange language. This will allow uniformity of profile structure throughout the different device types.

IEC product committees may define "root device profiles" for their devices, in which they will specify the amount of information which their products should make available through any network, using the general rules defined in this part of IEC 61915. This will facilitate uniformity of profiles throughout the corresponding family of devices. These root device profiles will be published in subsequent parts of the IEC 61915 series.

This International Standard also gives manufacturers or other organizations a common framework to represent their network capable devices.

Manufacturers or other organizations may use the root device profiles specified by the IEC product committees for various device types as a basis for developing device profiles corresponding to their products, using the general rules defined in this part of IEC 61915 to add the required manufacturer-specific extensions. Alternatively, they may develop their own device profiles using only the general rules. These manufacturer's device profiles will typically be published within the product documentation.

This International Standard facilitates the writing of network independent application software.

LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR – DEVICE PROFILES FOR NETWORKED INDUSTRIAL DEVICES –

Part 1: General rules for the development of device profiles

1 Scope

The IEC 61915 series is intended to improve interoperability of devices, network tools and application software.

This part of IEC 61915 defines a framework for common representation of networked industrial devices and provides a template for documenting such a representation, independent of the network used. This framework follows the principles given in IEC/TR 62390, the “Common automation device – Profile guideline”, and refers to ISO 15745, “Industrial automation systems and integration – Open systems application integration framework”.

NOTE 1 The device profile format specified in this part of IEC 61915 is compatible with devices connected to both bit- and byte-oriented networks.

This part of IEC 61915 applies to root device profiles, generic device profiles, and specific device profiles. The root device profiles will be published in subsequent parts of the IEC 61915 series.

NOTE 2 This International Standard is specifically intended for products covered by the IEC 60947 series.

NOTE 3 Organisations such as consortia are encouraged to use the rules defined in this part of IEC 61915 to develop generic device profiles for use within their own organisations.

Users (product manufacturers and other organizations) should use the root device profiles together with the rules defined in this part of IEC 61915. This part of IEC 61915 allows users to make extensions to the root device profiles and/or generic device profiles. Where no suitable root device profile exists, the user may develop generic or specific device profiles using the rules defined in this part of IEC 61915.

This part of IEC 61915 recommends the use of a profile exchange language for representation of the device profile information in order to facilitate the profile’s use by network tools and application software.

NOTE 4 The types of devices may vary from simple devices, such as pilot lights, push-buttons and limit switches, to more complex devices with many bytes of information, such as motor controllers, semiconductor motor starters, etc.

2 Normative references

The following referenced documents are indispensable for the application 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 60559:1989, *Binary floating-point arithmetic for microprocessor systems*

IEC 61131-3:2003, *Programmable controllers – Part 3: Programming languages*

IEC/TR 62390:2005, *Common automation device – Profile guideline*