



SLOVENSKI STANDARD
SIST EN 60947-6-1:2006/A1:2014
01-junij-2014

Nizkonapetostne stikalne naprave - 6-1. del: Večfunkcijska oprema - Oprema za samodejno predajanje stikanja - Dopolnilo A1 (IEC 60947-6-1:2005/A1:2013)

Low-voltage switchgear and controlgear - Part 6-1: Multiple function equipment - Transfer switching equipment

Niederspannungsschaltgeräte - Teil 6-1: Mehrfunktionsschaltgeräte - Netzumschalter

Appareillage à basse tension - Partie 6-1: Matériels à fonctions multiples - Matériels de connexion de transfert

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Ta slovenski standard je istoveten z: EN 60947-6-1:2005/A1:2014

ICS:

29.130.20	Nizkonapetostne stikalne in krmilne naprave	Low voltage switchgear and controlgear
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SIST EN 60947-6-1:2006/A1:2014 **en**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60947-6-1/A1

April 2014

ICS 29.120.40; 29.130.20

English version

**Low-voltage switchgear and controlgear -
Part 6-1: Multiple function equipment -
Transfer switching equipment
(IEC 60947-6-1:2005/A1:2013)**

Appareillage à basse tension -
Partie 6-1: Matériels à fonctions multiples
-
Matériels de connexion de transfert
(CEI 60947-6-1:2005/A1:2013)

Niederspannungsschaltgeräte -
Teil 6-1: Mehrfunktionsschaltgeräte -
Netzumschalter
(IEC 60947-6-1:2005/A1:2013)

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This amendment A1 modifies the European Standard EN 60947-6-1:2005; it was approved by CENELEC on 2014-01-17. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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.

This amendment 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

CENELEC

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

Foreword

The text of document 17B/1830/FDIS, future IEC 60947-6-1:2005/A1, 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 60947-6-1:2005/A1:2014.

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) 2014-10-17
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2017-01-17

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD 2006/95/EC).

Endorsement notice

The text of the International Standard IEC 60947-6-1:2005/A1:2014 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 60364-1:2005 | NOTE | Harmonised as HD 60364-1:2008 (modified). |
| IEC 60364-5-56:2009 | NOTE | Harmonised as HD 60364-5-56:2010 (modified). |

Replace Annex ZA of EN 60947-6-1:2005 by:

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.

Publication	Year	Title	EN/HD	Year
IEC 60695-11-10 A1	1999 2003	Fire hazard testing - Part 11-10: Test flames - 50 W horizontal and vertical flame test methods	EN 60695-11-10 A1	1999 2003
IEC 60947-1 A1	2007 2010	Low-voltage switchgear and controlgear- Part 1: General rules	EN 60947-1 A1	2007 2011
IEC 60947-2 A1 A2	2006 2009 2013	Low-voltage switchgear and controlgear - Part 2: Circuit-breakers	EN 60947-2 A1 A2	2006 2009 2013
IEC 60947-3 A1	2008 2012	Low-voltage switchgear and controlgear - Part 3: Switches, disconnectors, switch- disconnectors and fuse- combination units	EN 60947-3 A1	2009 2012
IEC 60947-4-1 A1	2009 2012	Low-voltage switchgear and controlgear - Part 4-1: Contactors and motor-starters - Electromechanical contactors and motorstarters	EN 60947-4-1 A1	2010 2012
IEC 60947-4-2 A1	1999 2001	Low-voltage switchgear and controlgear - Part 4-2: Contactors and motor-starters -AC semiconductor motor controllers and starters	EN 60947-4-2 A1	2000 2002
IEC 60947-4-3	1999	Low-voltage switchgear and controlgear - Part 4-3: Contactors and motor-starters - AC semiconductor controllers and contactors for non-motor loads	EN 60947-4-3	2000
IEC 60947-6-2 A1	2002 2007	Low-voltage switchgear and controlgear - Part 6-2: Multiple function	EN 60947-6-2 A1	2003 2007

		equipment - Control and protective switching devices (or equipment) (CPS)		
IEC 61000-4-2 A1 A2	1995 1998 2000	Electromagnetic compatibility (EMC) – Part 4-2: Testing and measurement techniques – Electrostatic discharge immunity test	EN 61000-4-2 A1 A2	1995 1998 2001
IEC 61000-4-3 A1	2002 2002	Electromagnetic compatibility (EMC) – Part 4-3: Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test	IEC 61000-4-3 A1	2002 2002
IEC 61000-4-4 A1 A2	1995 2000 2001	Electromagnetic compatibility (EMC) – Part 4-4: Testing and measurement techniques – Electrical fast transient/burst immunity test	EN 61000-4-4 A1 A2	1995 2001 2001
IEC 61000-4-5 A1	1995 2000	Electromagnetic compatibility (EMC) – Part 4-5: Testing and measurement techniques – Surge immunity test	EN 61000-4-5 A1	1995 2001
IEC 61000-4-6 A1	2003 2004	Electromagnetic compatibility (EMC) – Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields	EN 61000-4-6	2007
IEC 61000-4-13 A1	2002 2009	Electromagnetic compatibility (EMC) - Part 4-13: Testing and measurement techniques – Harmonics and interharmonics including mains signalling at a.c. power port, low frequency immunity tests	EN 61000-4-13 A1	2002 2009
CISPR 11 A1	2009 2010	Industrial scientific and medical (ISM) radio-frequency equipment - Electromagnetic disturbance characteristics - Limits and methods of measurement	EN 55011 A1	2009 2010
IEC 60417 (Data base)	-	Graphical symbols for use on equipment	-	-

Replace Annex ZZ of EN 60947-6-1:2005 by:

Annex ZZ
(informative)

Coverage of Essential Requirements of EU Directives

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers protection requirements of Annex I Article 1 of the EU Directive 2004/108/EC.

Compliance with this standard provides presumption of conformity with the specified essential requirements of the Directives concerned.

NOTE: Other requirements and other EU Directives may be applicable to the products falling within the scope of this standard.

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IEC 60947-6-1

Edition 2.0 2013-12

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 1
AMENDEMENT 1

Low-voltage switchgear and controlgear –
Part 6-1: Multiple function equipment – Transfer switching equipment

Appareillage à basse tension –
Partie 6-1: Matériels à fonctions multiples – Matériels de connexion de transfert

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE
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ICS 29.120.40, 29.130.20

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FOREWORD

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

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

FDIS	Report on voting
17B/1830FDIS	17B/1840/RVD

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

The committee has decided that the contents of this amendment and the base 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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[SIST EN 60947-6-1:2006/A1:2014](https://standards.iteh.ai/catalog/standards/sist/32641a1b-5eb1-482e-a380-92efbef223f0/sist-en-60947-6-1-2006-a1-2014)

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INTRODUCTION to the Amendment

This amendment includes the following significant technical changes with respect to the second edition of IEC 60947-6-1 published in 2005:

- clarification of the scope and object;
- update of the normative references;
- clarification of the classification in Clause 4;
- new EMC test: voltage harmonics
- minimum test for derived TSE;
- alignments to the Amendment 1 (2010) of IEC 60947-1:2007:
 - electrically or electronically controlled circuits;
 - markings ("s", "sol", "r" or "f");
 - constructional requirements including material requirements;
 - requirement for screwless terminals;
 - references to EMC test.
- alignments to the Amendment 1 (2012) of IEC 60947-4-1:2009:
 - test at the rated conditional short-circuit current I_q of protected switching devices;
 - short-circuit tests harmonisation.
- creation of bibliography.

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1 Scope and object

<https://standards.iteh.ai/catalog/standards/sist/32641a1b-5eb1-482e-a380-92efbef223f0/sist-en-60947-6-1-2006-a1-2014>

Replace the existing first paragraph of this clause by the following new paragraph:

This part of IEC 60947 applies to transfer switching equipment (TSE) to be used in power systems for transferring a load supply between a normal and an alternate source with a supply interruption during transfer, the rated voltage of which does not exceed 1 000 V a.c. or 1 500 V d.c.

Replace in the second dash of the second paragraph "remote" by "remotely".

Renumber the existing note as "NOTE 1".

Delete, in the existing list, the existing items a) and b) under 1).

Add, at the end of the existing text, the following new notes:

NOTE 2 This standard covers also ATSE or RTSE which can be used for safety services as defined in IEC 60364-1 and for which the installation requirements are given by IEC 60364-5-56.

NOTE 3 Other ATSE requirements are under consideration such as closed transition TSE (make before break transfer operation).

2 Normative references

Replace the existing references to the IEC 60947-1, IEC 60947-2, IEC 60947-3, IEC 60947-4-1 and to the IEC 60947-6-2 by the following new references: