



**SLOVENSKI STANDARD**  
**SIST EN 60947-3:2009/A2:2016**  
**01-julij-2016**

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**Nizkonapetostne stikalne in krmilne naprave - 3. del: Stikala, ločilniki, ločilna stikala in stikalni aparati z varovalkami - Dopnilo A2**

Low-voltage switchgear and controlgear - Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units

Niederspannungsschaltgeräte - Teil 3: Lastschalter, Trennschalter, Lasttrennschalter und Schalter-Sicherungs-Einheiten

Appareillage à basse tension - Partie 3: Interrupteurs, sectionneurs, interrupteurs-sectionneurs et combinés-fusibles

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SIST EN 60947-3:2009/A2:2016  
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**Ta slovenski standard je istoveten z: EN 60947-3:2009/A2:2015**

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**ICS:**

|           |   |  |
|-----------|---|--|
| 29.130.20 | Nizkonapetostne stikalne in krmilne naprave | Low voltage switchgear and controlgear |
|-----------|---|--|

**SIST EN 60947-3:2009/A2:2016**                      **en**

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EUROPEAN STANDARD

**EN 60947-3:2009/A2**

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2015

ICS 29.120.40; 29.130.20

English Version

**Low-voltage switchgear and controlgear - Part 3: Switches,  
disconnectors, switch-disconnectors and fuse-combination units  
(IEC 60947-3:2008/A2:2015)**

Appareillage à basse tension - Partie 3: Interrupteurs,  
sectionneurs, interrupteurs-sectionneurs et combinés-  
fusibles  
(IEC 60947-3:2008/A2:2015)

Niederspannungsschaltgeräte - Teil 3: Lastschalter,  
Trennschalter, Lasttrennschalter und Schalter-Sicherungs-  
Einheiten  
(IEC 60947-3:2008/A2:2015)

This amendment A2 modifies the European Standard EN 60947-3:2009; it was approved by CENELEC on 2015-08-31. 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.

[SIST EN 60947-3:2009/A2:2016](https://standards.iteh.ai/catalog/standards/sist/6e6b68ea-672d-439e-b18e-22090c630819/iec-60947-3-2009-a2-2015)

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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 60947-3:2009/A2:2015****European foreword**

The text of document 121A/42/FDIS, future IEC 60947-3:2008/A2, 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 60947-3:2009/A2:2015.

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) 2016-05-31
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-08-31

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

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.

**Endorsement notice**

The text of the International Standard IEC 60947-3:2008/A2:2015 was approved by CENELEC as a European Standard without any modification.

In the Bibliography of EN 60947-3:2009, the following notes have to be added for the standards indicated:

|                      |      |   |
|----------------------|------|---|
| IEC 60364-7-712:2002 | NOTE | Harmonized as HD 60364-7-712:2005 (not modified). |
| IEC 60664-1          | NOTE | Harmonized as EN 60664-1.                         |

Replace Annex ZA by the following:

## 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 60050-441      | 1984        | International Electrotechnical Vocabulary (IEV)   | -                                    | -           |
| + A1               | 2000        | Chapter 441: Switchgear, controlgear and fuses  | -                                    | -           |
| IEC 60269          | series      | Low-voltage fuses   | EN 60269<br>HD 60269<br>CLC/TR 60269 | series      |
| IEC 60410          | 1973        | Sampling plans and procedures for inspection by attributes  | -                                    | -           |
| IEC 60417-DB       | 2002        | Graphical symbols for use on equipment  | -                                    | -           |
| 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 60947-2        | 2006        | Low-voltage switchgear and controlgear - Part 2: Circuit-breakers   | EN 60947-2                           | 2006        |
| + A1               | 2009        |   | + A1                                 | 2009        |
| + A2               | 2013        |   | + A2                                 | 2013        |
| IEC 60947-4-1      | 2009        | Low-voltage switchgear and controlgear - Part 4-1: Contactors and motor-starters - Electromechanical contactors and motor-starters            | EN 60947-4-1                         | 2010        |
| + A1               | 2012        |   | + A1                                 | 2012        |
| IEC 60947-5-1      | 2003        | Low-voltage switchgear and controlgear - Part 5-1: Control circuit devices and switching elements - Electromechanical control circuit devices | EN 60947-5-1                         | 2004        |
| -                  | -           |   | + corrigendum Nov.                   | 2004        |
| -                  | -           |   | + corrigendum Jul.                   | 2005        |
| + A1               | 2009        |   | + A1                                 | 2009        |

## EN 60947-3:2009/A2:2015

| <u>Publication</u> | <u>Year</u> | <u>Title</u>   | <u>EN/HD</u> | <u>Year</u> |
|--------------------|-------------|--|--------------|-------------|
| IEC 61000-4-2      | 2008        | Electromagnetic compatibility (EMC) - Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test                                 | EN 61000-4-2 | 2009        |
| IEC 61000-4-3      | 2006        | Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test        | EN 61000-4-3 | 2006        |
| + A1               | 2007        |  | + A1         | 2008        |
| -                  | -           |  | + IS         | 2009        |
| + A2               | 2010        |  | + A2         | 2010        |
| IEC 61000-4-4      | 2012        | Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test                         | EN 61000-4-4 | 2012        |
| IEC 61000-4-5      | 2014        | Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test   | EN 61000-4-5 | 2014        |
| IEC 61000-4-6      | 2013        | Electromagnetic compatibility (EMC) - Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields | EN 61000-4-6 | 2014        |
| CISPR 11 (mod)     | 2009        | Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement                             | EN 55011     | 2009        |
| + A1               | 2010        |  | + A1         | 2010        |
| CISPR 22 (mod)     | 2008        | Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement   | EN 55022     | 2010        |
| -                  | -           |  | + AC         | 2011        |

*Replace Annex ZZ by the following:*

**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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<https://standards.iteh.ai/catalog/standards/sist/6e6b68ea-672d-439e-b18e-212067648738/sist-en-60947-3-2009-a2-2016>





IEC 60947-3

Edition 3.0 2015-07

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

AMENDMENT 2  
AMENDEMENT 2

**Low-voltage switchgear and controlgear –  
Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination  
units**

**Appareillage à basse tension –  
Partie 3: Interrupteurs, sectionneurs, interrupteurs-sectionneurs et combinés-  
fusibles**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
ELECTROTECHNIQUE  
INTERNATIONALE

ICS 29.120.40, 29.130.20

ISBN 978-2-8322-2718-3

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## FOREWORD

This amendment 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.

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

|              |                  |
|--------------|------------------|
| FDIS         | Report on voting |
| 121A/42/FDIS | 121A/46/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 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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[SIST EN 60947-3:2009/A2:2016](https://standards.iteh.ai/catalog/standards/sist/6e6b68ea-672d-439e-b18e-212067648738/sist-en-60947-3-2009-a2-2016)

**1 General** <https://standards.iteh.ai/catalog/standards/sist/6e6b68ea-672d-439e-b18e-212067648738/sist-en-60947-3-2009-a2-2016>

## 1.2 Normative references

*Replace the existing subclause by the following new subclause:*

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 60050-441:1984, *International Electrotechnical Vocabulary (IEV) – Chapter 441 Switchgear, controlgear and fuses*

IEC 60050-441:1984/AMD1:2000

IEC 60269 (all parts), *Low-voltage fuses*

IEC 60410:1973, *Sampling plans and procedures for inspection by attributes*

IEC 60417-DB:2002<sup>1</sup>, *Graphical symbols for use on equipment*

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

<sup>1</sup> "DB" refers to the IEC on-line database.

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IEC 60947-2:2006, *Low-voltage switchgear and controlgear – Part 2: Circuit-breakers*  
IEC 60947-2:2006/AMD1:2009  
IEC 60947-2:2006/AMD2:2013

IEC 60947-4-1:2009, *Low-voltage switchgear and controlgear – Part 4-1: Contactors and motor-starters – Electromechanical contactors and motor-starters*  
IEC 60947-4-1:2009/AMD1:2012

IEC 60947-5-1:2003, *Low-voltage switchgear and controlgear – Part 5-1: Control circuit devices and switching elements – Electromechanical control circuit devices*  
IEC 60947-5-1:2003/AMD1:2009

IEC 61000-4-2:2008, *Electromagnetic compatibility (EMC) – Part 4-2: Testing and measurement techniques – Electrostatic discharge immunity test*

IEC 61000-4-3:2006, *Electromagnetic compatibility (EMC) – Part 4-3: Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test*  
IEC 61000-4-3:2006/AMD1:2007  
IEC 61000-4-3:2006/AMD2:2010

IEC 61000-4-4:2012, *Electromagnetic compatibility (EMC) – Part 4-4: Testing and measurement techniques – Electrical fast transient/burst immunity test*

IEC 61000-4-5:2014, *Electromagnetic compatibility (EMC) – Part 4-5: Testing and measurement techniques – Surge immunity test*

IEC 61000-4-6:2013, *Electromagnetic compatibility (EMC) – Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields*

<https://standards.iteh.ai/catalog/standards/sist/6e6b68ea-672d-439e-b18e-212067648738/sist-en-60947-3-2009-a2-2016>

CISPR 11:2009, *Industrial, scientific and medical equipment – Radio-frequency disturbance characteristics – Limits and methods of measurement*  
CISPR 11:2009/AMD1:2010

CISPR 22:2008, *Information technology equipment – Radio disturbance characteristics – Limits and methods of measurement*

## 2 Terms and definitions

*Replace the title and text of the existing clause, modified by Amendment 1, by the following new title and text:*

## 2 Terms, definitions and index of terms

### 2.1 General

For the purposes of this document, the terms and definitions given in IEC 60050-441 and IEC 60947-1 as well as the following apply.

**2.2 Alphabetical index of terms**

|   | Reference |
|---|-----------|
| <b>D</b>                                      |           |
| Disconnecter.....                             | 2.3.1     |
| Disconnecter-fuse.....                        | 2.3.5     |
| Disconnecter-fuse single opening .....        | 2.3.5.1   |
| Disconnecter-fuse double opening .....        | 2.3.5.2   |
| <b>F</b>                                      |           |
| Fuse-combination unit.....                    | 2.3.2     |
| Fuse-disconnector .....                       | 2.3.6     |
| Fuse-disconnector single opening .....        | 2.3.6.1   |
| Fuse-disconnector double opening.....         | 2.3.6.2   |
| Fuse-switch .....                             | 2.3.4     |
| Fuse-switch single opening .....              | 2.3.4.1   |
| Fuse-switch double opening.....               | 2.3.4.2   |
| Fuse-switch-disconnector .....                | 2.3.8     |
| Fuse-switch-disconnector single opening.....  | 2.3.8.1   |
| Fuse-switch-disconnector double opening.....  | 2.3.8.2   |
| <b>S</b>                                      |           |
| Semi-independent manual operation.....        | 2.3.10    |
| Single pole operated three pole device .....  | 2.3.9     |
| Switch-disconnector-fuse .....                | 2.3.7     |
| Switch-disconnector-fuse single opening ..... | 2.3.7.1   |
| Switch-disconnector-fuse double opening.....  | 2.3.7.2   |
| Switch-fuse .....                             | 2.3.3     |
| Switch-fuse single opening .....              | 2.3.3.1   |
| Switch-fuse double opening .....              | 2.3.3.2   |

**2.3 Terms and definitions****2.3.1****disconnecter**

mechanical switching device which, in the open position, complies with the requirements specified for the isolating function

Note 1 to entry: A disconnecter is capable of opening and closing a circuit when either a negligible current is broken or made, or when no significant change in the voltage across the terminals of each of the poles of the disconnecter occurs. It is also capable of carrying currents under normal circuit conditions and carrying, for a specified time, currents under abnormal conditions such as those of short-circuit.

[SOURCE: IEC 60050-441:1984, 441-14-05, modified – reference to isolating function instead of isolating distance]

**2.3.2****fuse-combination unit**

combination of a mechanical switching device and one or more fuses in a composite unit, assembled by the manufacturer or in accordance with his instructions

[SOURCE: IEC 60050-441:1984, 441-14-04]

**2.3.3****switch-fuse**

switch in which one or more poles have a fuse in series in a composite unit

[SOURCE: IEC 60050-441:1984, 441-14-14]