

SLOVENSKI STANDARD
SIST EN 60947-5-5:1999/A2:2017
01-maj-2017

Niskonapetostne stikalne in krmilne naprave - 5-5. del: Krmilne naprave in stikalni elementi - Električna (varnostna) naprava za zaustavitev v sili z mehansko zaporo (EN 60947-5-5:1997/A2:2017) - Dopolnilo A2

Low-voltage switchgear and controlgear - Part 5-5: Control circuit devices and switching elements - Electrical emergency stop device with mechanical latching function EN (60947-5-5:1997/A2:2017)

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Appareillage à basse tension - Partie 5-5: Appareils et éléments de commutation pour circuits de commande - Appareil d'arrêt d'urgence électrique à accrochage mécanique (60947-5-5:1997/A2:2017) <https://standards.iteh.ai/catalog/standards/sist/en-60947-5-5-1999-a2-2017>

Ta slovenski standard je istoveten z: EN 60947-5-5:1997/A2:2017

ICS:

29.120.99	Druga električna dodatna oprema	Other electrical accessories
29.130.20	Niskonapetostne stikalne in krmilne naprave	Low voltage switchgear and controlgear

SIST EN 60947-5-5:1999/A2:2017 **en**

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[SIST EN 60947-5-5:1999/A2:2017](https://standards.iteh.ai/catalog/standards/sist/5afdbc01-18cb-4586-91c7-2b3a9eb6ed3d/sist-en-60947-5-5-1999-a2-2017)

<https://standards.iteh.ai/catalog/standards/sist/5afdbc01-18cb-4586-91c7-2b3a9eb6ed3d/sist-en-60947-5-5-1999-a2-2017>

EUROPEAN STANDARD

EN 60947-5-5:1997/A2

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2017

ICS 29.120.99; 29.130.20

English Version

Low-voltage switchgear and controlgear -
Part 5-5: Control circuit devices and switching elements -
Electrical emergency stop device with mechanical latching
function
(IEC 60947-5-5:1997/A2:2016)

Appareillage à basse tension - Partie 5-5: Appareils et
éléments de commutation pour circuits de commande -
Appareil d'arrêt d'urgence électrique à accrochage
mécanique
(IEC 60947-5-5:1997/A2:2016)

Niederspannungsschaltgeräte - Teil 5-5: Steuergeräte und
Schaltelemente - Elektrisches Not-Halt-Gerät mit
mechanischer Verrastfunktion
(IEC 60947-5-5:1997/A2:2016)

This amendment A2 modifies the European Standard EN 60947-5-5:1997; it was approved by CENELEC on 2016-04-04. 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.

<https://standards.iteh.ai/catalog/standards/sist/5af1bc01-18cb-4586-91c7-125906e31264/iec-60947-5-5:1997-a2:2016>

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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 60947-5-5:1997/A2:2017**European foreword**

The text of document 121A/60/FDIS, future IEC 60947-5-5:1997/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 60947-5-5:1997/A2:2017.

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) 2017-08-24
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2020-02-24

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 Directives.

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

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Endorsement notice

The text of the International Standard IEC 60947-5-5:1997/A2:2016 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 60068-2-75	NOTE	Harmonized as EN 60068-2-75.
IEC 60073:2002	NOTE	Harmonized as EN 60073:2002 (not modified).
IEC 60204-1:2005	NOTE	Harmonized as EN 60204-1:2006 (modified).
IEC 60204-1:2005/A1:2008	NOTE	Harmonized as EN 60204-1:2006/A1:2009 (not modified).

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

Annex ZA of EN 60947-5-5:1997 applies, except as follows:

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
Delete, from the existing list, the references to IEC 60073:1996, modified by A1, to ISO 3864 and to IEC 60204-1:				

Replace the existing reference to IEC 60068-2-1, modified by A1 by the following new reference:

IEC 60068-2-1	2007	Environmental testing - Part 2-1: Tests - Test A: Cold	EN 60068-2-1	2007
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Replace the existing references to IEC 60068-2-2, modified by A1, IEC 60068-2-6, IEC 60068-2-27, IEC 60068-2-30, IEC 60947-1, modified by A1, IEC 60947-5-1, IEC 61310-1 and ISO 13850 by the following new references:

IEC 60068-2-2	2007	Environmental testing - Part 2-2: Tests - Test B: Dry heat	EN 60068-2-2	2007
IEC 60068-2-6	2007	Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	2008
IEC 60068-2-27	2008	Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock	EN 60068-2-27	2009
IEC 60068-2-30	2005	Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)	EN 60068-2-30	2005
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 60947-5-1	2016	Low-voltage switchgear and controlgear - Part 5-1: Control circuit devices and switching elements - Electromechanical control circuit devices	EN 60947-5-1	201X ¹⁾

¹⁾ To be published.

EN 60947-5-5:1997/A2:2017

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61310-1	2007	Safety of machinery - Indication, marking and actuation - Part 1: Requirements for visual, acoustic and tactile signals	EN 61310-1	2008
ISO 13850	2015	Safety of machinery - Emergency stop function - Principles for design	EN ISO 13850	2015

Add the following new reference:

IEC 60417-DB	2002	Graphical symbols for use on equipment	-	-
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[SIST EN 60947-5-5:1999/A2:2017](https://standards.iteh.ai/catalog/standards/sist/5afd1bc01-18cb-4586-91c7-2b3a9eb6ed3d/sist-en-60947-5-5-1999-a2-2017)

<https://standards.iteh.ai/catalog/standards/sist/5afd1bc01-18cb-4586-91c7-2b3a9eb6ed3d/sist-en-60947-5-5-1999-a2-2017>

Annex ZZ (informative)

Relationship between this European standard and the safety objectives of Directive 2014/35/EU [2014 OJ L96] aimed to be covered

This European standard has been prepared under a Commission's standardisation request relating to harmonised standards in the field of the Low Voltage Directive, M/511, to provide one voluntary means of conforming to safety objectives of Directive 2014/35/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits [2014 OJ L96].

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZZ.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding safety objectives of that Directive, and associated EFTA regulations.

**Table ZZ.1 – Correspondence between this European standard and Annex I of
Directive 2014/35/EU [2014 OJ L96]**

Safety objectives of Directive 2014/35/EU	Clause(s) / sub-clause(s) of this EN	Remarks/note ¹
1 a)	Foreword, 4	
1 b)	Foreword, 4	
1 c)	-	Not relevant.
2 a)	Foreword, 5.2, 5.3, 5.4, 7.7	
2 b)	Foreword, 5.2, 5.4, 7.4	
2 c)	Foreword, 4.2, 5.4, 6.4, 7.2, 7.3, 7.5, 7.6, 7.7, Annex A	
2 d)	Foreword, 5.2, 5.4, 6.4, 7.4, 7.7	
3 a)	Foreword, 5.2, 5.4, 6.4, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7	
3 b)	-	No hazard identified for products falling under the scope of this standard.
3 c)	Foreword, 6.4, 7.4, 7.7	
¹ Only special requirements for emergency stop pushbuttons with latching function are covered by this standard. All other relevant requirements are given in EN 60947-1 and EN 60947-5-1 as described in the foreword.		

WARNING 1: Presumption of conformity stays valid only as long as a reference to this European standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2: Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

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[SIST EN 60947-5-5:1999/A2:2017](https://standards.iteh.ai/catalog/standards/sist/5afdbc01-18cb-4586-91c7-2b3a9eb6ed3d/sist-en-60947-5-5-1999-a2-2017)

<https://standards.iteh.ai/catalog/standards/sist/5afdbc01-18cb-4586-91c7-2b3a9eb6ed3d/sist-en-60947-5-5-1999-a2-2017>



IEC 60947-5-5

Edition 1.0 2016-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 2
AMENDEMENT 2

**Low-voltage switchgear and controlgear –
Part 5-5: Control circuit devices and switching elements – Electrical emergency
stop device with mechanical latching function**

**Appareillage à basse tension –
Partie 5-5: Appareils et éléments de commutation pour circuits de commande –
Appareil d'arrêt d'urgence électrique à accrochage mécanique**

INTERNATIONAL
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FOREWORD

This amendment has been prepared by subcommittee SC 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 of voting
121A/60/FDIS	121A/72/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 60947-5-5:1999/A2:2017](https://standards.iteh.ai/catalog/standards/sist/5afdbc01-18cb-4586-91c7-2b3a9eb6ed3d/sist-en-60947-5-5-1999-a2-2017)

1 Scope

<https://standards.iteh.ai/catalog/standards/sist/5afdbc01-18cb-4586-91c7-2b3a9eb6ed3d/sist-en-60947-5-5-1999-a2-2017>

Delete, in the existing 4th paragraph “(see annex A)”.

Add, after the existing 4th paragraph, the following new paragraph and note:

This standard does not deal with any specific requirements on noise as the noise emission of electrical emergency stop devices with mechanical latching function is not considered to be a relevant hazard.

NOTE See also 9.2.5.4 of IEC 60204-1:2005.

2 Normative references

Delete, from the existing list, the references to IEC 60073:1996, modified by Amendment 1, to ISO 3864 and IEC 60204-1.

Replace the existing reference to IEC 60068-2-1, modified by Amendment 1, by the following new reference:

IEC 60068-2-1:2007, *Environmental testing – Part 2-1: Tests – Test A: Cold*

Replace the existing references to IEC 60068-2-2 modified by Amendment 1, IEC 60068-2-6, IEC 60068-2-27, IEC 60068-2-30, IEC 60947-1 modified by Amendment 1, IEC 60947-5-1, IEC 61310-1, and ISO 13850 by the following new references:

IEC 60068-2-2:2007, *Environmental testing – Part 2-2: Tests – Test B: Dry heat*

IEC 60947-5-5:1997/AMD2:2016 – 3 –
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IEC 60068-2-6:2007, *Environmental testing – Part 2-6: Tests – Test Fc: Vibration (sinusoidal)*

IEC 60068-2-27:2008, *Environmental testing – Part 2-27: Tests – Test Ea and guidance: Shock*

IEC 60068-2-30:2005, *Environmental testing – Part 2-30: Tests – Test Db: Damp heat, cyclic (12 h + 12 h cycle)*

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 60947-5-1:2016, *Low-voltage switchgear and controlgear – Part 5-1: Control circuit devices and switching elements – Electromechanical control circuit devices*

IEC 61310-1:2007, *Safety of machinery – Indication, marking and actuation – Part 1: Requirements for visual, acoustic and tactile signals*

ISO 13850:2015, *Safety of machinery – Emergency stop function – Principles for design*

Add the following new reference to the existing list:

IEC 60417-DB:2002¹, *Graphical symbols for use on equipment*

3 Definitions

(standards.iteh.ai)

Replace the existing item under “D” modified by Amendment 1 by the following new item:

<https://standards.iteh.ai/catalog/standards/sist/5af1bc01-18cb-4586-91c7-2b3a9eb6ed3d/sist-en-60947-5-5-1999-a2-2017>

Direct opening action (of a contact element)3.9

Add the following new item under new “P”:

P

Positive opening action (of a contact element)3.9

3.1 emergency stop (function or signal)

Replace the existing source by the following new source:

[ISO 13850:2015, definition 3.1, modified – extended to “emergency stop signal”, no use of E-stop]

3.2 emergency stop device

Replace the existing definition and source by the following new definition, without modifying the existing note:

manually operated control circuit device used to initiate an emergency stop function

¹ “DB” refers to the IEC on-line database, available at: <http://www.graphical-symbols.info/equipment>.