



**SLOVENSKI STANDARD
SIST EN IEC 61439-1:2021**

01-julij-2021

**Nadomešča:
SIST EN 61439-1:2012**

Sestavi nizkonapetostnih stikalnih in krmilnih naprav - 1. del: Splošna pravila (IEC 61439-1:2020)

Low-voltage switchgear and controlgear assemblies - Part 1: General rules (IEC 61439-1:2020)

Niederspannungs-Schaltgerätekombinationen Teil 1: Allgemeine Festlegungen (IEC 61439-1:2020)

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Ensembles d'appareillage à basse tension - Partie 1: Règles générales (IEC 61439-1:2020)

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Ta slovenski standard je istoveten z: EN IEC 61439-1:2021

ICS:

29.130.20	Nizkonapetostne stikalne in krmilne naprave	Low voltage switchgear and controlgear
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EUROPEAN STANDARD

EN IEC 61439-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2021

ICS 29.130.20

Supersedes EN 61439-1:2011 and all of its amendments
and corrigenda (if any)

English Version

Low-voltage switchgear and controlgear assemblies - Part 1: General rules (IEC 61439-1:2020)

Ensembles d'appareillage à basse tension - Partie 1:
Règles générales
(IEC 61439-1:2020)

Niederspannungs-Schaltgerätekombinationen - Teil 1:
Allgemeine Festlegungen
(IEC 61439-1:2020)

This European Standard was approved by CENELEC on 2020-06-24. 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.

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

[SIST EN IEC 61439-1:2021](https://standards.cenelec.eu/)

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 61439-1:2021 (E)**European foreword**

The text of document 121B/99/FDIS, future edition 3 of IEC 61439-1, prepared by SC 121B "Low-voltage switchgear and controlgear assemblies" 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 IEC 61439-1:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2021-11-21 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2024-05-21 document have to be withdrawn

This document supersedes EN 61439-1:2011 and all of its amendments and corrigenda (if any).

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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.

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The text of the International Standard IEC 61439-1:2020 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 60038:2009	NOTE	Harmonized as EN 60038:2011
IEC 60092 (series)	NOTE	Harmonized as EN 60092 (series)
IEC 60112:2003	NOTE	Harmonized as EN 60112:2003 (not modified)
IEC 60112:2003/A1:2009	NOTE	Harmonized as EN 60112:2003/A1:2009 (not modified)
IEC 60204 (series)	NOTE	Harmonized as EN 60204 (series)
IEC 60204-1:2016	NOTE	Harmonized as EN 60204-1:2018
IEC 60216 (series)	NOTE	Harmonized as EN 60216 (series)
IEC 60228:2004	NOTE	Harmonized as EN 60228:2005 (not modified)
IEC 60269-2	NOTE	Harmonized as HD 60269-2
IEC 60364-4-44:2007	NOTE	Harmonized as HD 60364-4-442:2012
IEC 60364-4-44:2007/A1:2015	NOTE	Harmonized as HD 60364-4-443:2016
IEC 60364-5-54:2011	NOTE	Harmonized as HD 60364-5-54:2011 (not modified)

IEC 60364-5-55:2011	NOTE	Harmonized as HD 60364-5-559:2012
IEC 60664-1:2007	NOTE	Harmonized as EN 60664-1:2007 (not modified)
IEC 60695-11-5:2016	NOTE	Harmonized as EN 60695-11-5:2017 (not modified)
IEC 60721-3-3:2019	NOTE	Harmonized as EN IEC 60721-3-3:2019 (not modified)
IEC 60947 (series)	NOTE	Harmonized as EN IEC 60947 (series)
IEC 60947-1:2020	NOTE	Harmonized as EN IEC 60947-1:2021 (not modified)
IEC 60947-2	NOTE	Harmonized as EN 60947-2
IEC 60947-7-2:2009	NOTE	Harmonized as EN 60947-7-2:2009 (not modified)
IEC 61000-2-2:2002	NOTE	Harmonized as EN 61000-2-2:2002 (not modified)
IEC 61000-2-2:2002/A1:2017	NOTE	Harmonized as EN 61000-2-2:2002/A1:2017 (not modified)
IEC 61000-2-2:2002/A2:2018	NOTE	Harmonized as EN 61000-2-2:2002/A2:2019 (not modified)
IEC 61000-4-13:2002	NOTE	Harmonized as EN 61000-4-13:2002 (not modified)
IEC 61000-4-13:2002/A2:2015	NOTE	Harmonized as EN 61000-4-13:2002/A2:2016 (not modified)
IEC 61000-6-1:2016	NOTE	Harmonized as EN IEC 61000-6-1:2019 (not modified)
IEC 61000-6-2:2016	NOTE	Harmonized as EN IEC 61000-6-2:2019 (not modified)
IEC 61000-6-3:2006	NOTE	Harmonized as EN 61000-6-3:2007 (not modified)
IEC 61082 (series)	NOTE	Harmonized as EN 61082 (series)
IEC 61140:2016	NOTE	Harmonized as EN 61140:2016 (not modified)

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<https://standards.iteh.ai/catalog/standards/sist/6f4f031b-5ff4-403e-bc2b-0ea99586ce63/sist-en-iec-61439-1-2021>

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 Where 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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-2-2	2007	Environmental testing – Part 2-2: Tests – Test B: Dry heat	EN 60068-2-2	2007
IEC 60068-2-11	1981	Basic environmental testing procedures – Part 2-11: Tests – Test Ka: Salt mist	EN 60068-2-11	1999
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 60073	2002	Basic and safety principles for man-machine interface, marking and identification – Coding principles for indicators and actuators	EN 60073	2002
IEC 60085	2007	Electrical insulation – Thermal evaluation and designation	EN 60085	2008
IEC 60364	(all parts)	Low-voltage electrical installations	HD 364	(all parts)
IEC 60364-4-41	2005	Low-voltage electrical installations – Part 4-41: Protection for safety – Protection against electric shock	HD 364-4-41 (modified)	2017
+A1	2017		+A11 +A12	2017 2019
IEC 60364-4-44	2007	Low-voltage electrical installations – Part 4-44: Protection for safety – Protection against voltage disturbances and electromagnetic disturbances	HD 60364-4-442 (modified)	2012
+A1	2015		+HD 60364-4-444 (modified)	2010
+A2	2018		+HD 60364-4-443 (modified)	2016
IEC 60364-5-51	2005	Electrical installations of buildings – Part 5-51: Selection and erection of electrical equipment – Common rules	HD 60364-5-51 (modified)	2009
			+A11 +A12	2010 2017

EN IEC 61439-1:2021 (E)

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60364-5-52	2009	Low-voltage electrical installations – Part 5-52: Selection and erection of electrical equipment – Wiring systems	HD 60364-5-52 (modified) +A11	2011 2017
IEC 60364-5-53 +A1 +A2	2001 2002 2015	Electrical installations of buildings – Part 5-53: Selection and erection of electrical equipment – Isolation, switching and control	-	-
IEC 60439	(all parts)	Low-voltage switchgear and controlgear assemblies	EN 60439	(all parts)
IEC 60445	2017	Basic and safety principles for man-machine interface, marking and identification – Identification of equipment terminals, conductor terminations and conductors	EN 60445	2017
IEC 60447	2004	Basic and safety principles for man-machine interface, marking and identification – Actuating principles	EN 60447	2004
IEC 60529 +A1 +A2	1989 1999 2013	Degrees of protection provided by enclosures (IP Code)	EN 60529 +A1 +A2	1991 2000 2013
IEC 60664-1	2007	Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests	EN 60664-1	2007
IEC 60695-2-10	2013	Fire hazard testing – Part 2-10: Glowing/hot-wire based test methods – Glow-wire apparatus and common test procedure	EN 60695-2-10	2013
IEC 60695-2-11	2014	Fire hazard testing - Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end-products (GWEPT)	EN 60695-2-11	2014
IEC 60865-1	2011	Short-circuit currents – Calculation of effects – Part 1: Definitions and calculation methods	EN 60865-1	2012
IEC TR 60890	2014	A method of temperature-rise verification of low-voltage switchgear and controlgear assemblies by calculation	-	-
IEC 60947-1	2020	Low-voltage switchgear and controlgear - Part 1: General rules	EN IEC 60947-1	2021
IEC 60947-4-1	2018	Low-voltage switchgear and controlgear – Part 4-1: Contactors and motor-starters – Electromechanical contactors and motor-starters	EN 60947-4-1	2019
IEC 60947-7-2	2009	Low-voltage switchgear and controlgear – Part 7-2: Ancillary equipment - Protective conductor terminal blocks for copper conductors	EN 60947-7-2	2009

EN IEC 61439-1:2021 (E)

Publication	Year	Title	EN/HD	Year
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
+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
+A1	2017		+A1	2017
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
			+AC1	2015
IEC 61000-4-8	2009	Electromagnetic compatibility (EMC) – Part 4-8: Testing and measurement techniques – Power frequency magnetic field immunity test	EN 61000-4-8	2010
IEC 61000-4-11	2004	Electromagnetic compatibility (EMC) – Part 4-11: Testing and measurement techniques – Voltage dips, short interruptions and voltage variations immunity tests	EN 61000-4-11	2004
+A1	2017		+A1	2017
IEC 61000-6-2	2016	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards – Immunity standard for industrial environments	EN 61000-6-2	2019
IEC 61000-6-3	2006	Electromagnetic compatibility (EMC) – Part 6-3: Generic standards – Emission standard for residential, commercial and light-industrial environments	EN 61000-6-3	2007
+A1	2010		+A1	2011
IEC 61000-6-4	2018	Electromagnetic compatibility (EMC) – Part 6-4: Generic standards –Emission standard for industrial environments	EN 61000-6-4	2019
IEC 61082-1	2014	Preparation of documents used in electrotechnology – Part 1: Rules	EN 61082	2015
IEC 61180	2016	High-voltage test techniques for low-voltage equipment – Definitions, test and procedure requirements, test equipment	EN 61180	2016
IEC 61439	(all parts)	Low-voltage switchgear and controlgear assemblies	EN 61439	(all parts)

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61545	1996	Connecting devices - Devices for the connection of aluminium conductors in clamping units of any material and copper conductors in aluminium bodied clamping units	-	-
IEC 61921	2017	Power capacitors - Low-voltage power factor correction banks	EN 61921	— ¹
IEC 62208	2011	Empty enclosures for low-voltage switchgear and controlgear assemblies - General requirements	EN 62208	2011
IEC 81346-1	2009	Industrial systems, installations and equipment and industrial products – Structuring principles and reference designations – Part 1: Basic rules	EN 81346-1	2009
IEC 81346-2	2019	Industrial systems, installations and equipment and industrial products – Structuring principles and reference designations – Part 2: Classification of objects and codes for classes	EN IEC 81346-2	2019
CISPR 11	2015	Industrial, scientific and medical equipment – Radio-frequency disturbance characteristics – Limits and methods of measurement	EN 55011 (modified)	2016
+A1	2016		+A11	2020
+A2	2019			
CISPR 32	2015	Electromagnetic compatibility of multimedia equipment – Emission requirements	EN 55032 (modified)	2015
+A1	2019		+A11	2020
ISO 178	2010	Plastics – Determination of flexural properties	EN ISO 178	2010
+A1	2013		+A1	2013
ISO 179-1	2010	Plastics – Determination of Charpy impact properties -- Part 1: Non-instrumented impact test	EN ISO 179-1	2010
ISO 179-2	1997	Plastics – Determination of Charpy impact properties -- Part 2: Instrumented impact test	EN ISO 179-2	1999
+A1	2011		+A1	2012
ISO 2409	2013	Paints and varnishes – Cross-cut test	EN ISO 22409	2013
ISO 4628-3	2016	Paints and varnishes – Evaluation of degradation of coatings – Designation of quantity and size of defects, and of intensity of uniform changes in appearance – Part 3: Assessment of degree of rusting	EN ISO 4628-3	2016
ISO 4892-2	2013	Plastics – Methods of exposure to laboratory light sources – Part 2: Xenon-arc lamps	EN ISO 4892-2	2013

¹ Under preparation. Stage at time of preparation FprEN 61921:2017.

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 / Notes
(1)(a)	Clauses 6	
(1)(b)	Clauses 6	
(1)(c)	See safety objectives 2 a) to 2 d) and 3 a) to 3 c) in this table	
(2)(a)	Clauses 8.2, 8.3, 8.4, 8.5, 10.5, 10.6, 10.9, 11.4, 11.5	
(2)(b)	Clauses 7.1, 7.2, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 9.1, 9.2, 9.3, 10.2, 10.3, 10.4, 10.5, 10.6, 10.7, 10.9, 10.10, 10.11, 11.2, 11.3, 11.4, 11.5, 11.6, 11.9	
(2)(c)	Clauses 6.2, 7.2, 8.1, 8.2, 8.5, 9.2, 9.3, 9.4, 10.2, 10.3, 10.6, 10.10, 10.11, 11.2, 11.5, 11.8, annex J	
(2)(d)	Clauses 5, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 9.1, 9.2, 9.3, 10.2, 10.3, 10.4, 10.5, 10.6, 10.7, 10.9, 10.10, 10.11, 11.2, 11.3, 11.4, 11.5, 11.9, 11.10	
(3)(a)	Clauses 6.2, 7.2, 8.1, 8.2, 9.3, 10.2, 10.11, 11.8	
(3)(b)	Clause 7.1, 7.2, 8.1, 8.2, 8.3, 8.7, 9.1, 9.2, 9.3, 9.4, 10.2, 10.3, 10.4, 10.6, 10.9, 10.10, 10.11, 10.12, 11.2, 11.3, 11.9	

Safety objectives of Directive 2014/35/EU	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
(3)(c)	Clauses 5.3, 5.4, 8.1, 8.5, 8.6, 9.2, 9.3, 10.2, 10.5, 10.6, 10.7, 10.10, 10.11, 11.4, 11.5, 11.6, 11.8, 11.10, annex E, annex I annex P	

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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IEC 61439-1

Edition 3.0 2020-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Low-voltage switchgear and controlgear assemblies –
Part 1: General rules

(standards.iteh.ai)

Ensembles d'appareillage à basse tension –
Partie 1: Règles générales

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INTERNATIONALE

ICS 29.130.20

ISBN 978-2-8322-8154-3

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