



SLOVENSKI STANDARD
SIST EN IEC 62314:2025

01-januar-2025

Polprevodniški releji

Solid-state relays

Halbleiterrelais

Relais statiques

Ta slovenski standard je istoveten z: EN IEC 62314:2024

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English Version

**Solid-state relays - Safety requirements
(IEC 62314:2022)**

Relais statiques - Exigences de sécurité
(IEC 62314:2022)

Halbleiterrelais - Sicherheitsanforderungen
(IEC 62314:2022)

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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 62314:2024 (E)**European foreword**

The text of document 94/670/FDIS, future edition 2 of IEC 62314, prepared by TC 94 "Electrical relays" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62314:2024.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2025-11-30 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2027-11-30 document have to be withdrawn

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The text of the International Standard IEC 62314:2022 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 standard indicated:

IEC 60947 series	NOTE	Approved as EN IEC 60947 series
IEC 60947-4-3:2020	NOTE	Approved as EN IEC 60947-4-3:2020 (not modified)
IEC 61000-4 series	NOTE	Approved as EN 61000-4 series
IEC 61058 series	NOTE	Approved as EN IEC 61058 series
IEC 61058-1:2016	NOTE	Approved as EN IEC 61058-1:2018 (not modified)
IEC 61810-7:2006	NOTE	Approved as EN 61810-7:2006 (not modified)
ISO 12100:2010	NOTE	Approved as EN ISO 12100:2010 (not modified)
ISO 14971	NOTE	Approved as EN ISO 14971

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.cencenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60038 (mod)	2009	IEC standard voltages	EN 60038	2011
IEC 60050-444	2002	International Electrotechnical Vocabulary - Part 444: Elementary relays	-	-
IEC 60068-2-1	2007	Environmental testing - Part 2-1: Tests - Test A: Cold	EN 60068-2-1	2007
IEC 60068-2-2	2007	Environmental testing - Part 2-2: Tests - Test B: Dry heat	EN 60068-2-2	2007
IEC 60068-2-14	2009	Environmental testing - Part 2-14: Tests - Test N: Change of temperature	EN 60068-2-14	2009
IEC 60068-2-20	2021	Environmental testing - Part 2-20: Tests - Test Ta and Tb: Test methods for solderability and resistance to soldering heat of devices with leads	EN IEC 60068-2-20	2021
IEC 60068-2-78	2012	Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state	EN 60068-2-78	2013
IEC 60112	2020	Method for the determination of the proof and the comparative tracking indices of solid insulating materials	EN IEC 60112	2020
IEC 60664-1	2020	Insulation coordination for equipment within low-voltage supply systems - Part 1: Principles, requirements and tests	EN IEC 60664-1	2020
IEC 60664-3	2016	Insulation coordination for equipment within low-voltage systems - Part 3: Use of coating, potting or moulding for protection against pollution	EN 60664-3	2017
IEC 60669-1 (mod)	2017	Switches for household and similar fixed-electrical installations - Part 1: General requirements	EN 60669-1	2018
-	-		+AC	2018-11

EN IEC 62314:2024 (E)

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60695-2-11	2021	Fire hazard testing - Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end products (GWEPT)	EN IEC 60695-2-11	2021
IEC 60695-2-12	2021	Fire hazard testing - Part 2-12: Glowing/hot-wire based test methods - Glow-wire flammability index (GWFI) test method for materials	EN IEC 60695-2-12	2021
IEC 60695-10-2	2014	Fire hazard testing - Part 10-2: Abnormal heat - Ball pressure test method	EN 60695-10-2	2014
IEC 60747-5-5	2020	Semiconductor devices - Part 5-5: Optoelectronic devices - Photocouplers	EN IEC 60747-5-5	2020
IEC 60999-1	1999	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units - Part 1: General requirements and particular requirements for clamping units for conductors from 0,2 mm ² up to 35 mm ² (included)	EN 60999-1	2000
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	2020	Electromagnetic compatibility (EMC) - Part 4-3 : Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	EN IEC 61000-4-3	2020
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
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	2020	Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current up to 16 A per phase	EN IEC 61000-4-11	2020

EN IEC 62314:2024 (E)

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61000-4-34	2005	Electromagnetic compatibility (EMC) - Part 4-34: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current more than 16 A per phase	EN 61000-4-34	2007
+ A1	2009		+ A1	2009
IEC 61180	2016	High-voltage test techniques for low-voltage equipment - Definitions, test and procedure requirements, test equipment	EN 61180	2016
IEC 61210 (mod)	2010	Connecting devices - Flat quick-connect terminations for electrical copper conductors - Safety requirements	EN 61210	2010
IEC 61760-1	2020	Surface mounting technology - Part 1: Standard method for the specification of surface mounting components (SMDs)	EN IEC 61760-1	2020
IEC 61810-1	2015	Electromechanical elementary relays - Part 1: General and safety requirements	EN 61810-1	2015
+ A1	2019		+ A1	2020
IEC 61984	2008	Connectors - Safety requirements and tests	EN 61984	2009
IEC 62368-1	2018	Audio/video, information and communication technology equipment - Part 1: Safety requirements	EN IEC 62368-1	2020
IEC/TS 62993	2017	Guidance for determination of clearances, creepage distances and requirements for solid insulation for equipment with a rated voltage above 1 000 V AC and 1 500 V DC, and up to 2 000 V AC and 3 000 V DC	-	-
CISPR 11 (mod)	2015	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement	EN 55011	2016
+ A1	2016		+ A1	2017
-	-		+ A11	2020
+ A2	2019		+ A2	2021
CISPR 32	2015	Electromagnetic compatibility of multimedia equipment - Emission requirements	EN 55032	2015



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Solid-state relays – Safety requirements

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CONTENTS

FOREWORD.....	5
1 Scope.....	7
2 Normative references	8
3 Terms and definitions	10
3.1 Terms and definitions related to relays.....	10
3.2 Terms and definitions related to insulation coordination (see Clause 11)	14
4 Characteristics of solid-state relays	16
5 Rated values	17
5.1 Rated and limiting values for output circuits and for insulation coordination	17
5.2 Load category	17
5.3 Rated and limiting values for control circuits	18
5.4 Overload current profile	19
5.5 Normal service, transport and storage conditions	19
5.5.1 Ambient temperature	19
5.5.2 Atmospheric conditions.....	19
5.6 Normal mounting conditions	19
6 Provisions for test.....	19
6.1 Type test.....	19
6.2 Routine test	20
7 Documentation and marking	21
7.1 Data.....	21
7.2 Instructions for installation, operation and maintenance	22
7.3 Marking.....	22
8 Temperature-rise	22
8.1 General.....	22
8.2 Test conditions	23
9 Basic operating function	23
9.1 OFF-state leakage current measurement	23
9.2 ON-state voltage drop measurement.....	23
10 Electrical endurance	23
10.1 Overload test	23
10.1.1 General	23
10.1.2 Overload capability test procedure.....	25
10.2 Endurance test.....	25
10.3 Verification.....	25
11 Clearances and creepage distances	27
11.1 General.....	27
11.2 Basis for insulation coordination	27
11.2.1 Basic principles	27
11.2.2 Rated impulse withstand voltage.....	27
11.2.3 Insulating materials	27
11.3 Requirements and dimensioning rules.....	28
11.3.1 Dimensioning of clearances.....	28
11.3.2 Dimensioning of creepage distances.....	29
11.3.3 Requirements for solid insulating materials.....	31
11.4 Tests and measurements	31

11.4.1	Tests	31
11.4.2	Measurement of creepage distances and clearances	31
11.4.3	Electrical tests for solid insulation	31
11.5	Alternative test methods	32
12	Terminations	32
12.1	Quick-connect terminations	32
12.1.1	Purpose	32
12.1.2	Recommended values	33
12.1.3	Requirements	33
12.2	Screw-type and screwless-type clamping-units	34
12.3	Solder terminals – Resistance to soldering heat	34
12.3.1	General	34
12.3.2	Solder pins	34
12.3.3	Terminals for surface mounting (SMD)	35
12.3.4	Other solder terminations (e.g. soldering lugs)	35
12.4	Sockets	35
13	Heat and fire resistance	35
13.1	Materials	35
13.2	Glow-wire test	36
13.3	Ball pressure test	36
14	Electromagnetic compatibility (EMC)	37
14.1	General	37
14.2	Immunity	37
14.3	Emission	37
Annex A	(normative) Test for solid-state relays intended for self ballasted lamp loads	38
Annex B	(informative) Risk assessment	41
B.1	General	41
B.2	Risk assessment procedure	41
B.3	Achieving tolerable risk	42
B.4	An application of risk assessment procedures (proposal for the user)	44
Annex C	(normative) Pollution degree	46
Annex D	(normative) Rated impulse withstand voltages	47
Annex E	(normative) Tests for EMC	48
E.1	General	48
E.2	EMC immunity	48
E.2.1	General	48
E.2.2	Electrostatic discharges	49
E.2.3	Radiated radio-frequency electromagnetic fields	49
E.2.4	Electrical fast transients/bursts	49
E.2.5	Surges	49
E.2.6	Conducted disturbances induced by radio-frequency fields	49
E.2.7	Immunity to power-frequency magnetic fields	49
E.2.8	Voltage dips and voltage interruptions	49
E.2.9	Summary of immunity test conditions	49
E.3	EMC radiated and conducted emission	52
E.3.1	General	52
E.3.2	Conducted radio-frequency emission tests	52
E.3.3	Radiated radio-frequency emission tests	52

Bibliography.....	53
Figure A.1 – Circuit diagram for testing solid-state relay	38
Figure B.1 – Iterative process of risk assessment and risk reduction.....	41
Figure B.2 – Risk reduction.....	43
Table 1 – Load categories.....	18
Table 2 – Type testing	20
Table 3 – Routine tests	21
Table 4 – Required data	21
Table 5 – Minimum requirements for overload capability test conditions.....	24
Table 6 – Endurance test.....	26
Table 7 – Minimum clearance	29
Table 8 – Minimum creepage distances for solid-state relays.....	30
Table 9 – Preconditioning	32
Table 10 – Cross-sectional areas for conductors depending on the resistive current carried by the terminal	34
Table 11 – Test conditions for test Tb	35
Table A.1 – Values for I_{peak} and I^2t depending on the type of distribution system	39
Table A.2 – Calculated circuit parameters.....	39
Table A.3 – Number of operations for endurance test	40
Table B.1 – Examples for the relation between failure mode, effects and hazard	44
Table B.2 – Severity of harm.....	44
Table B.3 – Probability of harm.....	45
Table B.4 – Risk category.....	45
Table D.1 – Rated impulse withstand voltages (waveform: 1,2/50 μ s) for solid-state relays connected directly to the mains	47
Table E.1 – Selection criteria for environmental conditions	48
Table E.2 – Specific performance criteria when electro-magnetic disturbances are present	49
Table E.3 – Immunity tests for industrial environments	50
Table E.4 – Immunity tests for residential, commercial and light-industrial environments	51
Table E.5 – Terminal disturbance voltage limits for conducted radio-frequency emission (for control supply input)	52
Table E.6 – Radiated emission test limits.....	52

INTERNATIONAL ELECTROTECHNICAL COMMISSION

SOLID-STATE RELAYS – SAFETY REQUIREMENTS

FOREWORD

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IEC 62314 has been prepared by IEC technical committee 94: All-or-nothing electrical relays. It is an International Standard.

This second edition cancels and replaces the first edition published in 2006. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) addition of load categories for DC load;
- b) addition of load category for self-ballasted lamp load;
- c) addition of "sockets" terminal;
- d) update of references;
- e) introduction of the requirement of EMC;
- f) restructuring of the whole document.

The text of this International Standard is based on the following documents:

Draft	Report on voting
94/670/FDIS	94/701/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

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