



**SLOVENSKI STANDARD**  
**SIST EN IEC 60947-8:2023**

**01-junij-2023**

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**Nizkonapetostne stikalne in krmilne naprave - 8. del: Krmilne enote za vgrajeno toplotno zaščito (PTC) rotacijskih električnih strojev (IEC 60947-8:2021)**

Low-voltage switchgear and controlgear - Part 8: Control units for built-in thermal protection (PTC) for rotating electrical machines (IEC 60947-8:2021)

Niederspannungsschaltgeräte - Teil 8: Auslösegeräte für den eingebauten thermischen Schutz (PTC) von rotierenden elektrischen Maschinen (IEC 60947-8:2021)

Appareillage à basse tension - Partie 8: Unités de commande pour la protection thermique incorporée (CTP) aux machines électriques tournantes (IEC 60947-8:2021)

**Ta slovenski standard je istoveten z: EN IEC 60947-8:2023**

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**ICS:**

29.130.20	Nizkonapetostne stikalne in krmilne naprave	Low voltage switchgear and controlgear
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**SIST EN IEC 60947-8:2023**

**en**



EUROPEAN STANDARD

**EN IEC 60947-8**

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2023

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Supersedes EN 60947-8:2003; EN 60947-8:2003/A1:2006; EN 60947-8:2003/A2:2012

English Version

Low-voltage switchgear and controlgear - Part 8: Control units  
for built-in thermal protection (PTC) for rotating electrical  
machines  
(IEC 60947-8:2021)

Appareillage à basse tension - Partie 8: Unités de  
commande pour la protection thermique incorporée (CTP)  
aux machines électriques tournantes  
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Niederspannungsschaltgeräte - Teil 8: Auslösegeräte für  
den eingebauten thermischen Schutz (PTC) von  
rotierenden elektrischen Maschinen  
(IEC 60947-8:2021)

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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 60947-8:2023 (E)****European foreword**

The text of document 121A/424/FDIS, future edition 2 of IEC 60947-8, 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 IEC 60947-8:2023.

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) 2023-10-11
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2026-01-11

This document supersedes EN 60947-8:2003 and all of its amendments and corrigenda (if any).

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

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

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

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

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**Endorsement notice**

The text of the International Standard IEC 60947-8:2021 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 60034-11:2020	NOTE Approved as EN IEC 60034-11:20201 (not modified)
IEC 60990:2016	NOTE Approved as EN 60990:2016 (not modified)
IEC 62477-1:2012	NOTE Approved as EN 62477-1:2012 (not modified) + A11:2014
IEC 62477-1:2012/A1:2016	NOTE Approved as EN 62477-1:2012/A1:2017 (not modified)
IEC/TR 63201	NOTE Approved as CLC IEC/TR 63201

## 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](http://www.cencenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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
IEC 60068-2-6	2007	Environmental testing – Part 2-14: Tests – Test Fc: Vibration (sinusoidal)	EN 60068-2-6	2008
IEC 60068-2-27	2008	Environmental testing – Part 2: Tests – Test Ea and guidance: Shock	EN 60068-2-27	2009
IEC 60417	-	Graphical symbols for use on equipment	-	-
IEC 60445	-	Basic and safety principles for man-machine interface, marking and identification - Identification of equipment terminals, conductor terminations and conductors	EN 60445	2017
IEC 60730-1 (mod)	-	Automatic electrical controls - Part 1: General requirements	EN 60730-1	2016
			+ A1	2019
IEC 60738-1	2006	Thermistors – Directly heated positive step-function temperature coefficient – Part 1: Generic specification	EN 60738-1	2006
+ A1	2009		+ A1	2009
IEC 60738-1-4	2008	Thermistors - Directly heated positive step-function temperature coefficient - Part 1-4: Blank detail specification - Sensing application - Assessment level EZ	EN 60738-1-4	2008
IEC 60947-1	2020	Low-voltage switchgear and controlgear - Part 1: General rules	EN IEC 60947-1	2021

**EN IEC 60947-8:2023 (E)**

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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	2017
			+ AC	2020-05
IEC 61140	2016	Protection against electric shock – Common aspects for installation and equipment	EN 61140	2016
ISO 2859-1	1999	Sampling procedures for inspection by attributes - Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection	-	-
+ A1	2011		-	-

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<https://standards.iteh.ai/catalog/standards/sist/e0a35a23-3d94-4c44-a436-464b92917e18/sist-en-iec-60947-8-2023>

## 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 ZZB.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 ZZB.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 a)	5, 6, 8, Annex A	
1 b)	5, 6, 7, 8, 9, Annex A, Annex B	
1 c)	5, 6, 7, 8, 9, Annex A	
2 a)	5, 6, 8, 9, Annex B	
2 b)	5, 6, 8, 9, Annex A	
2 c)	5, 6, 7, 8, Annex A	
2 d)	5, 6, 7, 8, 9, Annex B	
3 a)	5, 6, 7, 8, 9	
3 b)	5, 6, 7, 8, 9, Annex A	
3 c)	5, 6, 8, 9	

**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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Edition 2.0 2021-07

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



**Low-voltage switchgear and controlgear –  
Part 8: Control units for built-in thermal protection (PTC) for rotating electrical  
machines**

**Appareillage à basse tension –  
Partie 8: Unités de commande pour la protection thermique incorporée (CTP)  
aux machines électriques tournantes**

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## CONTENTS

FOREWORD.....	5
INTRODUCTION.....	7
1 Scope.....	8
2 Normative references .....	8
3 Terms and definitions, symbols and abbreviated terms .....	9
3.1 Terms and definitions.....	9
3.2 Symbols and abbreviated terms .....	11
4 Void.....	11
5 Characteristics of control units for built-in thermal protection (PTC).....	11
5.1 Summary of characteristics .....	11
5.2 Type of equipment .....	11
5.2.1 Operating temperatures of protection systems .....	11
5.2.2 Rated PTC thermistor operating temperature .....	11
5.2.3 Rated system operating temperature .....	12
5.2.4 Maximum permissible rated operating temperature for the system .....	12
5.2.5 Control unit with reset temperature .....	12
5.2.6 Control unit with sensor short-circuit detection.....	12
5.2.7 Control unit with sensor wire break detection.....	12
5.3 Rated electrical values of the switching device of the control unit .....	13
5.3.1 Rated electrical values of switching devices .....	13
5.3.2 Rated voltages of a control unit .....	13
5.3.3 Rated currents of a control unit.....	13
5.3.4 Rated making and breaking capacities of a control unit.....	13
5.4 Rated electrical values of characteristic variation related to PTC thermistors .....	13
5.4.1 General .....	13
5.4.2 Electrical data/ratings and characteristics related to the PTC thermistor .....	13
5.4.3 Rated voltage of the PTC thermistor circuit of the control unit.....	14
5.5 Control supply circuit .....	14
5.6 Auxiliary circuits.....	14
6 Product information .....	14
6.1 Nature of information .....	14
6.2 Marking.....	15
6.3 Instructions for installation, operation and maintenance, decommissioning and dismantling.....	15
6.4 Environmental information .....	15
7 Normal service, mounting and transport conditions.....	15
8 Constructional and performance requirements .....	16
8.1 Constructional requirements .....	16
8.1.1 General .....	16
8.1.2 Materials .....	17
8.1.3 Current-carrying parts and their connections .....	17
8.1.4 Clearances and creepage distances .....	17
8.1.5 Vacant.....	17
8.1.6 Vacant.....	17
8.1.7 Vacant.....	17
8.1.8 Terminals .....	17

8.1.9	Vacant .....	18
8.1.10	Provisions for protective earthing .....	18
8.1.11	Dedicated enclosures for equipment .....	18
8.1.12	Degrees of protection of enclosed equipment .....	18
8.1.13	Conduit pull-out, torque and bending with metallic conduits .....	18
8.1.14	Limited energy source .....	18
8.1.15	Stored charge energy circuit .....	20
8.1.16	Fault and abnormal conditions .....	20
8.1.17	Short-circuit and overload protection of ports .....	21
8.2	Performance requirements .....	21
8.2.1	Operating conditions .....	21
8.2.2	Abnormal conditions of service .....	22
8.2.3	Dielectric properties .....	22
8.2.4	Temperature rise .....	22
8.2.5	Conditional short-circuit current .....	22
8.2.6	Making and breaking capacities for control and auxiliary circuits .....	22
8.2.7	Additional requirements and tests for equipment with protective separation .....	22
8.2.8	Operating temperature variation .....	22
8.2.9	Damp heat .....	22
8.2.10	Shock and vibration .....	22
8.2.11	Requirements for short-circuit detection within the PTC thermistor circuit .....	23
8.2.12	Requirements for wire break detection within the PTC thermistor circuit .....	23
8.3	Electromagnetic compatibility (EMC) .....	23
8.3.1	General .....	23
8.3.2	Immunity .....	23
8.3.3	Emission .....	24
9	Tests .....	24
9.1	Kinds of tests .....	24
9.1.1	General .....	24
9.1.2	Type tests .....	24
9.1.3	Routine tests .....	24
9.1.4	Sampling tests .....	25
9.1.5	Special tests .....	25
9.2	Compliance with constructional requirements .....	25
9.2.1	General .....	25
9.2.2	Electrical performance of screwless-type clamping units .....	25
9.2.3	Ageing test for screwless-type clamping units .....	25
9.2.4	Limited energy source test .....	25
9.2.5	Breakdown of components .....	26
9.3	Compliance with performance requirements .....	27
9.3.1	Test sequences .....	27
9.3.2	General test conditions .....	28
9.3.3	Performance .....	28
9.3.4	Performance under conditional short-circuit current .....	32
9.4	EMC tests .....	32
9.4.1	General .....	32
9.4.2	Immunity .....	32

9.4.3	Emission.....	33
9.5	Routine and sampling tests.....	34
9.5.1	General.....	34
9.5.2	Operating tests on control units.....	34
9.5.3	Dielectric tests.....	34
9.5.4	Routine verification of switch on and switch off of Mark A control units.....	34
Annex A (normative)	PTC thermistors used in thermal protection systems.....	35
A.1	Characteristics of association of Mark A thermistors.....	35
A.2	Verification of interchangeability characteristics.....	35
A.2.1	Type tests on Mark A thermistors.....	35
A.2.2	Routine tests on Mark A thermistors.....	36
Annex B (normative)	Additional requirements and tests for equipment with protective separation.....	37
B.1	General.....	37
B.2	Definitions.....	37
B.3	Requirements.....	37
B.3.1	Test method for implementing protective impedance.....	37
B.3.2	Touch current measurement.....	38
Bibliography	.....	40
Figure 1	– Measurement of wire break detection.....	31
Figure A.1	– Characteristic curve of a typical Mark A thermistor.....	36
Figure B.1	– Protection by means of protective impedance.....	38
Figure B.2	– Measuring instrument.....	39
Table 1	– Limits for limited energy sources without an over-current protective device.....	19
Table 2	– Limits for limited energy sources with an over-current protective device.....	19
Table 3	– Limits for limited energy source with current limiting impedance.....	20
Table 4	– Terminal disturbance voltage limits for conducted radio-frequency emission (for control supply input).....	33
Table 5	– Radiated emission test limits.....	33

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR –****Part 8: Control units for built-in thermal protection (PTC)  
for rotating electrical machines**

## FOREWORD

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IEC 60947-8 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. It is an International Standard.

This second edition cancels and replaces the first edition published in 2003, Amendment 1:2006 and Amendment 2:2011. This edition constitutes a technical revision.

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

- a) safety aspects related to:
  - general aspects;
  - limited energy circuits;
  - electronic circuits;
- b) alignment to IEC 60947-1:2020;