SLOVENSKI STANDARD

SIST EN 60947-3:2000/A1:2002

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Nizkonapetostne stikalne in krmilne naprave – 3. del: Stikala, ločilniki, ločilna stikala in stikalni aparati z varovalkami – Dopolnilo 1

Low-voltage switchgear and controlgear - Part 3: Switches, disconectors, switch-disconectors and fuse-combination units - Amendment A1 (IEC 60947-3:1999/A1:2001)

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ICS 29.130.20

Referenčna številka
SIST EN 60947-3:2000/A1:2002(en)

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EUROPEAN STANDARD **EN 60947-3/A1**

NORME EUROPÉENNE

EUROPÄISCHE NORM April 2001

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 60947-3:1999/A1:2001)

Appareillage à basse tension
Partie 3: Interrupteurs, sectionneurs, interrupteurs-sectionneurs et combinés-fusibles
(CEI 60947-3:1999/A1:2001)

Niederspannungsschaltgeräte
Teil 3: Lastschalter, Trennschalter, Lasttrennschalter und Schalter-Sicherungs-Einheiten
(IEC 60947-3:1999/A1:2001)

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This amendment A1 modifies the European Standard EN 60947-3:1999; it was approved by CENELEC on 2001-03-01. 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.

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

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Ref. No. EN 60947-3:1999/A1:2001 E

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Foreword

The text of document 17B/1059A/FDIS, future amendment 1 to IEC 60947-3:1999, prepared by SC 17B, Low-voltage switchgear and controlgear, of IEC TC 17, Switchgear and controlgear, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 60947-3:1999 on 2001-03-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2001-12-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2004-03-01

Annexes designated "normative" are part of the body of the standard.
In this standard, annex ZA is normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of amendment 1:2001 to the International Standard IEC 60947-3:1999 was approved by CENELEC as an amendment to the European Standard without any modification.

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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

Publication	Year	Title	EN/HD	Year
Add:				
IEC 60410	1973	Sampling plans and procedures for inspection by attributes	-	-
IEC 60447	1993	Man-machine interface (MMI) - Actuating principles	EN 60447	1993
Replace IEC 60947-1:1996 by :				
IEC 60947-1 (mod)	1999	Low-voltage switchgear and controlgear Part 1: General rules	EN 60947-1	1999

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NORME INTERNATIONALE

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CEI
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60947-3

1999

AMENDEMENT 1
AMENDMENT 1
2001-03

Amendement 1

Appareillage à basse tension –

Partie 3:
Interrupteurs, sectionneurs, interrupteurs-sectionneurs et combinés-fusibles

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Amendment 1

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Low-voltage switchgear and controlgear –

Part 3:
Switches, disconnectors, switch-disconnectors and fuse-combination units

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FOREWORD

This amendment has been prepared by subcommittee 17B: Low-voltage switchgear and controlgear, of IEC technical committee 17: Switchgear and controlgear.

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

FDIS	Report on voting
17B/1059A/FDIS	17B/1120/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 the base publication and its amendments will remain unchanged until 2003. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

The contents of the corrigendum of August 2001 have been included in this copy.

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Page 3

CONTENTS

Delete "4.8 Vacant" *and* "4.9 Switching overvoltages".

Page 11

1.1 Scope and object

Delete note 2 and renumber notes 3 and 4 as 2 and 3.

Page 13

1.2 Normative references

Insert, in the list, the following reference:

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

IEC 60447:1993, *Man-machine-interface (MMI) – Actuating principles*

Replace "IEC 60947-1:1996" *by* "IEC 60947-1:1999".

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Page 21

4.1 Summary of characteristics

Delete the last dash.

Page 23

4.3.5.2 Rated making capacity

Add, after the second paragraph, the following new paragraph:

Not applicable to AC-20 or DC-20 equipment.

Delete the existing note.

4.3.5.3 Rated breaking capacity

Add, after the second paragraph, the following new paragraph:

Not applicable to AC-20 or DC-20 equipment.

Delete the existing note.

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4.3.6.2 Rated short-circuit making capacity (I_{cm})

Add, after the second paragraph, the following new paragraph:

Not applicable to AC-20 or DC-20 equipment.

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4.8 Vacant

Delete this subclause.

4.9 Switching overvoltages

Delete this subclause.

Page 29

5.2.1

Replace the existing text of item c) by the following:

Devices of utilization category AC-20A, AC-20B, DC-20A and DC-20B shall be marked "Do not operate under load", unless the device is interlocked to prevent such operation.

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Page 31

7.1 Constructional requirements

Delete the existing note.

Add the following new subclauses 7.1.1 and 7.1.1.1:

7.1.1 Materials

The suitability of materials used shall be verified with respect to resistance to abnormal heat and fire by conducting tests:

a) on the equipment; or

b) on sections taken from the equipment; or

c) on samples of identical material having a representative cross-section.

If an identical material having a representative cross-section has already satisfied the requirements, then those tests need not be repeated.

7.1.1.1 Resistance to abnormal heat and fire

Subclause 7.1.1.1 of IEC 60947-1 applies with the following additions.

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Parts of insulating material necessary to retain current-carrying parts in position shall conform to the glow-wire tests of 8.2.1.1.1 of IEC 60947-1 at a test temperature of 960 °C.

When tests are conducted on material manufacturers samples according to 7.1.1c), they shall be made according to the tests for flammability and hot wire corresponding to a glow-wire test of 960 °C as specified in 8.2.1.1.2 and annex M of IEC 60947-1.

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7.1.3 Clearances and creepage distances

Replace the existing text by the following:

Subclause 7.1.3 of IEC 60947-1 applies with the following addition:

Guidance on the measurement of clearances and creepage distances is given in annex G of IEC 60947-1.

Add the following new subclauses 7.1.4, 7.1.4.2 and 7.1.6:

7.1.4 Actuator

Subclause 7.1.4 of IEC 60947-1 applies with the following addition.

7.1.4.2 Direction of movement

The direction of operation for actuators of devices shall normally conform to IEC 60447. Where devices cannot conform to these requirements, for example due to special applications or alternative mounting positions, they shall be clearly marked so that there is no doubt as to the "I" and "O" positions and the direction of operation.

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7.1.6 Additional requirements for equipment suitable for isolation

Subclause 7.1.6 of IEC 60947-1 applies with the following additions.

7.1.6.1 Additional constructional requirements for equipment suitable for isolation of rated operational voltage greater than 50 V

Replace the existing title and text by the following:

7.1.6.1 Additional constructional requirements for equipment suitable for isolation

The equipment shall be marked according to 5.2.1b).

When no indication of the position of the contacts is provided, for example by the actuator or a separate indicator, all the main contacts shall be clearly visible in the open position.

The strength of the actuating mechanism and the reliability of the indication of the open position shall be checked according to 8.2.5. Moreover, when means are provided by the manufacturer to lock the equipment in the open position, locking shall only be possible when the main contacts are in the open position (see 8.2.5).

This requirement does not apply to equipment where the main contact position is visible in the open position and/or the open position is indicated by other means than the actuator.

NOTE Locking in the closed position is permitted for particular applications.

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The clearance across the open contacts of the same pole when in the open position shall not be less than the minimum clearance given in table 13 of IEC 60947-1 and shall also comply with the requirements of 7.2.3.1b) of IEC 60947-1.

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7.1.6.3 Supplementary requirements for equipment provided with means for padlocking the open position

Delete, on page 35, the existing note.

Page 35

Add the following new subclause 7.1.11:

7.1.11 Degrees of protection of enclosed equipment

Degrees of protection of enclosed equipment and relevant tests are given in annex C of IEC 60947-1.