

## **SLOVENSKI STANDARD** SIST HD 62640:2015

01-junij-2015

#### Naprave na preostali (diferenčni) tok z nadtokovno zaščito ali brez nje za vtičnice za gospodinjsko in podobno rabo

Residual current devices with or without overcurrent protection for socket-outlets for household and similar uses

Fehlerstrom-/Differenzstrom-Schutzeinrichtung mit oder ohne Überstromschutz für Steckdosen für Hausinstallationen und für ähnliche Anwendungen V

Dispositifs à courant différentiel résiduel avec ou sans protection contre les surintensités pour les socles de prises de courant destinés à des installations domestiques et analogues

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Ta slovenski standard je istoveten z: HD 62640:2015

ICS:

29.120.50 Varovalke in druga medtokovna zaščita

Fuses and other overcurrent protection devices

SIST HD 62640:2015

en,fr,de



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#### SIST HD 62640:2015

## HARMONIZATION DOCUMENT DOCUMENT D'HARMONISATION HARMONISIERUNGSDOKUMENT

## HD 62640

March 2015

ICS 29.120.50

**English Version** 

### Residual current devices with or without overcurrent protection for socket-outlets for household and similar uses (IEC 62640:2011, modified)

Dispositifs à courant différentiel résiduel avec ou sans protection contre les surintensités pour les socles de prises de courant destinés à des installations domestiques et analogues (IEC 62640:2011, modifiée) Fehlerstrom-/Differenzstrom-Schutzeinrichtung mit oder ohne Überstromschutz für Steckdosen für Hausinstallationen und für ähnliche Anwendungen (IEC 62640:2011, modifiziert)

This Harmonization Document was approved by CENELEC on 2015-01-05. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this Harmonization Document at national level.

Up-to-date lists and bibliographical references concerning such national implementations may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This Harmonization Document exists in three official versions (English, French, German).

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

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#### Foreword

This document (HD 62640:2015) consists of the text of IEC 62640:2011 prepared by SC 23E "Circuitbreakers and similar equipment for household use" of IEC/TC 23 "Electrical accessories", together with the common modifications prepared by CLC/TC 23E "Circuit breakers and similar devices for household and similar applications".

The following dates are fixed:

•	latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2016-01-05
•	latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2018-01-05

Clauses, subclauses, notes, footnotes, tables, figures and annexes which are additional to those in IEC 62640:2011 are prefixed "Z".

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 Directive(s).

For relationship with EU Directive(s), see informative Annex ZZ, which is an integral part of this document. <u>SIST HD 62640:2015</u>

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This standard covers the Principle<sup>al</sup>Elements<sup>2</sup>/off-the<sup>2</sup>Safety<sup>1</sup>Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

### Endorsement notice

The text of this draft Harmonization Document consists of the text of the International Standard IEC 62640:2011 with the following common modifications.

COMMON MODIFICATIONS

#### 1 Scope

**Replace** the first sentence of Clause 1 by:

"This Harmonization Document applies to residual current-operated devices (RCD) incorporated in, or specifically intended for use with two pole socket-outlets, with provision of earthing of the socket outlet for household and similar use (SRCD: socket-outlet residual current devices)."

At the end of the first paragraph, delete "or phase to earthed middle conductor".

**Replace** the second paragraph by:

"SRCDs are only intended to provide supplementary protection downstream of the SRCD. SRCDs are intended for use in circuits where the fault protection and additional protection are already assured upstream of the SRCD." I en STANDARD PREVIEW

Replace the text of Note 1 by "Void"standards.iteh.ai)

Replace the text of Note 2 by "Void". <u>SIST HD 62640:2015</u> https://standards.iteh.ai/catalog/standards/sist/13cda47c-699d-4839-8e8d-Replace the text of Note 3 by "Void".<u>3abe6cc38962/sist-hd-62640-2015</u>

In Note 4, **replace** "IEC 60884-1" by "the national requirements for socket outlets of the country where the product is placed on the market".

In the fifth paragraph (beginning by "They are not intended"), replace "IEC 60439-3" by "IEC 61439-3".

In the ninth paragraph, **delete** at the end "or 20 A for devices with a rated voltage not exceeding 130 V a.c".

**Replace** the text of Note 6 by "Void".

Replace the text of Note 7 by "Void".

In the last paragraph, delete" IEC 60884-1 or".

#### 2 Normative references

**Delete** the reference to IEC 60884-1:2002.

Add the following note:

NOTE Normative references to international publications with their corresponding European publications are listed in Annex ZA (normative).

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#### 3 Terms and definitions

In 3.3.14, replace the term and definition by "Void".

In 3.3.15, replace the term and definition by "Void"

#### 4 Classification

Replace the text of Note 2 by "Void".

Replace the text of Note 3 by "Void".

In 4.2.1, replace the content of b) by "Void".

In 4.2.2, replace the content of a) by "Void".

In 4.4, replace the title and the contents by "Void".

#### 5 Characteristics of SRCDs

In 5.3.1.1, delete the note.

In 5.4.1, replace the contents by: STANDARD PREVIEW

"The preferred value of rated voltage according to IEC 60038 is 230 V."

In 5.4.2, **delete** the first two lines and the two hotes: <u>2640:2015</u> https://standards.iteh.ai/catalog/standards/sist/13cda47c-699d-4839-8e8d-In 5.4.3, **delete** "0,006 A –" and the note: <u>6cc38962/sist-hd-62640-2015</u>

In 5.4.5, **replace** the title and contents by:

#### 5.4.5 Preferred value of rated frequency

The preferred value of rated frequency is 50 Hz.

In 5.4.8, delete the note.

In 5.4.9, delete the note.

In 5.4.10, delete the note.

In 5.4.11.1, **delete** the note.

In Table 2, delete the note.

#### 6 Marking and other product information

In Table 4, row D, second column, delete "or 60 Hz".

In Table 4, replace item P by "Void".

In Table 4, row Q, **delete** "For devices with feed-through means, the supply and feed-through means shall be clearly marked (e.g. "supply" and "feed through")".

In Table 4, delete Note 1 and Note 2.

In 6.3, **replace** the title and contents by "Void".

#### 8 Requirements for construction and operation

In the last but one paragraph of 8.3.1, delete ", if any,".

In the note of 8.3.2, **replace** "2.7.1.1 and 2.7.1.3" by "4.8.1".

In Table 6, delete columns 2 and 3.

In Table 6, item 2, **add** a reference to table footnote <sup>Z1</sup>.

In Table 6, replace the contents of item 3 in first column by "Void".

In Table 6, **replace** the contents of table footnote <sup>j</sup> by "Void".

In Table 6, **add** the following new table footnote:

<sup>Z1</sup> This applies also to clearance and creepage distances between live parts of different polarity of the SRCD and equipments mounted close to it.

In 8.3.3, replace the title and contents by "Void". ARD PREVIEW

In 8.3.5.2, replace the title and contents by Void".

In 8.4.1.3, at the end of the first paragraph **replace** path by "pole". https://standards.iteh.ai/catalog/standards/sist/13cda47c-699d-4839-8e8d-

In 8.5, replace the title and contents by Word 962/sist-hd-62640-2015

In 8.16.3.1, item iv), **replace** "Clause 23 of IEC 60884-1:2002" by "the national requirements for socket-outlets of the country where the product is placed on the market".

In 8.16.3.1, last paragraph, **replace** "Clauses 16 and 23 of IEC 60884-1:2002" by "the national requirements for socket outlets of the country where the product is placed on the market".

In Table 11, **delete** the table footnote <sup>a</sup> and the references to it.

#### 9 Tests

In 9.1.1, first paragraph, delete "(including the FE, if applicable, connected to PE via R<sub>e</sub>)".

In 9.1.1, fifth paragraph, **replace** "IEC 60884-1" by "the national requirements of the country where the product is placed on the market".

In 9.1.1, **delete** the sixth paragraph (the one beginning by "In countries where IEC 60884-1...").

In Table 12, first row, fourth column, **replace** "20" by "16". **Delete** the last two columns.

In 9.1.1, **delete** the two notes.

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In 9.1.1, add a paragraph after the last paragraph:

"An operating speed of 0,1 m/s  $\pm$  25 % shall be used during actuation for the tests of 9.17 and 9.15.2. The speed is measured at the extremity when and where the operating means of the test apparatus touches the actuating means of the SRCD under test. For rotary knobs, the angular velocity shall correspond substantially to the above conditions, referred to the speed of the operating means (at its extremities) of the SRCD under test."

In Table 13, fourth row, last column, delete ", 9.26".

In Table 13, sixth row, **replace** "Behaviour of SRCDs with feed through terminals in case of miswiring" by "Void".

In 9.3.2, first paragraph, **delete** ", S<sub>4</sub>".

In Table 16, **delete** the sixth and seven rows (the ones beginning respectively by "20 A" and "32 A"), and **delete** table footnote <sup>d</sup>.

In 9.7.1.3, **delete** the note.

In Table 17, delete Note 1 and Note 2.

In Table 18, **delete** the note.

In Table 19, delete the note h STANDARD PREVIEW

Replace the existing subclause 9.8.2 by the followings. iten.ai)

#### 9.8.2 Verification of behaviour in the case of supply voltage failure

With test switch  $S_2$  in the open position,  $S_1$  and the SRCD in the closed position:

Switch  $S_1$  is then opened.

Only SRCDs classified according to 4.1.2 a) and 4.1.2 b) shall open automatically.

Switch  $S_1$  is reclosed.

Only SRCDs classified according to 4.1.2 b) shall reclose automatically.

For SRCDs with manual opening means, the test is repeated with  $S_2$  and the SRCD set in the open position and  $S_1$  in the closed position:

Switch  $S_1$  is then opened and reclosed.

The SRCD shall not reclose automatically.

For the purposes of this test, the test button is not considered to be a manual opening means.

In 9.8.3.1, **delete** ", S<sub>4</sub>".

In 9.8.3.2 a), **delete** ", S<sub>4</sub>".

In 9.8.3.2 c), **delete** ", S<sub>4</sub>".

In 9.8.3.3, **delete** twice ", S<sub>4</sub>".

In 9.8.6, replace the title and contents (including subclauses) by "Void".

In 9.8.7.1, second paragraph, **delete** "and  $S_4$ ".

In 9.8.7.3, third paragraph, delete ",  $S_4$ ".

In 9.9, replace the title and contents by "Void".

In 9.11.3.1, first paragraph, delete "or flying leads".

In 9.11.3.2, replace the title and contents by "Void".

In 9.13.3, a), **replace** "connected to the FE, if any, and the PE terminal, if any"; by "connected to the PE terminal";.

In 9.15.2.1, b), fourth dash, replace "±5 %" by "0, - 5 %"

In 9.15.2.1, d), first paragraph and Note 2, replace"105 %" by "110 %".

In 9.15.2.1, i), **replace** the last paragraph by:

"Under the test conditions of 9.8.3.2 a), the SRCD shall trip at a test current of 1,25  $I_{\Delta n}$ . One test only is made on one pole taken at random, with measurement of break time. This time shall not exceed the value specified in Table 1 for  $I_{\Delta n}$ ."

In 9.15.2.2, third paragraph, delete "or flying leads".

In 9.15.2.2, **delete** the fourth paragraph.

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In 9.15.2.3, second paragraph, **delete** "or flying leads".

SIST HD 62640:2015 In 9.15.2.3, delete the third paragraphi/catalog/standards/sist/13cda47c-699d-4839-8e8d-

3abe6cc38962/sist-hd-62640-2015 In 9.15.2.3, a), third paragraph, **delete** the last sentence ("For SRCDs classified according 4.1.1 and

fitted with an FE, the FE is connected and the supply neutral is not connected.").

In 9.15.2.4, third paragraph, delete "or flying leads".

In 9.15.2.4, **delete** the fourth paragraph.

In 9.15.3, **replace** "Clause 20 of IEC 60884-1:2002" by "the national requirements of the country where the product is placed on the market".

In 9.16, first paragraph, replace 'item 2, 3 and 4' by 'items 2 and 4'.

In 9.17.1, first paragraph, **replace** "tests of Clause 21 of IEC 60884-1:2002," by "national requirements of the country where the product is placed on the market".

In 9.17.1, second paragraph, **replace** "IEC 60884-1" by "the national requirements of the country where the product is placed on the market".

In Table 33, **delete** the note.

In 9.17.2.1, b), **delete** the last sentence ("For SRCDs classified according to 4.1.1 and fitted with a FE, 250 of these operating cycles are carried out with the neutral disconnected.").

In 9.19.1.5, **replace** the paragraph by:

"Under the conditions of tests specified in 9.8.3.3, the SRCD shall trip with a test current of 1,25  $I_{\Delta n}$ One test only is made on one pole taken at random, with measurement of break time. This time shall not exceed the value specified in Table 1 for  $I_{\Delta n}$ ." -9-

#### In 9.19.2, replace the last paragraph by

"Under the conditions of tests specified in 9.8.3.3, the SRCD shall trip with a test current of 1,25  $I_{\Delta n}$ . One test only is made on one pole taken at random with measurement of break time. This time shall not exceed the value specified in Table 1 for  $I_{\Lambda n}$ ."

In 9.23.2, second paragraph, delete "or flying leads".

In 9.23.2, delete the third paragraph.

In 9.24, replace the third paragraph by:

"Under the conditions of tests specified in 9.8.3.3, the SRCD shall trip with a test current of 1,25  $I_{An}$ . One test only is made on one pole taken at random with measurement of break time. This time shall not exceed the value specified in Table 1 for  $I_{Ap}$ ."

In 9.25, a), replace "FE terminal and" by "The".

In 9.25, b), replace "The FE terminal and" by "The".

In 9.25, d), replace the last paragraph by

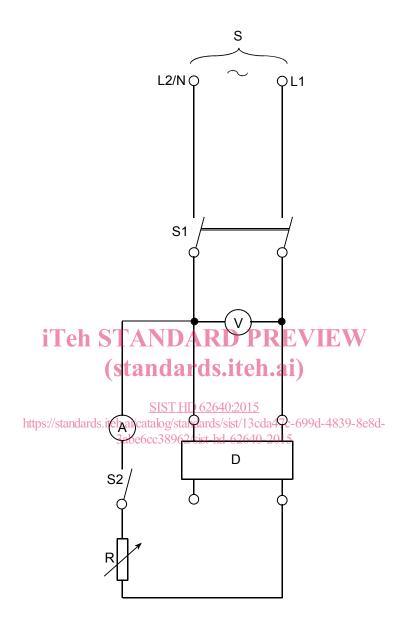
"Under the conditions of tests specified in 9.8.3.3, the SRCD shall trip with a test current of 1,25 J<sub>n</sub> One test only is made on one pole taken at random, with measurement of break time. This time shall not exceed the value specified in Table 1 for  $I_{\Delta n}$ .

# **Delete** 9.26 (including its subclauses).

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#### Figures

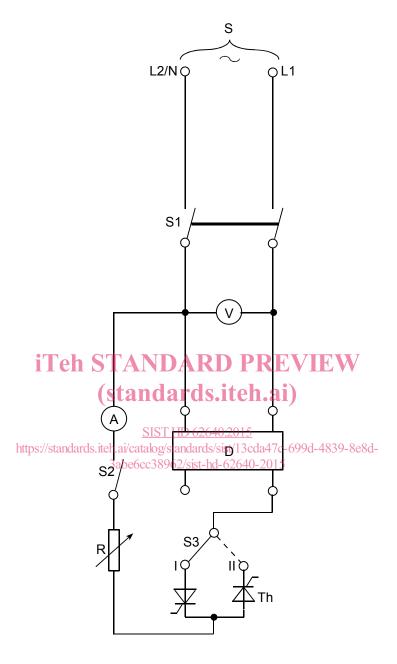
In Figure 2, **replace** the figure by:



In Figure 2, Key, **delete** « or  $S_4$  » and the last two lines (the ones beginning with " $R_e$ " and "FE").

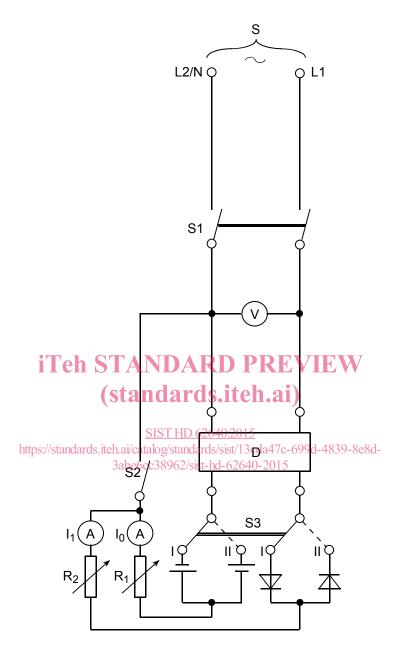
In Figure 13, delete the figure and replace the title by "Void".

In Figure 14, **replace** the figure by:



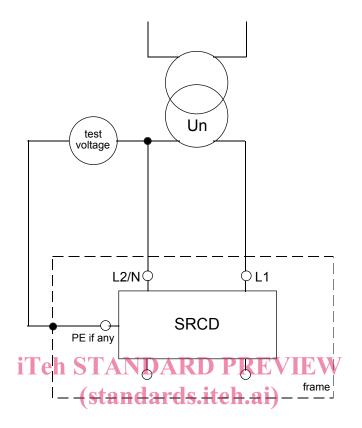
In Figure 14, Key, **delete** the three lines beginning with " $R_e$ ", " $S_4$ " and "FE".

In Figure 15, **replace** the figure by:



In the Key, delete the three lines beginning with "Re", "S4" and "FE".

In Figure 29, **replace** the figure by:



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In Table A.1, delete rows 9.11.3.2 and 9.26.

In Table A.1, **delete** row 9.9.

Annexes

In Table A.2, **delete** table footnote <sup>g</sup>.

After Annex E, add the following new annexes.