SLOVENSKI STANDARD
SIST EN IEC 60375:2018

01-oktober-2018

Nadomešča:
SIST EN 60375:2004

Konvencije o električnih tokokrogih (IEC 60375:2018)

Conventions concerning electric circuits (IEC 60375:2018)

Conventions concernant les circuits électriques (IEC 60375:2018)

Ta slovenski standard je istoveten z: EN IEC 60375:2018

ICS:

17.220.01	Elektrika. Magnetizem. Splošni vidiki	Electricity. Magnetism. General aspects

SIST EN IEC 60375:2018 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 60375

August 2018

ICS 01.060; 01.080.40

Supersedes EN 60375:2003

English Version

Conventions concerning electric circuits (IEC 60375:2018)

Conventions concernant les circuits électriques (IEC 60375:2018)

Vereinbarungen für Stromkreise (IEC 60375:2018)

This European Standard was approved by CENELEC on 2018-06-12. 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.

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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.

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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

European foreword

The text of document 25/620/FDIS, future edition 3 of IEC 60375, prepared by IEC/TC 25 "Quantities and units, and their letter symbols" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60375:2018.

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)	2019-03-12
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2021-06-12

This document supersedes EN 60375:2003.

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.

Endorsement notice

The text of the International Standard IEC 60375:2018 was approved by CENELEC as a European Standard without any modification.

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.

Publication	Year	Title	EN/HD	Year
IEC 60617-DB	-	Graphical symbols for diagrams	-	-

IEC 60375

Edition 3.0 2018-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Conventions concerning electric circuits

Conventions concernant les circuits électriques

INTERNATIONAL
ELECTROTECHNICAL
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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CONVENTIONS CONCERNING ELECTRIC CIRCUITS

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60375 has been prepared by IEC technical committee 25: Quantities and units, and their letter symbols.

This third edition cancels and replaces the second edition issued in 2003. This edition constitutes a technical revision.

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

a) the clause on conventions concerning magnetic circuits has been removed; accordingly the title of the document has been abbreviated to read "Conventions concerning electric circuits";
b) text and figures have been revised and homogenised;
c) Clause 3 has been structured into subclauses;
d) Clause 4 – Orientation of geometrical objects – has been inserted, and thus the clause numbering has been altered.

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

FDIS	Report on voting
25/620/FDIS	25/622/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

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

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

CONVENTIONS CONCERNING ELECTRIC CIRCUITS

1 Scope

This International Standard specifies the rules for signs and reference directions and reference polarities for electric currents and voltages in electric networks.

In Clauses 3 to 10, the time dependence is arbitrary. It is assumed that the wavelength of the highest frequency involved is larger than the largest distance between two points of the network; processes are considered to be quasi-static. Clause 11 specifies the rules and recommendations for complex notation.

2 Normative references

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.

IEC 60617, *Graphical symbols for diagrams* [1]

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1
orientation
<of a curve> property of a curve described by the position vector $\boldsymbol{r}(u)$ which is associated with increasing or decreasing values of the parameter u

[SOURCE: IEC 60050-102:2007, 102-04-19]

3.2
orientation
<of a surface> for a surface having a tangent plane at any point, property determined by the choice, continuously from point to point, of one of the two normal unit vectors at each point

[SOURCE: IEC 60050-102:2007, 102-04-36, modified – Note 1 to entry omitted.]

3.3
electric charge
additive scalar quantity, associated with elementary particles and with macroscopic matter that characterizes their electromagnetic interactions

[1] IEC 60617 is a database containing symbols referenced in the form (IEC 60617-Sxxxxx) where Sxxxxx is the identity number of the symbol.