SLOVENSKI STANDARD
SIST EN 60027-7:2010

01-december-2010

Črkovne oznake za elektrotehniko - 7. del: Proizvodnja, prenos in distribucija električne energije (IEC 60027-7:2010)

Letter symbols to be used in electrical technology - Part 7: Power generation, transmission and distribution (IEC 60027-7:2010)

Formelzeichen für die Elektrotechnik - Teil 7: Energieerzeugung, -übertragung und -verteilung (IEC 60027-7:2010)

Symboles littéraux à utiliser en électrotechnique - Partie 7: Production, transport et distribution de l'énergie électrique (CEI 60027-7:2010)

Ta slovenski standard je istoveten z: **EN 60027-7:2010**

ICS:

01.075	Simboli za znake	Character symbols
29.240.01	Omrežja za prenos in distribucijo električne energije na splošno	Power transmission and distribution networks in general

SIST EN 60027-7:2010 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English version

Letter symbols to be used in electrical technology - Part 7: Power generation, transmission and distribution

(IEC 60027-7:2010)

Symboles littéraux à utiliser en électrotechnique - Partie 7: Production, transport et distribution de l'énergie électrique (CEI 60027-7:2010)

Formelzeichen für die Elektrotechnik - Teil 7: Energieerzeugung, -übertragung und -verteilung (IEC 60027-7:2010)

This European Standard was approved by CENELEC on 2010-09-01. 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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CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 60027-7:2010 E

Foreword

The text of document 25/391/CDV, future edition 1 of IEC 60027-7, prepared by IEC TC 25, Quantities and units, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60027-7 on 2010-09-01.

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

The following dates were fixed:

– latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2011-06-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2013-09-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60027-7:2010 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 referenced documents are indispensable for the application 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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60027-1 + A1 + A2	1995 1997 2005	Letter symbols to be used in electrical technology - Part 1: General	EN 60027-1 - + A2[1]	2006 - 2007
IEC 60027-2	2005	Letter symbols to be used in electrical technology - Part 2: Telecommunications and electronics	EN 60027-2[2]	2007
IEC 60038	2009	IEC standard voltages	-	-
IEC 60050-121 + A1	1998 2002	International Electrotechnical Vocabulary (IEV) - Part 121: Electromagnetism	- -	- -
IEC 60050-131 + A1	2002 2008	International Electrotechnical Vocabulary (IEV) - Part 131: Circuit theory	- -	- -
IEC 60050-141	2004	International electrotechnical vocabulary - Part 141: Polyphase systems and circuits	-	-
IEC 60050-151	2001	International Electrotechnical Vocabulary (IEV) - Part 151: Electrical and magnetic devices	-	-
IEC 60050-195 + A1	1998 2001	International Electrotechnical Vocabulary (IEV) - Chapter 195: Earthing and protection against electric shock	- -	- -
IEC 60050-411 + A1	1996 2007	International Electrotechnical Vocabulary (IEV) - Chapter 411: Rotating machinery	- -	- -
IEC 60050-421	1990	International electrotechnical vocabulary (IEV) - Chapter 421: Power transformers and reactors	-	-
IEC 60050-441 + A1	1984 2000	International Electrotechnical Vocabulary (IEV) - Chapter 441: Switchgear, controlgear and fuses	- -	- -

[1] EN 60027-1 includes A1 to IEC 60027-1.

[2] EN 60027-2 is superseded by EN 80000-13:2008, which is based on IEC 80000-13:2008.

Publication	Year	Title	EN/HD	Year
IEC 60050-442	1998	International Electrotechnical Vocabulary - Part 442: Electrical accessories	-	-
IEC 60050-448	1995	International Electrotechnical Vocabulary (IEV) - Chapter 448: Power system protection	-	-
IEC 60050-466	1990	International electrotechnical vocabulary (IEV) - Chapter 466: Overhead lines	-	-
IEC 60050-601 + A1	1985 1998	International Electrotechnical Vocabulary (IEV) - Chapter 601: Generation, transmission and distribution of electricity - General	- -	- -
IEC 60050-603 + A1	1986 1998	International electrotechnical vocabulary - Chapter 603: Generation, transmission and distribution of electricity - Power system planning and management	- -	- -
IEC 60050-604 + A1	1987 1998	International Electrotechnical Vocabulary (IEV) - Chapter 604: Generation, transmission and distribution of electricity - Operation	- -	- -
IEC 60050-811	1991	International electrotechnical vocabulary (IEV) - Chapter 811: Electric traction	-	-
IEC 60909-0	2001	Short-circuit currents in three-phase a.c. systems - Part 0: Calculation of currents	EN 60909-0	2001
IEC/TR 60909-1	2002	Short-circuit currents in three-phase e.c. systems - Part 1: Factors for the calculation of short-circuit currents according to IEC 60909-0	-	-
IEC/TR 60909-2	2008	Short-circuit currents in three-phase a.c. systems - Part 2: Data of electrical equipment for short-circuit current calculations	-	-
IEC 60909-3	2003	Short-circuit currents in three-phase a.c systems - Part 3: Currents during two separate simultaneous line-to-earth short-circuits and partial short-circuit currents flowing through earth	EN 60909-3[3)]	2003
IEC 62428	2008	Electric power engineering - Modal components in three-phase a.c. systems - Quantities and transformations	EN 62428	2008
IEC 80000-6	2008	Quantities and units - Part 6: Electromagnetism	EN 80000-6	2008

[3)] EN 60909-3 is superseded by EN 60909-3:2010, which is based on IEC 60909-3:2009.

IEC 60027-7

Edition 1.0 2010-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Letter symbols to be used in electrical technology – Part 7: Power generation, transmission, and distribution

Symboles littéraux à utiliser en électrotechnique – Partie 7: Production, transport et distribution de l'énergie électrique

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

LETTER SYMBOLS TO BE USED IN ELECTRICAL TECHNOLOGY –

Part 7: Power generation, transmission, and distribution

FOREWORD

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International Standard IEC 60027-7 has been prepared by IEC technical committee 25: Quantities and units.

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

CDV	Report on voting
25/391/CDV	25/406/RVC

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.

A list of all parts of the IEC 60027 series, under the general title *Letter symbols to be used in electrical technology* can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site 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.

LETTER SYMBOLS TO BE USED IN ELECTRICAL TECHNOLOGY –

Part 7: Power generation, transmission, and distribution

1 Scope

This part of IEC 60027 is applicable to generation, transmission, and distribution of electric energy. It gives names and letter symbols for quantities and units. In addition, rules for multiple subscripts and their succession are given.

This part of IEC 60027 is an addition to IEC 60027-1. Therefore letter symbols already given in IEC 60027-1 are repeated only if they have a special meaning in the field of power generation, transmission, and distribution or if they are used in this field with special subscripts.

Guidance on the use of capital and lower case letters, is given in IEC 60027-1, 2.1, and guidance on the representation of complex quantities,is given in IEC 60027-1, 1.6. Therefore in many cases only U is given instead of $\underline{U}$, $|\underline{U}| = U$ or u.

2 Normative references

The following referenced documents are indispensable for the application 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 60027-1:1992, *Letter symbols to be used in electrical technology – Part 1: General*
Amendment 1:1997
Amendment 2:2005

IEC 60027-2:2005, *Letter symbols to be used in electrical technology – Part 2: Telecommunications and electronics*

IEC 60038:2009, *IEC standard voltages*

IEC 60050-121:1998, *International Electrotechnical Vocabulary – Part 121: Electromagnetism*

Amendment 1 (2002)

IEC 60050-131:2002, *International Electrotechnical Vocabulary – Part 131: Circuit theory*

Amendment 1 (2008)

IEC 60050-141:2004, *International Electrotechnical Vocabulary – Part 141: Polyphase systems and circuits*

IEC 60050-151:2001, *International Electrotechnical Vocabulary – Part 151: Electrical and magnetic devices*

IEC 60050-195:1998, *International Electrotechnical Vocabulary – Part 195: Earthing and protection against electric shock*

Amendment 1 (1998)

IEC 60050-411:1996, *International Electrotechnical Vocabulary – Chapter 411: Rotating machines*

Amendment 1 (2007)

IEC 60050-421:1990, *International Electrotechnical Vocabulary – Chapter 421: Power transformers and reactors*

IEC 60050-441:1984, *International Electrotechnical Vocabulary – Chapter 441: Switchgear, controlgear and fuses*

Amendment 1 (2000)

IEC 60050-442:1998, *International Electrotechnical Vocabulary – Part 442: Electrical accessories*

IEC 60050-448:1995, *International Electrotechnical Vocabulary – Chapter 448: Power system protection*

IEC 60050-466:1990, *International Electrotechnical Vocabulary – Chapter 466: Overhead lines*

IEC 60050-601:1985, *International Electrotechnical Vocabulary – Chapter 601: Generation, transmission and distribution of electricity – General*

Amendment 1 (1998)

IEC 60050-603:1986, *International Electrotechnical Vocabulary – Chapter 603: Generation, transmission and distribution of electricity – Power system planning and management*

Amendment 1 (1998)

IEC 60050-604:1987, *International Electrotechnical Vocabulary – Chapter 604: Generation, transmission and distribution of electricity – Operation*

Amendment 1 (1998)

IEC 60050-811:1991, *International Electrotechnical Vocabulary – Chapter 811: Electric traction*

IEC 60909-0:2001, *Short-circuit currents in three-phase AC systems – Part 0: Calculation of currents*

IEC/TR 60909-1:2002, *Short-circuit currents in three-phase AC systems – Part 1: Factors for the calculation of short-circuit currents according to IEC 60909-0*

IEC/TR 60909-2:2008, *Short-circuit currents in three-phase AC systems – Part 2: Data of electrical equipment for short-circuit current calculations*

IEC 60909-3:2003, *Short-circuit currents in three-phase AC systems – Part 3:Currents during two separate simultaneous line-to-earth short circuits and partial short-circuit currents flowing through earth*

IEC 62428:2008, *Electric power engineering – Modal components in three-phase a.c. systems – Quantities and transformations*

IEC 80000-6:2008, *Quantities and units – Part 6: Electromagnetism*