SLOVENSKI STANDARD

SIST EN 60027-6:2008

01-januar-2008

Ļrkovni simboli za uporabo v elektrotehnologiji - 6. del: Krmilna tehnologija (IEC 60027-6:2006)

Letter symbols to be used in elecrical technology - Part 6: Control technology (IEC 60027 -6:2006)

Formelzeichen für die Elektrotechnik - Teil 6: Steuerungs- und Regelungstechnik (IEC 60027-6:2006)

Symboles littéraux a utiliser en électrotechnique - Partie 6: Technologie de commande et de régulation (IEC 60027-6:2006)

Ta slovenski standard je istoveten z: **EN 60027-6:2007**

ICS:

01.060	Veliļine in enote	Quantities and units
01.075	Simboli za znake	Character symbols
29.020	Elektrotehnika na splošno	Electrical engineering in general

SIST EN 60027-6:2008 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60027-6

October 2007

ICS 01.060

Partially supersedes HD 60027-2:2003

English version

Letter symbols to be used in electrical technology - Part 6: Control technology
(IEC 60027-6:2006)

Symboles littéraux
à utiliser en électrotechnique -
Partie 6: Technologie de commande
et de régulation
(CEI 60027-6:2006)

Formelzeichen für die Elektrotechnik -
Teil 6: Steuerungs- und Regelungstechnik
(IEC 60027-6:2006)

This European Standard was approved by CENELEC on 2007-10-01. 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.

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 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, 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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Ref. No. EN 60027-6:2007 E

Foreword

The text of document 25/331/FDIS, future edition 1 of IEC 60027-6, prepared by IEC TC 25, Quantities and units, and their letter symbols, in co-operation with the International Federation of Automatic Control (IFAC), was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60027-6 on 2007-10-01.

This European Standard supersedes Clause 11 of HD 60027-2:2003.

In comparison with Clause 11 of HD 60027-2:2003 the following has been altered:

– the number of physical quantities and of their symbols listed in this European Standard has been increased significantly. New clauses for general quantities, for general functions, for characteristic quantities of the step response, for mapping functions and their quantities, and for parameters of transfer elements and control loops have been included;

– the hitherto existing series of reserve symbols for variable quantities of the control loop has been deleted. Four symbols out of this series have been used as new symbols for main quantities;

– the presentation of the denotation of some mathematical concepts specific to the field formerly given in 11.4 has been removed to the column “remarks” of the relevant tables.

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)	2008-07-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2010-10-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60027-6:2006 was approved by CENELEC as a European Standard without any modification.

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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	1992	Letter symbols to be used in electrical technology - Part 1: General	EN 60027-1 [1)]	2006
IEC 60027-2	2005	Letter symbols to be used in electrical technology - Part 2: Telecommunications and electronics	EN 60027-2	2007
IEC 60050-101	1998	International Electrotechnical Vocabulary (IEV) - Part 101: Mathematics	–	–
IEC 60050-351	2006	International Electrotechnical Vocabulary (IEV) - Part 351: Control technology	–	–
ISO 80000-3	2006	Quantities and units - Part 3: Space and time	–	–
ISO 31-5	1992	Quantities and units - Part 5: Electricity and magnetism	–	–
ISO 31-11	1992	Quantities and units - Part 11: Mathematical signs and symbols for use in the physical sciences and technology	–	–
ANSI/IEEE 280	1985	Letter Symbols for Quantities Used in Electrical Science and Electrical Engineering	–	–

[1)] EN 60027-1 is based on IEC 60027-1:1995 (Reprint) + A1:1997.

NORME INTERNATIONALE

INTERNATIONAL STANDARD

CEI
IEC
60027-6

Première édition
First edition
2006-12

Symboles littéraux à utiliser en électrotechnique –

Partie 6:
Technologie de commande et de régulation

Letter symbols to be used in electrical technology –

Part 6: Control technology

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International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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LETTER SYMBOLS TO BE USED IN ELECTRICAL TECHNOLOGY –

Part 6: Control technology

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

International Standard IEC 60027-6 has been prepared by IEC technical committee 25: Quantities and units, and their letter symbols, in co-operation with the International Federation of Automatic Control (IFAC).

This standard cancels and replaces IEC/PAS 60027-6 published in 2004. This first edition constitutes a technical revision.

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

FDIS	Report on voting
25/331/FDIS	25/341/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 part of IEC 60027 is intended to replace Clause 11 of IEC 60027-2:2000.

In comparison with Clause 11 of IEC 60027-2:2000 the following has been altered:

– the number of physical quantities and of their symbols listed in this International Standard has been increased significantly. New clauses for general quantities, for general functions, for characteristic quantities of the step response, for mapping functions and their quantities, and for parameters of transfer elements and control loops have been included;

– the hitherto existing series of reserve symbols for variable quantities of the control loop has been deleted. Four symbols out of this series have been used as new symbols for main quantities;

– the presentation of the denotation of some mathematical concepts specific to the field formerly given in 11.4 has been removed to the column “remarks” of the relevant tables.

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 maintenance result 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 6: Control technology

1 Scope

This part of IEC 60027 is applicable to control technology. It gives names and symbols for quantities, signals and functions, and their units.

2 Normative references

The following referenced documents are necessary 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*

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

IEC 60050-101:1998, *International Electrotechnical Vocabulary – Part 101: Mathematics*

IEC 60050-351:2006, *International Electrotechnical Vocabulary – Part 351: Control technology*

ISO 80000-3:2006, *Quantities and units – Part 3: Space and time*

ISO 31-5:1992, *Quantities and units – Part 5: Electricity and magnetism*

ISO 31-11:1992, *Quantities and units – Part 11: Mathematical signs and symbols for use in the physical sciences and technology*

ANSI/IEEE Std 280:1985, *Letter symbols for quantities used in electrical science and electrical engineering*

3 Principles

3.1 This standard presents a coherent body of letter symbols for the most important physical quantities and functions used in control science and technology, particularly for important variable quantities and (without distinction) the signals representing them.

3.2 All signals and the quantities 1.01 to 1.03, 2.03 to 2.04, 3.05, 4.03 to 4.05, 4.07, 5.01 to 5.03, 5.18 to 5.22, and 6.01 to 6.09 may have any physical form; it is the control engineering design function which characterizes them. Therefore, for the above listed quantities and functions it is not possible to appoint a special unit to them. For those quantities and functions for which this is possible (1.04 to 1.12, 2.01 to 2.02, 3.01 to 3.04, 4.01, 4.02, 4.06, and 5.04 to 5.17) any user of this standard knows the corresponding unit.