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Storheter och enheter i elektrotekniken – Del 1: Allmänt

*Letter symbols to be used in electrical technology –
Part 1: General*

Som svensk standard gäller europastandarden EN 60027-1:2006. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60027-1:2006.

Nationellt förord

Europastandarden EN 60027-1:2006

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60027-1, Sixth edition, 1992^{*)} - Letter symbols to be used in electrical technology - Part 1: General**

jämte

Amendment No 1, 1997

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-IEC 60027-1, utgåva 1, 2004, gäller ej fr o m 2015-10-21.

^{*)} Corrigendum April, 1993 till IEC 60027-1:1992 är inarbetat i standarden.

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Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60027-1

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English version

Letter symbols to be used in electrical technology
Part 1: General
(IEC 60027-1:1995 (Reprint) + A1:1997)

Symboles littéraux à utiliser en
électrotechnique
Partie 1: Généralités
(CEI 60027-1:1995 (Reprint) + A1:1997)

Formelzeichen für die Elektrotechnik
Teil 1: Allgemeines
(IEC 60027-1:1995 (Reprint) + A1:1997)

This European Standard was approved by CENELEC on 2006-10-01. 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, 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

Foreword

The text of the International Standard IEC 60027-1:1995 (Reprint) + A1:1997, prepared by IEC TC 25, Quantities and units, and their letter symbols, was approved by CENELEC as HD 60027-1:2004 on 2003-12-01.

Following BT Decision D125/089, this Harmonization Document was submitted to the formal vote for conversion into a European Standard and was approved by CENELEC as EN 60027-1 on 2006-10-01.

The following date was 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) 2007-10-01
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Endorsement notice

The text of the International Standard IEC 60027-1:1995 (Reprint) + A1:1997 was approved by CENELEC as a European Standard without any modification.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

LETTER SYMBOLS TO BE USED IN ELECTRICAL TECHNOLOGY**Part 1: General****FOREWORD**

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international cooperation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters, prepared by technical committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 3) They have the form of recommendations for international use published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.

This standard has been prepared by IEC technical committee 25: Quantities and units, and their letter symbols.

This standard forms the sixth edition of IEC 27-1* and supersedes the fifth edition issued in 1971, Amendments No. 1 (1974), No. 2 (1977), No. 3 (1981), No. 4 (1983) and the first supplement (Publication 27-1A (1976)).

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

DIS	Reports on voting
25(CO)96	25(CO)100
25(CO)97	25(CO)101
25(CO)98	25(CO)102
25(CO)99	25(CO)103

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

Annexes A, B and C of this International Standard are normative; Annexes D, E, F and G are informative:

IEC 27 consists of the following parts, under the general title *Letter symbols to be used in electrical technology*:

- Part 1: General
- Part 2: Telecommunications and electronics
- Part 3: Logarithmic quantities and units
- Part 4: Symbols for quantities to be used for rotating electrical machines

* This reprint (1992) contains a considerable number of editorial corrections compared to the first printing (1992-12).

LETTER SYMBOLS TO BE USED IN ELECTRICAL TECHNOLOGY**Part 1: General****SECTION 0: SCOPE**

This part 1 of the International Standard, IEC 27, gives information about general quantities, units and their letter symbols and mathematical symbols that are to be used in electrical technology. It also gives rules for writing and printing these symbols and for the use of additional marks (subscripts, superscripts, etc.) with symbols for quantities.

There are no normative references quoted in this International Standard.

Symbol	Quantity	Unit	Description
A	Electric current	ampere	Symbol: A
B	Magnetic flux	weber	Symbol: Wb
C	Capacitance	farad	Symbol: F
D	Dielectric constant	-	Symbol: ϵ_r
E	Electromotive force	volt	Symbol: V
F	Inductance	henry	Symbol: H
G	Conductance	siemens	Symbol: S
H	Magnetic field intensity	ampere per meter	Symbol: A/m
I	Induction	-	Symbol: Φ
J	Current density	ampere per square meter	Symbol: A/m ²
K	Temperature	kelvin	Symbol: K
L	Inductance	henry	Symbol: H
M	Magnetic moment	ampere per meter	Symbol: A·m
N	Magnetic flux density	tesla	Symbol: T
O	Permeability	-	Symbol: μ_r
P	Power	watt	Symbol: W
R	Resistance	ohm	Symbol: Ω
S	Surface density	ampere per square meter	Symbol: A/m ²
T	Temperature	kelvin	Symbol: K
U	Voltage	volt	Symbol: V
V	Volume density	ampere per cubic meter	Symbol: A/m ³
W	Work, energy	joule	Symbol: J
X	Extinction coefficient	-	Symbol: α
Z	Impedance	ohm	Symbol: Z