

SLOVENSKI STANDARD

SIST EN 60027-4:2008

01-januar-2008

Nadomešča:
SIST HD 245.4 S1:2004

Črkovni simboli za uporabo v elektrotehnologiji - 4. del: Električni rotacijski stroji
(IEC 60027-4:2006)

Letter symbols to be used in electrical technology -- Part 4: Rotating electric machines

Formelzeichen für die Elektrotechnik -- Teil 4: Drehende elektrische Maschinen

Symboles littéraires à utiliser en électrotechnique -- Partie 4: Machines électriques tournantes

[SIST EN 60027-4:2008](https://standards.iteh.ai/catalog/standards/sist/38c417a5-9212-4819-82fb-327538/sist-en-60027-4-2008)

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Ta slovenski standard je istoveten z: **EN 60027-4:2007**

ICS:

01.075	Simboli za znake	Character symbols
29.160.01	Rotacijski stroji na splošno	Rotating machinery in general

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en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60027-4

October 2007

ICS 01.060

Supersedes HD 245.4 S1:1987

English version

**Letter symbols to be used in electric technology -
Part 4: Rotating electric machines
(IEC 60027-4:2006)**

Symboles littéraux
à utiliser en électrotechnique -
Partie 4: Machines électriques tournantes
(CEI 60027-4:2006)

Formelzeichen für die Elektrotechnik -
Teil 4: Drehende elektrische Maschinen
(IEC 60027-4:2006)

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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.

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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 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

Foreword

The text of document 25/330/FDIS, future edition 2 of IEC 60027-4, prepared by IEC TC 25, Quantities and units, and their letter symbols, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60027-4 on 2007-10-01.

This European Standard supersedes HD 245.4 S1:1987.

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 60027-4:2006 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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60027-1	1992	Letter symbols to be used in electrical technology - Part 1: General	EN 60027-1 ¹⁾	2006
IEC 60034-1	2004	Rotating electrical machines - Part 1: Rating and performance	EN 60034-1	2004
IEC 60034-2	1972	Rotating electrical machines - Part 2: Methods for determining losses and efficiency of rotating electrical machinery from tests (excluding machines for traction vehicles)	EN 60034-2 ²⁾	1996
IEC 60034-4 (mod)	1985	Rotating electrical machines - Part 4: Methods for determining synchronous machine quantities from tests	EN 60034-4	1995
IEC 60034-9 (mod)	2003	Rotating electrical machines - Part 9: Noise limits	EN 60034-9	2005
IEC 60034-12	2002	Rotating electrical machines - Part 12: Starting performance of single-speed three-phase cage induction motors	EN 60034-12	2002
IEC/TS 60034-17 + corr. June + corr. April	2002 2002 2003	Rotating electrical machines - Part 17: Cage induction motors when fed from converters - Application guide	CLC/TS 60034-17	2004
IEC/TS 60034-20-1	2002	Rotating electrical machines - Part 20-1: Control motors - Stepping motors	CLC/TS 60034-20-1	2004
IEC 60034-26	2006	Rotating electrical machines - Part 26: Effects of unbalanced voltages on the performance of three-phase cage induction motors	EN 60034-26	2006

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

²⁾ EN 60034-2 includes supplement A:1974 to IEC 60034-2.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-101	1998	International Electrotechnical Vocabulary (IEV) - Part 101: Mathematics	—	—
IEC 60050-111	1996	International Electrotechnical Vocabulary (IEV) - Chapter 111: Physics and chemistry	—	—
IEC 60050-121	1998	International Electrotechnical Vocabulary (IEV) - Part 121: Electromagnetism	—	—
IEC 60050-131	2002	International Electrotechnical Vocabulary (IEV) - Part 131: Circuit theory	—	—
IEC 60050-151	2001	International Electrotechnical Vocabulary (IEV) - Part 151: Electrical and magnetic devices	—	—
IEC 60050-411	1996	International Electrotechnical Vocabulary (IEV) - Chapter 411: Rotating machinery	—	—
IEC 61986	2002	Rotating electrical machines - Equivalent loading and super-position techniques - Indirect testing to determine temperature rise	EN 61986	2002

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NORME INTERNATIONALE INTERNATIONAL STANDARD

**CEI
IEC**

60027-4

Deuxième édition
Second edition
2006-12

Symboles littéraux à utiliser en électrotechnique –

Partie 4: Machines électriques tournantes

**Letter symbols to be used in
electrical technology –**

Part 4: Rotating electric machines

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE

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Pour prix, voir catalogue en vigueur
For price, see current catalogue

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**LETTER SYMBOLS TO BE USED IN
ELECTRICAL TECHNOLOGY –****Part 4: Rotating electric machines****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 60027-4 has been prepared by IEC technical committee 25: Quantities and units and their symbols.

This second edition cancels and replaces the first edition published in 1985 and constitutes a technical revision.

This edition is a complete revision of the previous edition of IEC 60027-4.

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

FDIS	Report on voting
25/330/FDIS	25/340/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 list of all the 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 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.

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LETTER SYMBOLS TO BE USED IN ELECTRICAL TECHNOLOGY –

Part 4: Rotating electric machines

1 Scope

This part of IEC 60027 is applicable to rotating electric machines. It gives names and symbols for quantities and units.

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*

IEC 60034-1:2004, *Rotating electrical machines – Part 1: Rating and performance*

IEC 60034-2:1972, *Rotating electrical machines – Part 2: Methods for determining losses and efficiency of rotating electrical machinery from tests (excluding machines for traction vehicles)*

IEC 60034-4:1985, *Rotating electrical machines – Part 4: Methods for determining synchronous machine quantities from tests*

IEC 60034-9:2003, *Rotating electrical machines – Part 9: Noise limits*

IEC 60034-12:2002, *Rotating electrical machines – Part 12: Starting performance of single-speed three-phase cage induction motors*

IEC 60034-17:2002, *Rotating electrical machines – Part 17: Cage induction motors when fed from converters – Application guide*

IEC 60034-20-1:2002, *Rotating electrical machines – Part 20-1: Control motors – Stepping motors*

IEC 60034-26:2006, *Rotating electrical machines – Part 26: Effects of unbalanced voltages on the performance of three-phase cage induction motors*

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

IEC 60050-111:1996, *International Electrotechnical Vocabulary (IEV) – Part 111: Physics and chemistry*

IEC 60050-121:1998, *International Electrotechnical Vocabulary (IEV) – Part 121: Electro-magnetism*