SLOVENSKI STANDARD
SIST EN 60034-22:2010

01-februar-2010

Nadomešča:
SIST EN 60034-22:1999

Električni rotacijski stroji - 22. del: Izmenični generatorji za generatorske sklope, ki jih poganjajo batni stroji z notranjim zgorevanjem (IEC 60034-22:2009)

Rotating electrical machines - Part 22: AC generators for reciprocating internal combustion (RIC) engine driven generating sets (IEC 60034-22:2009)

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Drehende elektrische Maschinen - Teil 22: Wechselstromgeneratoren für Stromerzeugungsaggregate mit Hubkolben-Verbrennungsmotoren (IEC 60034-22:2009)

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Machines électriques tournantes - Partie 22: Génératrices à courant alternatif pour groupes électrogènes entraînés par un moteur à combustion interne (CEI 60034-22:2009)

Ta slovenski standard je istoveten z: **EN 60034-22:2009**

ICS:

27.020	Motorji z notranjim zgorevanjem	Internal combustion engines
29.160.40	Električni agregati	Generating sets

SIST EN 60034-22:2010 **en,fr**

2003-01.Slovenski inštitut za standardizacijo. Razmnoževanje celote ali delov tega standarda ni dovoljeno.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60034-22

December 2009

ICS 29.160

Supersedes EN 60034-22:1997

English version

Rotating electrical machines - Part 22: AC generators for reciprocating internal combustion (RIC) engine driven generating sets

(IEC 60034-22:2009)

Machines électriques tournantes -
Partie 22: Génératrices à courant alternatif
pour groupes électrogènes
entraînés par un moteur
à combustion interne
(CEI 60034-22:2009)

Drehende elektrische Maschinen -
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für Stromerzeugungsaggregate
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(IEC 60034-22:2009)

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This European Standard was approved by CENELEC on 2009-11-01. 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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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: Avenue Marnix 17, B - 1000 Brussels

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Ref. No. EN 60034-22:2009 E

SIST EN 60034-22:2010

Foreword

The text of document 2/1568/FDIS, future edition 2 of IEC 60034-22, prepared by IEC TC 2, Rotating machinery, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60034-22 on 2009-11-01.

This European Standard supersedes EN 60034-22:1997.

The technical changes with regard to EN 60034-22:1997 include:

– Clause 2: The standards which were not referenced in the text have been deleted.

– Clause 3: Technical and editorial changes to many of the definitions have been made.

– Clause 4: In the NOTE, the quantity T_L has been replaced by *TL*.

– Clause 7: Technical and editorial changes to many clauses have been made.

– Clause 9: Table 1 has been revised.

– Annex A: This annex has been revised.

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)	2010-08-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2012-11-01

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Annex ZA have been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 60034-22:2009 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60027-1	NOTE	Harmonized as EN 60027-1:2006 (not modified).
IEC 60027-4	NOTE	Harmonized as EN 60027-4:2007 (not modified).
IEC 60034-26	NOTE	Harmonized as EN 60034-26:2006 (not modified).

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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 60034-1	2004	Rotating electrical machines - Part 1: Rating and performance	EN 60034-1	2004
IEC 60085	-[1)]	Electrical insulation - Thermal evaluation and designation	EN 60085	2008[2)]
CISPR 11 (mod)	-[1)]	Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement	EN 55011	2009[2)]

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[1)] Undated reference.

[2)] Valid edition at date of issue.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ROTATING ELECTRICAL MACHINES –

Part 22: AC generators for reciprocating internal combustion (RIC) engine driven generating sets

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 60034-22 has been prepared by IEC technical committee 2: Rotating machinery.

This second edition cancels and replaces the first edition published in 1996 and constitutes a technical revision.

The technical changes with regard to the previous edition include:

– Clause 2: The standards which were not referenced in the text have been deleted.
– Clause 3: Technical and editorial changes to many of the definitions have been made.
– Clause 4: In the NOTE, the quantity T_L has been replaced by *TL*.
– Clause 7: Technical and editorial changes to many clauses have been made.
– Clause 9: Table 1 has been revised.
– Annex A: This annex has been revised.

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

FDIS	Report on voting
2/1568/FDIS	2/1573/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.

A list of all parts of IEC 60034 series, under the general title, *Rotating electrical machines*, can be found on the IEC website.

NOTE A table of cross-references of all IEC TC 2 publications can be found in the IEC TC 2 dashboard 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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ROTATING ELECTRICAL MACHINES –

Part 22: AC generators for reciprocating internal combustion (RIC) engine driven generating sets

1 Scope

This part of IEC 60034 establishes the principal characteristics of a.c. generators under the control of their voltage regulators when used for reciprocating internal combustion (RIC) engine driven generating set applications and supplements the requirements given in IEC 60034-1. It covers the use of such generators for land and marine use, but excludes generating sets used on aircraft or used to propel land vehicles and locomotives.

NOTE 1 For some specific applications (e.g. essential hospital supplies, high-rise buildings, etc.) supplementary requirements may be necessary. The provisions of this standard should be regarded as a basis for such requirements.

NOTE 2 Attention is drawn to the need to take note of additional regulations or requirements imposed by various regulatory bodies. Such regulations or requirements may form the subject of agreement between the customer and the manufacturer when conditions of use of the end product invoke such requirements.

NOTE 3 Examples of regulatory authorities:

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– classification societies, for generating sets used on ships and offshore installations;
– government agencies;
– inspection agencies, local utilities, etc.

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Annex A discusses the behaviour of generators covered by this standard when subjected to sudden load changes.

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

IEC 60085, *Electrical insulation – Thermal evaluation and designation*

CISPR 11, *Industrial, scientific and medical equipment – Radio-frequency disturbance characteristics – Limits and methods of measurement*

3 Terms and definitions

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

NOTE 1 In this standard, suffix “N” is used for “rated” in accordance with IEC 60027-1 and IEC 60027-4 whereas in ISO 8528, suffix “r” is so used.

NOTE 2 Voltage terms relate to a generator running at constant (rated) speed under the control of the normal excitation and voltage control system.