SLOVENSKI STANDARD

SIST EN 62211:2004

julij 2004

Inductive components - Reliability management (IEC 62211:2003)

ICS 29.100.10

Referenčna številka
SIST EN 62211:2004(en)

EUROPEAN STANDARD **EN 62211**

NORME EUROPÉENNE

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English version

Inductive components – Reliability management
(IEC 62211:2003)

Composants inductifs – Gestion de la fiabilité (CEI 62211:2003)

Induktive Bauelemente - Zuverlässigkeitsmanagement (IEC 62211:2003)

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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.

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

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Ref. No. EN 62211:2004 E

Foreword

The text of document 51/724/FDIS, future edition 1 of IEC 62211, prepared by IEC TC 51, Magnetic components and ferrite materials, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62211 on 2003-12-01.

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) 2004-09-01

– latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2006-12-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62211:2003 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 60068-2-1	- [1]	Environmental testing Part 2: Tests - Tests A: Cold	EN 60068-2-1	1993 [2]
IEC 60068-2-2	- [1]	Part 2: Tests - Test B: Dry heat	EN 60068-2-2	1993 [2]
IEC 60068-2-6	- [1]	Part 2: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	1995 [2]
IEC 60068-2-14	- [1]	Part 2: Tests - Test N: Change of temperature	EN 60068-2-14	1999 [2]
IEC 60068-2-20	- [1]	Part 2: Tests - Test T: Soldering	HD 323.2.20 S3	1988 [2]
IEC 60068-2-27	- [1]	Part 2: Tests - Test Ea and guidance: Shock	EN 60068-2-27	1993 [2]
IEC 60068-2-29	- [1]	Part 2: Tests - Test Eb and guidance: Bump	EN 60068-2-29	1993 [2]
IEC 60068-2-30	- [1]	Part 2: Tests - Test Db and guidance: Damp heat, cyclic (12 + 12 hour cycle)	EN 60068-2-30	1999 [2]
IEC 60068-2-58	- [1]	Part 2-58: Tests - Test Td: Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)	EN 60068-2-58	1999 [2]
IEC 60068-2-78	- [1]	Part 2-78: Tests - Test Cab: Damp heat, steady state	EN 60068-2-78	2001 [2]
IEC 60424	Series	Ferrite cores - Guide on the limits of surface irregularities	EN 60424	Series
IEC 61007 (mod)	- [1]	Transformers and inductors for use in electronic and telecommunication equipment - Measuring methods and test procedures	EN 61007	1997 [2]

[1] Undated reference.

[2] Valid edition at date of issue.

Publication	Year	Title	EN/HD	Year
IEC 61248	Series	Transformers and inductors for use in electronic and telecommunication equipment	EN 61248	Series

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Composants inductifs – Gestion de la fiabilité

Inductive components – Reliability management

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Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

INDUCTIVE COMPONENTS – RELIABILITY MANAGEMENT

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 62211 has been prepared by IEC technical committee 51: Magnetic components and ferrite materials.

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

FDIS	Report on voting
51/724/FDIS	51/739/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 committee has decided that the contents of this publication will remain unchanged until 2005. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

INDUCTIVE COMPONENTS – RELIABILITY MANAGEMENT

1 Scope

This International Standard is applicable to inductive components (chokes and transformers) based on magnetically soft materials. These are especially components based on laminated iron sheets, iron powder materials (including alloys), as well as ferrites and amorphous or crystalline metal band cores.

Winding assemblies means wire winding assemblies as well as multilayer and stacking technologies of planar technology including the coil based on non-magnetic materials. Discrete type components and the different types of surface-mountable inductive components (SMD) are also considered in this standard.

The reliability of assemblies of inductive components based on several technologies such as glued types, types with clamps (clips), impregnated (varnished) types as well as (vacuum) potted types can also be checked with this standard.

The subsequent determinations can be applied either for the primary qualification of inductive components or for all ways of requalification examinations (design, process, change of production facility). They can also be applied for the monitoring of products out of actual manufacturing processes.

This standard sets up a broad basis of electric and mechanical criteria of failure test procedures.

If manufacturers advertise compliance with this standard in their data sheets, customers may request data to demonstrate compliance to this standard. The customers may also request the product to be in compliance to this standard by a recognised national institute.

Customers and manufacturers may elect to perform additional testing and acceptance criteria different than those defined in this standard.

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 60068-2-1, *Environmental testing – Part 2: Tests. Tests A: Cold*

IEC 60068-2-2, *Environmental testing – Part 2: Tests. Tests B: Dry heat*

IEC 60068-2-6, *Environmental testing – Part 2: Tests – Test Fc: Vibration (sinusoidal)*

IEC 60068-2-14, *Environmental testing – Part 2: Tests. Test N: Change of temperature*

IEC 60068-2-20, *Environmental testing – Part 2: Tests. Test T: Soldering*