SLOVENSKI STANDARD
SIST EN 60401-3:2016

01-junij-2016

Nadomešča:
SIST EN 60401-3:2004

Pojmi in nomenklatura za jedra iz mehkomagnetnega ferita - 3. del: Smernice o velikosti podatkov, ki se pojavljajo v katalogih proizvajalcev jeder za transformatorje in tuljave

Terms and nomenclature for cores made of magnetically soft ferrites - Part 3: Guidelines on the format of data appearing in manufacturers' catalogues of transformaer and inductor cores

Termes et nomenclature pour noyaux en matériaux ferrites magnétiquement doux - Partie 3: Lignes directrices relatives aux formats des données figurant dans les catalogues des fabricants de noyaux pour transformateurs et inductances

Ta slovenski standard je istoveten z: **EN 60401-3:2016**

ICS:

29.100.10 Magnetne komponente Magnetic components

SIST EN 60401-3:2016 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60401-3

March 2016

ICS 29.100.10

Supersedes EN 60401-3:2003

English Version

Terms and nomenclature for cores made of magnetically soft ferrites - Part 3: Guidelines on the format of data appearing in manufacturers catalogues of transformer and inductor cores (IEC 60401-3:2015)

Termes et nomenclature pour noyaux en matériaux ferrites magnétiquement doux - Partie 3: Lignes directrices relatives aux formats des données figurant dans les catalogues des fabricants de noyaux pour transformateurs et inductances (IEC 60401-3:2015)

Begriffe und Bezeichnungssystem für Kerne aus weichmagnetischen Ferriten - Teil 3: Leitfaden für das Datenformat für Übertrager- und Spulenkerne in Herstellerkatalogen (IEC 60401-3:2015)

This European Standard was approved by CENELEC on 2016-01-08. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

The text of document 51/1106/FDIS, future edition 2 of IEC 60401-3, prepared by IEC/TC 51 "Magnetic components and ferrite materials" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60401-3:2016.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2016-10-08
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2019-01-08

This document supersedes EN 60401-3:2003.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 60401-3:2015 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 60424 Series	NOTE	Harmonized as EN 60424 Series.
IEC 60424-1	NOTE	Harmonized as EN 60424-1.
IEC 60424-2	NOTE	Harmonized as EN 60424-2.
IEC 60424-3	NOTE	Harmonized as EN 60424-3.
IEC 60424-4	NOTE	Harmonized as EN 60424-4.
IEC 60424-5	NOTE	Harmonized as EN 60424-5.
IEC 61631	NOTE	Harmonized as EN 61631.
IEC 62044-1	NOTE	Harmonized as EN 62044-1.
IEC 62211	NOTE	Harmonized as EN 62211.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu

Publication	Year	Title	EN/HD	Year
IEC 61332	2005	Soft ferrite material classification	EN 61332	2005
IEC 62044-2	-	Cores made of soft magnetic materials - Measuring methods - Part 2: Magnetic properties at low excitation level	EN 62044-2	-
IEC 62044-3	-	Cores made of soft magnetic materials - Measuring methods - Part 3: Magnetic properties at high excitation level	EN 62044-3	-

IEC 60401-3

Edition 2.0 2015-12

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Terms and nomenclature for cores made of magnetically soft ferrites – Part 3: Guidelines on the format of data appearing in manufacturers catalogues of transformer and inductor cores

Termes et nomenclature pour noyaux en matériaux ferrites magnétiquement doux – Partie 3: Lignes directrices relatives aux formats des données figurant dans les catalogues des fabricants de noyaux pour transformateurs et inductances

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 29.100.10

ISBN 978-2-8322-3029-9

Warning! Make sure that you obtained this publication from an authorized distributor.
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

TERMS AND NOMENCLATURE FOR CORES MADE OF MAGNETICALLY SOFT FERRITES –

Part 3: Guidelines on the format of data appearing in manufacturers catalogues of transformer and inductor cores

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.
2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
6) All users should ensure that they have the latest edition of this publication.
7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
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 60401-3 has been prepared IEC technical committee 51: Magnetic components and ferrite materials.

This second edition cancels and replaces the first edition published in 2003. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) addition of reliability in Clause 6.

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

FDIS	Report on voting
51/1106/FDIS	51/1121/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 in the IEC 60401 series, published under the general title *Terms and nomenclature for cores made of magnetically soft ferrites*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website 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.

INTRODUCTION

For various reasons, a manufacturer may wish to publish in its catalogue typical data for material parameters as measured on test pieces. It is the object of this part of IEC 60401 to promote the comparability of such information in the area of soft ferrite materials.

Except for several specific property limits that should be given separately for each particular core, the properties described in this standard are material characteristics, intended to facilitate meaningful evaluation of ferrite materials. It should be recognized, however, that there is no direct relation between material characteristics as measured on test pieces and the corresponding parameters measured on other cores, made of the same material, because of differences in geometry and variation in production processes. Also, the extrapolation of material characteristics to other flux densities and other frequencies will not permit valid comparison of cores of different materials under these new conditions of operation.

It is therefore emphasized that it is impossible to design and specify a core on the basis of material properties published by a manufacturer in its catalogue, without due contact with that manufacturer. Also, the publication of material characteristics should not be considered as a guarantee for core properties; for this purpose, only the specification of that core should be used.

It is strongly recommended that, together with the material characteristics, manufacturers publish a note covering the two statements above on the limitations of this kind of information.

This standard further addresses the comparability of various grades of ferrite from different manufacturers by defining the baseline reliability and temperature performance that is inherent for all MnZn ferrite materials, and the limitations that exist when specifying related performance characteristics in ferrite cores.