

## Test method for the mechanical strength of cores made of magnetic oxides

# Méthode d'essai pour la résistance mécanique des noyaux en oxydes magnétiques

# Prüfverfahren zur Bestimmung der mechanischen Festigkeit von magnetischen Oxidkernen

06/2020

## National Foreword

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ILNAS-EN IEC 61631:2020

EUROPEAN STANDARD **EN IEC 61631**

NORME EUROPÉENNE

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Supersedes EN 61631:2001 and all of its amendments  
and corrigenda (if any)

English Version

**Test method for the mechanical strength of cores made of  
magnetic oxides  
(IEC 61631:2020)**

Méthode d'essai pour la résistance mécanique des noyaux  
en oxydes magnétiques  
(IEC 61631:2020)

Prüfverfahren zur Bestimmung der mechanischen Festigkeit  
von magnetischen Oxidkernen  
(IEC 61631:2020)

This European Standard was approved by CENELEC on 2020-06-11. 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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European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

## European foreword

The text of document 51/1312/CDV, future edition 2 of IEC 61631, prepared by IEC/TC 51 "Magnetic components, ferrite and magnetic powder materials" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61631:2020.

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) 2021-03-11
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-06-11

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The text of the International Standard IEC 61631:2020 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 63093-6	NOTE	Harmonized as EN IEC 63093-6
IEC 63093-8	NOTE	Harmonized as EN IEC 63093-8
IEC 63093-12	NOTE	Harmonized as EN IEC 63093-12

## Annex ZA

(normative)

### Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 Where 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](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 7500-2	-	Metallic materials - Verification of static uniaxial testing machines – Part 2: Tension creep testing machines - Verification of the applied force	EN ISO 7500-2	-



# INTERNATIONAL STANDARD

**Test method for the mechanical strength of cores made of magnetic oxides**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**TEST METHOD FOR THE MECHANICAL STRENGTH  
OF CORES MADE OF MAGNETIC OXIDES**

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International Standard IEC 61631 has been prepared by IEC technical committee 51: Magnetic components, ferrite and magnetic powder materials.

This second edition cancels and replaces the first edition published in 2001. This edition constitutes a technical revision.

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

- a) the phrase: "This document is also applicable to the mechanical strength measurement of magnetic powder cores" has been added in the scope;
- b) IEC 61246 has been replaced by IEC 63093-8; EN 1002-2 has been replaced by ISO 7500-1; ISO 4677-1 and ISO 4677-2 have been withdrawn;
- c) dimensions  $D$  and  $F$  in Figure A.1 and Table A.1 have been changed to be consistent with Figure 1 of IEC 63093-8:2018;
- d) addition of the content of ring-cores test;
- e) addition of Annex B;