

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Magnetic powder cores – Guidelines on dimensions and the limits of surface irregularities –
Part 3: E-cores**

**Noyaux en poudre magnétique – Lignes directrices concernant les dimensions
et les limites des irrégularités de surface –
Partie 3: Noyaux E**





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INTERNATIONAL ELECTROTECHNICAL COMMISSION

MAGNETIC POWDER CORES – GUIDELINES ON DIMENSIONS AND THE LIMITS OF SURFACE IRREGULARITIES –

Part 3: E-cores

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IEC 63182-3 has been prepared by IEC technical committee 51: Magnetic components, ferrite and magnetic powder materials. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
51/1397/FDIS	51/1402/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts in the IEC 63182 series, published under the general title *Magnetic powder cores – Guidelines on dimensions and the limits of surface irregularities* can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

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- withdrawn,
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- amended.

MAGNETIC POWDER CORES – GUIDELINES ON DIMENSIONS AND THE LIMITS OF SURFACE IRREGULARITIES –

Part 3: E-cores

1 Scope

This part of IEC 63182 specifies the dimensions that are of importance for mechanical interchangeability for a preferred range of E-cores made of metallic magnetic powder, the essential dimensions of coil formers to be used with them as well as the effective parameter values to be used in calculations involving them, and gives guidelines on allowable limits of surface irregularities applicable to E-cores.

This document is a specification useful in the negotiations between magnetic powder core suppliers and users about surface irregularities.

The use of "derived" standards which give more detailed specifications of component parts while still permitting compliance with this document is discussed in Annex A.

2 Normative references

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.

IEC 60205, *Calculation of the effective parameters of magnetic piece parts*

IEC 63182-1, *Magnetic powder cores – Guidelines on dimensions and the limits of surface irregularities – Part 1: General specification*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 63182-1 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO online browsing platform: available at <http://www.iso.org/obp>

4 Primary dimensions

4.1 General

Compliance with the following requirements ensures mechanical interchangeability of complete assemblies and coil formers.