

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Ferrite cores – Guidelines on dimensions and the limits of surface irregularities –
Part 12: Ring-cores**

**Noyaux ferrites – Lignes directrices relatives aux dimensions et aux limites des
irrégularités de surface –
Partie 12: Noyaux toriques**



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IEC Central Office
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FERRITE CORES – GUIDELINES ON DIMENSIONS
AND THE LIMITS OF SURFACE IRREGULARITIES –****Part 12: Ring-cores**

FOREWORD

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International Standard IEC 63093-12 has been prepared by IEC technical committee 51: Magnetic components, ferrite and magnetic powder materials.

This first edition cancels and replaces the first edition of IEC 62317-12 published in 2016 and the second edition of IEC 60424-4 published in 2015. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to IEC 62317-12:2016 and IEC 60424-4:2015:

- a) IEC 63093-12 integrates the contents of IEC 62317-12:2016 and IEC 60424-4:2015.

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

FDIS	Report on voting
51/1271/FDIS	51/1284/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 63093 series, published under the general title *Ferrite 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 "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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- withdrawn,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

FERRITE CORES – GUIDELINES ON DIMENSIONS AND THE LIMITS OF SURFACE IRREGULARITIES –

Part 12: Ring-cores

1 Scope

This part of IEC 63093 specifies the dimensions that are of importance for mechanical interchangeability for a preferred range of ring-cores, also called toroid cores, and the effective parameter values to be used in calculations involving them. It also gives guidelines on allowable limits of surface irregularities applicable to ring-cores.

This document is a specification useful in the negotiations between ferrite core manufacturers and users about surface irregularities.

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 60401-1, *Terms and nomenclature for cores made of magnetically soft ferrites – Part 1: Terms used for physical irregularities*

IEC 60424-1, *Ferrite cores – Guidelines on 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 60401-1 and IEC 60424-1 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 wound coils.