

## **Ferrite cores - Dimensions -- Part 1: General specification**

Ferrite cores - Dimensions -- Part 1: General  
specification

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 62317-1:2007 sisaldab Euroopa standardi EN 62317-1:2007 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 62317-1:2007 consists of the English text of the European standard EN 62317-1:2007.</p> <p>This document is endorsed on 23.11.2007 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b></p> <p>This part of IEC 62317 specifies the standards and existing projects dealing with dimensions of ferrite cores. It is intended that this standard will include ferrite cores which are widely used and referenced in industry, either because they are included in national standards, or because they are seen to have broad-based use in industry. Where applicable, it is intended that the existing industrial name for each standard part should appear with the part within this series. It is intended that this standard will exclude ferrite cores which are specialty cores with limited use. Also, special cores which are only marginal variations upon standard cores are excluded.</p>	<p><b>Scope:</b></p> <p>This part of IEC 62317 specifies the standards and existing projects dealing with dimensions of ferrite cores. It is intended that this standard will include ferrite cores which are widely used and referenced in industry, either because they are included in national standards, or because they are seen to have broad-based use in industry. Where applicable, it is intended that the existing industrial name for each standard part should appear with the part within this series. It is intended that this standard will exclude ferrite cores which are specialty cores with limited use. Also, special cores which are only marginal variations upon standard cores are excluded.</p>
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ICS 29.100.10

Võtmesõnad:

English version

**Ferrite cores -  
Dimensions -  
Part 1: General specification  
(IEC 62317-1:2007)**

Noyaux en ferrite -  
Dimensions -  
Partie 1: Spécifications générales  
(CEI 62317-1:2007)

Ferritkerne -  
Maße -  
Teil 1: Allgemeine Festlegungen  
(IEC 62317-1:2007)

This European Standard was approved by CENELEC on 2007-08-01. 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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**CENELEC**

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of document 51/874/CDV, future edition 1 of IEC 62317-1, prepared by IEC TC 51, Magnetic components and ferrite materials, was submitted to the IEC-CENELEC Parallel Unique Acceptance Procedure and was approved by CENELEC as EN 62317-1 on 2007-08-01.

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) | 2008-05-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn   | (dow) | 2010-08-01 |

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 62317-1:2007 was approved by CENELEC as a European Standard without any modification.

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## 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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60133	- <sup>1)</sup>	Dimensions of pot-cores made of magnetic oxides and associated parts	EN 60133	2001 <sup>2)</sup>
IEC 60647	- <sup>1)</sup>	Dimensions for magnetic oxide cores intended for use in power supplies (EC-cores)	-	-
IEC 61185	- <sup>1)</sup>	Ferrite cores (ETD-cores) intended for use in power supply applications - Dimensions	EN 61185	2005 <sup>2)</sup>
IEC 61247	- <sup>1)</sup>	PM-cores made of magnetic oxides and associated parts - Dimensions	EN 61247	1997 <sup>2)</sup>
IEC 61596	- <sup>1)</sup>	Magnetic oxide EP-cores and associated parts for use in inductors and transformers - Dimensions	EN 61596	1997 <sup>2)</sup>
IEC 62317-4	- <sup>1)</sup>	Ferrite cores - Dimensions - Part 4: RM-cores and associated parts	EN 62317-4	2005 <sup>2)</sup>
IEC 62317-7	- <sup>1)</sup>	Ferrite cores - Dimensions - Part 7: EER-cores	EN 62317-7	2005 <sup>2)</sup>
IEC 62317-8	- <sup>1)</sup>	Ferrite cores - Dimensions - Part 8: E-cores	EN 62317-8	2006 <sup>2)</sup>
IEC 62317-9	- <sup>1)</sup>	Ferrite cores - Dimensions - Part 9: Planar cores	EN 62317-9	2006 <sup>2)</sup>
IEC 62323	- <sup>1)</sup>	Dimensions of half pot-cores made of ferrite for inductive proximity switches	EN 62323	2005 <sup>2)</sup>
IEC/TR 61604	- <sup>1)</sup>	Dimensions of uncoated ring cores of magnetic oxides	-	-

<sup>1)</sup> Undated reference.

<sup>2)</sup> Valid edition at date of issue.

# INTERNATIONAL STANDARD

**IEC**  
**62317-1**

First edition  
2007-07

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**Ferrite cores –  
Dimensions –**

**Part 1:  
General specification**



Reference number  
IEC 62317-1:2007(E)



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The IEC on-line Catalogue enables you to search by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, withdrawn and replaced publications.

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International Electrotechnical Commission  
Международная Электротехническая Комиссия

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FERRITE CORES –  
DIMENSIONS –****Part 1: General specification****FOREWORD**

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- 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 62317-1 has been prepared IEC technical committee 51: Magnetic components and ferrite materials.

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

CDV	Report on voting
51/874/CDV	51/890/RVC

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 of IEC 62317 series, published under the general title *Ferrite cores – Dimensions*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site 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.

A bilingual version of this publication may be issued at a later date.

# **FERRITE CORES – DIMENSIONS –**

## **Part 1: General specification**

### **1 Scope**

This part of IEC 62317 specifies the standards and existing projects dealing with dimensions of ferrite cores.

It is intended that this standard will include ferrite cores which are widely used and referenced in industry, either because they are included in national standards, or because they are seen to have broad-based use in industry. Where applicable, it is intended that the existing industrial name for each standard part should appear with the part within this series.

It is intended that this standard will exclude ferrite cores which are specialty cores with limited use. Also, special cores which are only marginal variations upon standard cores are excluded.

Examples:

E24/25 (USA) and E24,5 (Metric) are two similar parts, yet they are included separately in this series because they are national standards, widely used.

E-187 (USA) and FEE19A (Japan) are two similar parts, yet they are included separately in this series because they are national standards, widely used.

EP5 has small dimensional differences when comparing different manufacturers, yet only one EP5 is shown in this series, because they are only minor variations on the single basic part.

A ferrite core produced by only one or two suppliers may generally be considered a specialty part, and not suitable as a standard core within this series. A ferrite core produced by three or more competing manufacturers may generally be considered to be a candidate to be included in this series.

IEC publishes electrical standards for families of ferrite cores, as well as this series of dimensional standards for families of ferrite cores. Modifications to the ferrite cores listed in one type of standard should be reflected in the other type.

### **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 60133, *Dimensions of pot-cores made of magnetic oxides and associated parts*

IEC 60647, *Dimensions for magnetic oxide cores intended for use in power supplies (EC-cores)*

IEC 61185, *Ferrite cores (ETD-cores) intended for use in power supply applications – Dimensions*

IEC 61247, *PM-cores made of magnetic oxides and associated parts – Dimensions*

IEC 61596, *Magnetic oxide EP-cores and associated parts for use in inductors and transformers – Dimensions*

IEC 62317-4, *Ferrite cores – Dimensions – Part 4: RM-cores and associated parts*

IEC 62317-7, *Ferrite cores – Dimensions – Part 7: EER-cores*

IEC 62317-8, *Ferrite cores – Dimensions – Part 8: E-cores*

IEC 62317-9, *Ferrite cores – Dimensions – Part 9: Planar cores*

IEC 62323, *Dimensions of half pot-cores made of ferrite for inductive proximity switches*

IEC/TR 61604, *Dimensions of uncoated ring cores of magnetic oxides*

### 3 Transition of existing publications and projects

The standards that are to be included within the IEC 62317 series include existing standards, future standards already in development, and future standards that may be developed later. The new references should be recorded on the IEC web site as follows:

- for existing projects: the new project numbers should be recorded on the IEC web site at the time of circulation of next working drafts, with an explanatory note on the cover sheet;
- for existing publications: the publication numbers should be updated at the time of each new revision of these standards. An explanatory note should be included in the foreword of future publications;
- for future new projects, the new project numbers should be selected to be consistent with the IEC 62317 series.

A table showing existing project (or publication) references and the proposed new project (or publication) references is given in Table A.1.

### 4 Dimension descriptions

Table 1 and Table 2 describe the alphabetic character assignments for the major dimensions of ferrite shapes. All other minor core dimension designations are left to the discretion of the specifier.

**Table 1 – Toroid core dimension designations**

Letter	Dimension description
A	Toroid outside diameter
B	Toroid inside diameter
C	Toroid height