

BS EN 62317-6:2016



BSI Standards Publication

Ferrite cores — Dimensions

Part 6: ETD-cores for use in power supplies

bsi.

...making excellence a habit.
AVA Documents™
Document Sharing Hub

National foreword

This British Standard is the UK implementation of EN 62317-6:2016. It is identical to IEC 62317-6:2015. It supersedes BS EN 61185:2005 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee EPL/51, Transformers, inductors, magnetic components and ferrite materials.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2016.

Published by BSI Standards Limited 2016

ISBN 978 0 580 82410 4

ICS 29.100.10

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 March 2016.

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 62317-6

March 2016

ICS 29.100.10

Supersedes EN 61185:2005

English Version

Ferrite cores - Dimensions - Part 6: ETD-cores for use in power supplies (IEC 62317-6:2015)

Noyaux ferrites - Dimensions - Partie 6: Noyaux ETD
destinés à être utilisés dans des alimentations
(IEC 62317-6:2015)

Ferritkerne - Maße - Teil 6: ETD-Kerne für den Einsatz in
Stromversorgungsanwendungen
(IEC 62317-6:2015)

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

© 2016 CENELEC All rights of exploitation in any form and by any means reserved worldwide for CENELEC Members.

European foreword

The text of document 51/1105/FDIS, future edition 1 of IEC 62317-6, prepared by IEC/TC 51 "Magnetic components and ferrite materials" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62317-6:2016.

The following dates are fixed:

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document have to be withdrawn

This document supersedes EN 61185:2005.

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 62317-6:2015 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 60205:2006	NOTE	Harmonized as EN 60205:2006 (not modified).
IEC 60205:2006/A1:2009	NOTE	Harmonized as EN 60205:2006/A1:2009 (not modified).

CONTENTS

FOREWORD	3
1 Scope	5
2 Normative references	5
3 Primary standards	5
3.1 General	5
3.2 Dimensions of ETD-cores	5
3.2.1 Principal dimensions	5
3.2.2 Effective parameter and $A_{\min}$ values	6
3.3 Dimensional limits for coil formers	7
3.4 Pin locations and base outlines	8
3.5 Pin diameter	11
4 Marking	11
5 Mounting	11
Annex A (normative) Derived standards	12
Annex B (normative) Example of a standard for gauges to check the dimensions of ETD-cores meeting this primary standard	14
B.1 General	14
B.2 Procedure and requirements	14
Bibliography	15
Figure 1 – Dimensions of ETD-cores	6
Figure 2 – Essential dimensions of coil formers	7
Figure 3 – Pin locations and base outlines viewed from the upper-side of the board (see 3.4) (1 of 2)	9
Figure A.1 – Main dimensions of coil formers	13
Figure B.1 – Gauge dimensions	14
Table 1 – Dimensions of ETD-cores	6
Table 2 – Effective parameter and $A_{\min}$ values	7
Table 3 – Essential dimensions of coil formers	8
Table A.1 – Main dimensions of coil formers	13
Table B.1 – Gauge dimensions	14

INTERNATIONAL ELECTROTECHNICAL COMMISSION

FERRITE CORES – DIMENSIONS –

Part 6: ETD-cores for use in power supplies

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 62317-6 has been prepared by IEC technical committee 51: Magnetic components and ferrite materials.

This first edition cancels and replaces the second edition of IEC 61185 published in 2005. This edition constitutes a technical revision.

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

- a) Changed dimension A of ETD 54 core.