

Ferrite cores — Dimensions —

Part 8: E-cores

The European Standard EN 62317-8:2006 has the status of a British Standard

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National foreword

This British Standard was published by BSI. It is the UK implementation of EN 62317-8:2006. It is identical with IEC 62317-8:2006. It partially supersedes BS EN 62358:2004. This standard replaces Table A.1 and Table B.1 of BS EN 62358:2004.

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 EPL/51 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.

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

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Dimensions
Part 8: E-cores
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Dimensions
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This European Standard was approved by CENELEC on 2006-10-01. 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in two official versions (English and 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 Central Secretariat has the same status as the official versions.

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CENELEC

European Committee for Electrotechnical Standardization
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Foreword

The text of document 51/864/FDIS, future edition 1 of IEC 62317-8, prepared by IEC TC 51, Magnetic components and ferrite materials, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62317-8 on 2006-10-01.

This standard replaces Table A.1 and Table B.1 of EN 62358:2004. New rectangular centre leg E-cores, which have been developed in the industry, were introduced in EN 62358, and are in widespread use. This standard has been revised to specify dimensions and effective parameters for these newer rectangular centre leg E-cores.

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) | 2007-07-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2009-10-01 |

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62317-8:2006 was approved by CENELEC as a European Standard without any modification.

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FERRITE CORES – DIMENSIONS –

Part 8: E-cores

1 Scope

This part of IEC 62317 specifies the dimensions that are of importance for mechanical interchangeability for E-cores with rectangular cross-section made of ferrite, the dimensions of coil formers to be used with them, and the effective parameter values to be used in calculations involving them.

The selecting core sizes to this standard is based on the philosophy of including those sizes, which are industrial standards, either by inclusion in national standards, or by broad-based use in industry. See IEC 62317-1 for more detail concerning the philosophy of selecting core sizes to be included.

NOTE Cores covered by this standard are intended for general applications at both low and high flux densities, but they also find uses in special applications such as pulse transformers. They are generally used in pairs.

Whilst the main application of this standard is expected to be for ferrite cores, its validity for iron powder cores should not be overlooked.

Coil formers are not specified for E-cores smaller than E 8/2, which are also used in SMD assemblies.

The use of “derived” standards, which give a more detailed specification of component parts whilst still permitting compliance with this standard, is discussed in Annex A.

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 60205:2006, *Calculation of the effective parameters of magnetic piece parts*

3 Primary standards

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

3.1 Dimensions of E-cores with rectangular cross-section

3.1.1 Main dimensions

The main dimensions of E-cores with rectangular cross-section shall be as given in Table 1.

NOTE The dimensions of the cores may be checked by means of gauges, an example of which is given in Annex B. In order to facilitate production it may be necessary to use gauges having dimensions differing from those given in Annex B, although no relaxation of the requirements for the dimensions of the cores given in Table 1 is thereby permitted.

3.1.2 Effective parameter and $A_{\min}$ values

The effective parameter and $A_{\min}$ values of a pair of cores whose dimensions comply with 3.1.1 shall be as given in Table 2 (see IEC 60205, for the definitions of these parameters and their calculation; and 2.2 of IEC 60205, for the definition of $A_{\min}$).