

Ferrite cores — Standard inductance factor (A_L) and its tolerance

The European Standard EN 62358:2004 has the status of a
British Standard

ICS 29.100.10

National foreword

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 Table A.1 and Table B.1 of this standard have been replaced by BS EN 62317-8:2006.

The UK participation in its preparation was entrusted to Technical Committee EPL/51, Transformers.

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.

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English version

**Ferrite cores –
Standard inductance factor (A_L)
and its tolerance
(IEC 62358:2004)**

Noyaux de ferrite –
Inductance spécifique normalisée (A_L)
et tolérances associées
(CEI 62358:2004)

Ferritkerne –
Standard-Induktivitätsfaktor (A_L)
und dessen Toleranz
(IEC 62358:2004)

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CENELEC

European Committee for Electrotechnical Standardization
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Foreword

The text of document 51/756/FDIS, future edition 1 of IEC 62358, 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 62358 on 2004-07-01.

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) | 2005-04-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2007-07-01 |

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62358:2004 was approved by CENELEC as a European Standard without any modification.

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INTRODUCTION

The A_L value (inductance factor) and its tolerance have been specified by the users. When manufacturers wish to have an inventory for short delivery, they have to hold the products before gapping since there is no standard for the A_L value. Because of electronic commerce and the increased demand for rapid delivery of products, it will be more convenient for customers and suppliers to refer to established A_L values and tolerances. This standard has been developed to meet this demand.

As a result of the implementation of this standard, it will be easier for core suppliers and users to develop electronic components using gapped soft ferrite cores. Conventional businesses will benefit, as will new companies working in new fields such as e-commerce.

It is recommended that users specify A_L values by selecting them from this standard when possible. Manufacturers are encouraged to use the A_L values in this standard when building stocks of gapped cores for short delivery.

FERRITE CORES – STANDARD INDUCTANCE FACTOR (A_L) AND ITS TOLERANCE

1 Scope

This International Standard provides standard A_L values and its tolerances of Pot, RM, ETD, EE, EP, EL and low-profile ferrite cores.

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.

ISO 497, *Guide to the choice of series of preferred numbers and of series containing more rounded values of preferred numbers*

3 Measuring method

The method for measuring the inductance factor shall be in accordance with IEC 62044-21.

4 A_L value and its tolerance

The series of preferred numbers of the A_L value shall be selected from ISO 497-R10 series.

4.1 Tolerance

The tolerance shall be selected from Table 1, which specifies letter codes for the tolerances.

Table 1 – Tolerance versus letter code

Tolerance %	± 3	± 5	± 7	± 10	± 12	± 15	± 20
Letter code	A	J	E	K	H	L	M

4.2 EE core

The A_L value and its tolerance for EE cores shall be selected from Table 2.

4.3 ETD core

The A_L value and its tolerance for ETD cores shall be selected from Table 3.

¹ IEC 62044-2, *Cores made of soft magnetic materials – Measuring methods – Part 2: Magnetic properties at low excitation level* (under consideration)