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Irish Standard
I.S. EN 62024-2:2009

High frequency inductive components -
Electrical characteristics and
measuring methods -- Part 2: Rated
current of inductors for DC to DC
converters (IEC 62024-2:2008 (EQV))

I.S. EN 62024-2:2009

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EN 62024-2

NORME EUROPÉENNE

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January 2009

ICS 29.100.10

English version

**High frequency inductive components -
Electrical characteristics and measuring methods -
Part 2: Rated current of inductors for DC to DC converters
(IEC 62024-2:2008)**

Composants inductifs à haute fréquence -
Caractéristiques électriques
et méthodes de mesure -
Partie 2: Courant assigné
des bobines d'induction
des convertisseurs continu-continu
(CEI 62024-2:2008)

Induktive Hochfrequenz-Bauelemente -
Elektrische Eigenschaften
und Messmethoden -
Teil 2: Bemessungsstrom
von Drosselspulen für DC/DC-Wandler
(IEC 62024-2:2008)

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

Central Secretariat: avenue Marnix 17, B - 1000 Brussels

I.S. EN 62024-2:2009

EN 62024-2:2009

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Foreword

The text of document 51/937/FDIS, future edition 1 of IEC 62024-2, 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 62024-2 on 2008-12-01.

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) 2009-09-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2011-12-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62024-2:2008 was approved by CENELEC as a European Standard without any modification.

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 60068-1	- ¹⁾	Environmental testing - Part 1: General and guidance	EN 60068-1	1994 ²⁾
IEC 62025-1	- ¹⁾	High frequency inductive components - Non-electrical characteristics and measuring methods - Part 1: Fixed, surface mounted inductors for use in electronic and telecommunication equipment	EN 62025-1	2007 ²⁾

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.



INTERNATIONAL STANDARD

NORME INTERNATIONALE

High frequency inductive components – Electrical characteristics and measuring methods –

Part 2: Rated current of inductors for DC to DC converters

Composants inductifs à haute fréquence – Caractéristiques électriques et méthodes de mesure –

Partie 2: Courant assigné des bobines d'induction pour des convertisseurs continus-continus



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INTERNATIONAL STANDARD

NORME INTERNATIONALE

High frequency inductive components – Electrical characteristics and measuring methods –

Part 2: Rated current of inductors for DC to DC converters

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Partie 2: Courant assigné des bobines d'induction pour des convertisseurs continus-continus

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**HIGH FREQUENCY INDUCTIVE COMPONENTS –
ELECTRICAL CHARACTERISTICS AND MEASURING METHODS –****Part 2: Rated current of inductors for DC to DC converters**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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.
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International Standard IEC 62024-2 has been prepared IEC technical committee 51: Magnetic components and ferrite materials.

This bilingual version, published in 2009-02, corresponds to the English version.

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

FDIS	Report on voting
51/937/FDIS	51/941/RVD

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

The French version of this standard has not been voted upon.

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

A list of all parts of IEC 62024 series, under the general title *High frequency inductive components – Electrical characteristics and measuring methods*, 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.

HIGH FREQUENCY INDUCTIVE COMPONENTS – ELECTRICAL CHARACTERISTICS AND MEASURING METHODS –

Part 2: Rated current of inductors for DC to DC converters

1 Scope

This part of IEC 62024 specifies the measuring methods of the rated direct current limits for small inductors.

Standardized measuring methods for the determination of ratings enable users to accurately compare the current ratings given in various manufacturers' data books.

This standard is applicable to leaded and surface mount inductors with dimensions according to IEC 62025-1 and generally with rated current less than 22 A, although inductors with rated current greater than 22 A are available that fall within the dimension restrictions of this standard (no larger than 12 mm × 12 mm footprint approximately). These inductors are typically used in DC to DC converters built on PCB, for electric and telecommunication equipment, and small size switching power supply units.

The measuring methods are defined by the saturation and temperature rise limitations induced solely by direct current.

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 60068-1, *Environmental testing – Part 1: General and guidance*

IEC 62025-1, *High frequency inductive components – Non-electrical characteristics and measuring methods – Part 1: Fixed, surface mounted inductors for use in electronic and telecommunication equipment*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

DC saturation limited current

allowable value of DC current for which the decrease of the inductance is within the specified value

3.2

temperature rise limited current

allowable value of DC current for which the self-generation heat of the inductor results in temperature rise within the specified value

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