High frequency inductive components - Electrical characteristics and measuring methods - Part 2: Rated current of inductors for DC to DC converters

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EUROPEAN STANDARD

NORME EUROPÉENNE

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EN 62024-2

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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 continus-continus (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

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– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2011-12-01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

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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.

Publication	Year	Title	EN/HD	Year
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.

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HIGH FREQUENCY INDUCTIVE COMPONENTS – ELECTRICAL CHARACTERISTICS AND MEASURING METHODS –

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

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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