

SLOVENSKI STANDARD

SIST EN 61558-2-7:2008

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SIST EN 61558-2-7:1999

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Safety of power transformers, power supplies, reactors and similar products - Part 2-7: particular requirements and tests for transformers for toys

iTeh STANDARD PREVIEW

Sicherheit von Transformatoren, Netzgeräten, Drosseln und dergleichen - Teil 2-7: Besondere Anforderungen und Prüfungen an Transformatoren für Spielzeuge

[SIST EN 61558-2-7:2008](https://standards.itih.ai/catalog/standards/sist/b1af50f3-d50b-49be-92e0-g4b0aa2dcca/sist-en-61558-2-7-2008)

Sécurité des transformateurs, alimentations, bobines d'inductance et produits analogues - Partie 2-7: Règles particulières et essais pour transformateurs et alimentations pour jouets

Ta slovenski standard je istoveten z: EN 61558-2-7:2007

ICS:

29.180

Transformatorji. Dušilke

Transformers. Reactors

SIST EN 61558-2-7:2008

en,fr,de

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English version

**Safety of power transformers, power supplies,
reactors and similar products -
Part 2-7: Particular requirements and tests
for transformers and power supplies for toys
(IEC 61558-2-7:2007, modified)**

Sécurité des transformateurs,
alimentations, bobines d'inductance
et produits analogues -
Partie 2-7: Règles particulières
et essais pour transformateurs
et alimentations pour jouets
(CEI 61558-2-7:2007, modifiée)

Sicherheit von Transformatoren,
Netzgeräten, Drosseln und dergleichen -
Teil 2-7: Besondere Anforderungen
und Prüfungen an Transformatoren
für Spielzeuge
(IEC 61558-2-7:2007, modifiziert)

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This European Standard was approved by CENELEC on 2007-09-01. 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 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 96/254/FDIS, future edition 2 of IEC 61558-2-7, prepared by IEC TC 96, Transformers, reactors, power supply units and similar products for low voltage up to 1 100 V, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61558-2-7 on 2007-09-01 with inclusion of a common modification intended to align this European Standard with EN 62115:2005.

This European Standard supersedes EN 61558-2-7:1997 + A11:2002.

The main changes consist of updating EN 61558-2-7:1997, in accordance with EN 61558-1:2005, and adding power supplies to the scope.

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) 2008-06-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2010-09-01

This Part 2-7 is intended to be used in conjunction with EN 61558-1:2005.

This Part 2-7 supplements or modifies the corresponding clauses in EN 61558-1, so as to convert that publication into the European Standard: *Particular requirements and tests for transformers and power supplies for toys.*

When a particular subclause of Part 1 is not mentioned in this Part 2-7, that subclause applies as far as is reasonable. Where this standard states "addition", "modification" or "replacement", the relevant text of Part 1 is to be adapted accordingly.

In this Part 2-7, the following print types are used:

- requirements proper: in roman type;
- *test specifications: in italic type;*
- explanatory matter: in smaller roman type.

In the text of this standard, the words in **bold** are defined in Clause 3.

Subclauses additional to those in Part 1 are numbered starting from 101; supplementary annexes are entitled AA, BB, etc.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61558-2-7:2007 was approved by CENELEC as a European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS

Replace subclause 20.103 by:

20.103 The operating means of control devices, if any, shall not be affixed to the **transformers**.

Annex ZA
(normative)

**Normative references to international publications
with their corresponding European publications**

Addition to Annex ZA of EN 61558-1:

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60227-1	– ¹⁾	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 1: General requirements	–	–
IEC 60245-1	– ²⁾	Rubber insulated cables - Rated voltages up to and including 450/750 V - Part 1: General requirements	–	–

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1) Undated reference. HD 21.1 S4:2002, *Cables of rated voltages up to and including 450/750 V and having thermoplastic insulation - Part 1: General requirements*, which is related to, but not directly equivalent with, IEC 60227-1, applies instead.

2) Undated reference. HD 22.1 S4:2002, *Cables of rated voltages up to and including 450/750 V and having cross-linked insulation - Part 1: General requirements*, which is related to, but not directly equivalent with, IEC 60245-1, applies instead.

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Second edition
2007-01

PUBLICATION GROUPEE DE SÉCURITÉ
GROUP SAFETY PUBLICATION

**Sécurité des transformateurs, alimentations,
bobines d'inductance et produits analogues –**

**Partie 2-7:
Règles particulières et essais pour transformateurs
et alimentations pour jouets**

(standards.iteh.ai)

**Safety of power transformers, power supplies,
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**Part 2-7:
Particular requirements and tests for transformers
and power supplies for toys**

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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*Pour prix, voir catalogue en vigueur
For price, see current catalogue*

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**SAFETY OF POWER TRANSFORMERS, POWER SUPPLIES,
REACTORS AND SIMILAR PRODUCTS –****Part 2-7: Particular requirements and tests
for transformers and power supplies for toys**

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.
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International standard IEC 61558-2-7 has been prepared by IEC technical committee 96: Small power transformers, reactors, power supply units and similar products.

This second edition cancels and replaces the first edition published in 1997. It constitutes a technical revision. The main changes consist of updating this Part 2-7, in accordance with Part 1, edition 2, and adding power supplies to the scope.

This Part 2-7 has the status of a group safety publication in accordance with IEC Guide 104: The preparation of safety publications and the use of basic safety publications and group safety publications (1997).

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

FDIS	Report on voting
96/254/FDIS	96/267/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.

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

This Part 2-7 is intended to be used in conjunction with the last edition of IEC 61558-1 and its amendments. It is based on the second edition (2005) of that standard.

This Part 2-7 supplements or modifies the corresponding clauses in IEC 61558-1, so as to convert that publication into the IEC standard: *Particular requirements and tests for transformers and power supplies for toys*.

The list of all the parts of the IEC 61558 series, under the general title *Safety of power transformers, power supply units and similar products*, can be found on the IEC website.

When a particular subclause of Part 1 is not mentioned in this Part 2-7, that subclause applies as far as is reasonable. Where this standard states "addition", "modification" or "replacement", the relevant text of Part 1 is to be adapted accordingly.

In this Part 2-7, the following print types are used:

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In the text of this standard, the words in **bold** are defined in Clause 3.

Subclauses additional to those in Part 1 are numbered starting from 101; supplementary annexes are entitled AA, BB, etc.

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.

SAFETY OF POWER TRANSFORMERS, POWER SUPPLIES REACTORS AND SIMILAR PRODUCTS –

Part 2-7: Particular requirements and tests for transformers and power supplies for toys

1 Scope

Replacement:

This part of IEC 61558 deals with safety aspects of **transformers for toys** and **power supplies** incorporating **transformers for toys** such as electrical, thermal and mechanical safety.

This Part 2-7 is applicable to **transformers for toys** and **power supplies** incorporating both **transformers for toys** and **electronic circuits**. This Part 2-7 is not applicable to external circuits and their components intended to be connected to the input terminals, output terminals or socket-outlets of the **transformers** and **power supplies**.

This Part 2-7 applies to **stationary** and **portable**, single-phase, air-cooled (natural or forced), **transformers for toys** and **power supplies** incorporating **transformers for toys**, having a **rated supply voltage** not exceeding 250 V a.c., a **rated supply and internal operating frequency** not exceeding 500 Hz, a **rated output** not exceeding 200 VA and a **rated output current** not exceeding 10 A.

This Part 2-7 is applicable to **independent transformers** and **transformers for specific use**.

This Part 2-7 is applicable to **dry-type transformers for toys**. The windings may be encapsulated or non-encapsulated.

The **no-load output voltage** does not exceed 33 V a.c. for **transformers for toys** and **power supplies** incorporating **transformers for toys**, or 46 V ripple-free d.c. for **power supplies** incorporating **transformers for toys**, and the **rated output voltage** does not exceed 24 V a.c. for **transformers** and **power supplies**, or 33 V ripple-free d.c. for **power supplies**.

In general, this Part 2-7 does not take into consideration children playing with the **transformers for toys** and **power supplies** incorporating **transformers for toys**.

NOTE 1 Attention is drawn to the following:

- for **transformers for toys** and **power supplies** incorporating **transformers for toys** intended to be used in vehicles, on board ships, and aircraft, additional requirements (from other applicable standards, national rules, etc.) may be necessary;
- measures to protect the **enclosure** and the components inside the enclosure against external influences such as fungus, vermin, termites, solar-radiation, and icing should also be considered;
- the different conditions for transportation, storage, and operation of the **transformers for toys** and **power supplies** incorporating **transformers for toys** should also be considered;