



SLOVENSKI STANDARD

SIST EN 61558-2-23:2001

01-oktober-2001

Safety of power transformers, power supply units and similar devices - Part 2-23: Particular requirements for transformers for construction sites (IEC 61558-2-23:2000)

Safety of power transformers, power supply units and similar devices -- Part 2-23: Particular requirements for transformers for construction sites

Sicherheit von Transformatoren, Netzgeräten und Dergleichen -- Teil 2-23: Besondere Anforderungen an Transformatoren für Baustellen

Sécurité des transformateurs, blocs d'alimentation et dispositifs analogues -- Partie 2-23: Règles particulières pour les transformateurs pour chantiers

Ta slovenski standard je istoveten z: EN 61558-2-23:2000

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29.180	Transformatorji. Dušilke	Transformers. Reactors
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SIST EN 61558-2-23:2001

en

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EUROPEAN STANDARD

EN 61558-2-23

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2000

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English version

Safety of power transformers, power supply units and similar devices
Part 2-23: Particular requirements for transformers for construction sites
(IEC 61558-2-23:2000)

Sécurité des transformateurs, blocs
d'alimentation et dispositifs analogues
Partie 2-23: Règles particulières pour
les transformateurs pour chantiers
(CEI 61558-2-23:2000)

Sicherheit von Transformatoren,
Netzgeräten und Dergleichen
Teil 2-23: Besondere Anforderungen
an Transformatoren für Baustellen
(IEC 61558-2-23:2000)

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This European Standard was approved by CENELEC on 2000-08-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and 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 96/144/FDIS, future edition 1 of IEC 61558-2-23, prepared by IEC TC 96, Small power transformers, reactors and power supply units: Safety requirements, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61558-2-23 on 2000-08-01.

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) 2001-05-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2003-08-01

This part 2-23 is to be used in conjunction with EN 61558-1:1997, Safety of power transformers, power supply units and similar – Part 1: General requirements and tests.

This part 2-23 supplements or modifies the corresponding clauses of EN 61558-1.

Where a particular clause or subclause of part 1 is not mentioned in this part 2-23, that clause or subclause applies as far as is reasonable. Where this part 2-23 states "addition", "modification" or "replacement", the relevant text of part 1 is to be adapted accordingly.

In this standard, the following print types are used:

- requirement: in roman type,
- *test specifications: in italic type,*
- notes: in smaller roman type.

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

Subclauses, tables and figures which are additional to those in part 1 are numbered starting from 101.

Annexes designated "normative" are part of the body of the standard.

In this standard, annex ZA is normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61558-2-23:2000 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Addition:

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-2-27	1987	Basic environmental testing procedures Part 2: Tests - Test Ea and guidance: Shock	EN 60068-2-27	1993
IEC 60364-7-704 (mod)	1989	Electrical installations of buildings Part 7: Requirements for special installations or locations - Section 704: Construction and demolition site installations	HD 384.7.704 S1	2000
IEC 60439-4	1990	Low-voltage switchgear and controlgear assemblies Part 4: Particular requirements for assemblies for construction sites (ACS)	EN 60439-4	1991

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GROUP SAFETY PUBLICATION

**Sécurité des transformateurs, blocs d'alimentation
et dispositifs analogues –**

**Partie 2-23:
Règles particulières pour les transformateurs
pour chantiers**

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and similar devices –**

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**Part 2-23:
Particular requirements for transformers
for construction sites**

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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For price, see current catalogue*

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**SAFETY OF POWER TRANSFORMERS, POWER SUPPLY UNITS
AND SIMILAR DEVICES –**
Part 2-23: Particular requirements for transformers for construction sites

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international cooperation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. 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. The 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 the 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 National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61558-2-23 has been prepared by IEC technical committee 96: Small power transformers, reactors and power supply units: Safety requirements.

It 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
96/144/FDIS	96/148/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 3.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next revision.

This part 2-23 is intended to be used in conjunction with IEC 61558-1. It was established on the basis of the first edition (1997) of that standard.

This part 2-23 supplements or modifies the corresponding clauses in IEC 61558-1, so as to convert that publication into the IEC standard: Particular requirements for transformers for construction sites.

When a particular subclause of part 1 is not mentioned in this part 2-23, 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 standard, 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 the standard the words in **bold** are defined in clause 3.

Subclauses which are 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 2004-12. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or [SIST EN 61558-2-23:2001](https://standards.iteh.ai/catalog/standards/sist/020c7953-11a8-4ffa-b27d-1b61ec16f5d5/sist-en-61558-2-23-2001)
- amended.

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SAFETY OF POWER TRANSFORMERS, POWER SUPPLY UNITS AND SIMILAR DEVICES –

Part 2-23: Particular requirements for transformers for construction sites

1 Scope

Replacement:

This International Standard deals with all aspects of safety such as electrical, thermal and mechanical.

This part of IEC 61558 applies to stationary or portable single-phase or poly-phase air-cooled (natural or forced) independent or associated, **isolating** or **safety isolating transformers** intended for use on construction sites, having a **rated supply voltage** not exceeding 1 000 V a.c., and a **rated frequency** not exceeding 500 Hz.

The **rated output** should not exceed:

- 25 kVA for single-phase transformers;
- 40 kVA for poly-phase transformers.

Isolating transformers for construction sites should have a **no-load output voltage** and a **rated output voltage** exceeding 50 V a.c. and not exceeding 250 V a.c.

Safety isolating transformers for construction sites should have a **no-load output voltage** and a **rated output voltage** not exceeding 50 V a.c.

NOTE This standard is applicable to transformers for the supply of electricity in locations as specified in IEC 60364-7-704. The latter also specifies the protection by using an earthed midpoint or starpoint of the output winding.

Transformers for construction sites are to be used when required by the installation rules or by the appliance specification for protection purposes.

When the transformers are incorporated into **low-voltage switchgear and controlgear assemblies for construction sites** as specified in IEC 60439-4, the additional requirements of IEC 60439-4 will apply to the assembly.

This standard is applicable to **dry-type transformers**. The windings may be encapsulated or non-encapsulated.

NOTE 1 For transformers filled with liquid dielectric or pulverized material, such as sand, additional requirements are under consideration.

NOTE 2 Attention is drawn to the fact that

- for transformers intended to be used in tropical countries, special requirements may be necessary;
- in locations where special environmental conditions prevail, particular requirements may be necessary.

This standard also applies to transformers incorporating electronic circuits. This standard does not apply to external circuits and their components intended to be connected to the input and output terminals or socket-outlets of the transformer.