SLOVENSKI STANDARD
SIST EN 61558-2-6:1999

01-julij-1999

Safety of power transformers, power supply units and similar - Part 2-6: Particular requirements for safety isolating transformers for general use (IEC 61558-2-6:1997)

Safety of power transformers, power supply units and similar -- Part 2-6: Particular requirements for safety isolating transformers for general use

Sicherheit von Transformatoren, Netzgeräten und dergleichen -- Teil 2-6: Besondere Anforderungen an Sicherheitstransformatoren für allgemeine Anwendungen

Sécurité des transformateurs, blocs d'alimentation et analogues -- Partie 2-6: Règles particulières pour les transformateurs de sécurité pour usage général

Ta slovenski standard je istoveten z: **EN 61558-2-6:1997**

ICS:

29.180	Transformatorji. Dušilke	Transformers. Reactors

SIST EN 61558-2-6:1999 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61558-2-6

November 1997

ICS 29.180

Partly supersedes EN 60742:1995

Descriptors: Protective transformers, safety requirements, detail specifications, characteristics, ability to withstand short circuit, overload protection, temperature rise, mechanical strength, insulation resistance

English version

Safety of power transformers, power supply units and similar Part 2-6: Particular requirements for safety isolating transformers for general use (IEC 61558-2-6:1997)

Sécurité des transformateurs, blocs d'alimentation et analogues
Partie 2-6: Règles particulières pour les transformateurs de sécurité pour usage général
(CEI 61558-2-6:1997)

Sicherheit von Transformatoren, Netzgeräten und dergleichen
Teil 2: Besondere Anforderungen an Sicherheitstransformatoren für allgemeine Anwendungen
(IEC 61558-2-6:1997)

This European Standard was approved by CENELEC on 1997-07-01. 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

Ref. No. EN 61558-2-6:1997 E

Foreword

The text of document 96/50/FDIS, future edition 1 of IEC 61558-2-6, prepared by IEC TC 96, Small power transformers, reactors and power supply units and special transformers, reactors and power supply units: safety requirements, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61558-2-6 on 1997-07-01.

This European Standard supersedes chapter III, section 1 of EN 60742:1995.

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) 1998-02-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2000-08-01

For products which have complied with chapter III, section 1 of EN 60742:1995 before 2000–08-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2001-08-01.

This part 2-6 of EN 61558 is to be used in conjunction with EN 61558-1:1997.

This part 2 supplements or modifies the corresponding clauses of EN 61558-1, so as to convert it into the European Standard "Particular requirements for safety isolating transformers for general use".

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

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

There are no special national conditions (snc) causing a deviation from this European Standard other than those listed in annex ZA of EN 61558-1.

Endorsement notice

The text of the International Standard IEC 61558-2-6:1997 was approved by CENELEC as a European Standard without any modification.

NORME INTERNATIONALE

INTERNATIONAL STANDARD

CEI
IEC
61558-2-6

Première édition
First edition
1997-02

PUBLICATION GROUPÉE DE SÉCURITÉ
GROUP SAFETY PUBLICATION

Sécurité des transformateurs, blocs d'alimentation et analogues –

Partie 2:
Règles particulières pour les transformateurs de sécurité pour usage général

Safety of power transformers, power supply units and similar –

Part 2:
Particular requirements for safety isolating transformers for general use

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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SAFETY OF POWER TRANSFORMERS, POWER SUPPLY UNITS AND SIMILAR –

Part 2: Particular requirements for safety isolating transformers for general use

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 co-operation 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 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 61558-2-6 has been prepared by IEC technical committee 96: Small power transformers, reactors and **power supply units** and special transformers, reactors and **power supply units**: Safety requirements.

It has the status of a group safety publication in accordance with IEC Guide 104: Guide for the drafting of safety standards, and the role of Committees with safety pilot functions and safety group functions (1984).

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

FDIS	Report on voting
96/50/FDIS	96/73/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 part 2 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 supplements or modifies the corresponding clauses in IEC 61558-1, so as to convert that publication into the IEC standard: *Particular requirements for safety isolating transformers for general use.*

When a particular subclause of part 1 is not mentioned in this part 2, 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.

This Standard replaces Chapter III, Section 1 of IEC 742.

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.

SAFETY OF POWER TRANSFORMERS, POWER SUPPLY UNITS AND SIMILAR –

Part 2: Particular requirements for safety isolating transformers for general use

1 Scope

Replacement:

This part 2 of IEC 61558 applies to stationary or portable, single-phase or polyphase, air-cooled **safety isolating transformers**, associated or otherwise, having a **rated supply voltage** not exceeding 1000 V a.c. and **rated frequency** not exceeding 500 Hz, the **rated output** not exceeding:

– 10 kVA for single-phase transformers;
– 16 kVA for polyphase transformers.

This standard is also applicable to **safety isolating transformers** without limitation of the **rated output;** however such transformers are considered as special transformers and are subjected to an agreement between the purchaser and the supplier.

The **no-load output voltage** and the **rated output voltage** does not exceed:

50 V a.c. r.m.s. and/or
120 V ripple-free d.c.

between conductors or between any conductor and earth.

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

2 Normative references

This clause of part 1 is applicable.

3 Definitions

This clause of part 1 is applicable.

4 General requirements

This clause of part 1 is applicable.

5 General notes on tests

This clause of part 1 is applicable.

6 Ratings

This clause of part 1 is applicable except as follows:

Addition:

6.101 The **rated output voltage** shall not exceed 50 V a.c. and/or 120 V ripple-free d.c.

For a.c. the preferred values for the **rated output voltage** are: 6 V, 12 V, 24 V, 42 V and 48 V.

6.102 The **rated output** shall not exceed 10 kVA for single-phase transformers and 16 kVA for polyphase transformers except for special safety isolating transformers.

Preferred values for the rated output are:

– 25 VA, 40 VA, 63 VA, 100 VA, 160 VA, 250 VA, 400 VA, 630 VA, 1000 VA, 1600 VA, 2500 VA, 4000 VA, 6300 VA, 10 000 VA for single-phase transformers;

– 630 VA, 1000 VA, 1600 VA, 2500 VA, 4000 VA, 6300 VA, 10 000 VA and 16 000 VA for polyphase transformers.

6.103 The **rated frequency** shall not exceed 500 Hz.

6.104 The **rated supply voltage** shall not exceed 1000 V a.c.

7 Classification

This clause of part 1 is applicable.

8 Marking and other information

This clause of part 1 is applicable except as follows:

8.11 *Addition:*

 F	**Fail-safe safety isolating transformer**
	**Non-short-circuit-proof safety isolating transformer**
	**Short-circuit-proof safety isolating transformer** (inherently or non-inherently)

Addition:

8.101 For transformers intended for connection to the supply by means of a cable or cord and a plug, an instruction sheet or the like shall be delivered with the transformer, drawing the attention of the user to the fact that the output circuit(s) shall be installed and protected in accordance with national wiring rules.