SLOVENSKI STANDARD
SIST EN 61558-2-13:2000

01-junij-2000

Safety of power transformers, power supply units and similar devices - Part 2-13: Particular requirements for auto-transformers for general use

Safety of power transformers, power supply units and similar devices -- Part 2-13: Particular requirements for auto-transformers for general use

Sicherheit von Transformatoren, Netzgeräten und dergleichen -- Teil 2-13: Besondere Anforderungen an Spartransformatoren für allgemeine Anwendungen

Sécurité des transformateurs, blocs d'alimentation et analogues -- Partie 2-13: Règles particulières pour les autotransformateurs pour usage général

Ta slovenski standard je istoveten z: **EN 61558-2-13:2000**

ICS:

29.180	Transformatorji. Dušilke	Transformers. Reactors

SIST EN 61558-2-13:2000 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61558-2-13

January 2000

ICS 29.180

English version

Safety of power transformers, power supply units and similar devices Part 2-13: Particular requirements for auto-transformers for general use (IEC 61558-2-13:1999)

Sécurité des transformateurs, blocs d'alimentation et analogues
Partie 2-13: Règles particulières pour les autotransformateurs pour usage général
(CEI 61558-2-13:1999)

Sicherheit von Transformatoren, Netzgeräten und dergleichen
Teil 2-13: Besondere Anforderungen an Spartransformatoren für allgemeine Anwendungen
(IEC 61558-2-13:1999)

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 61558-2-13:2000 E

Foreword

The text of document 96/131/FDIS, future edition 1 of IEC 61558-2-13, 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 61558-2-13 on 1999-12-01.

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) 2000-09-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2002-12-01

This part 2-13 is intended to be used in conjunction with EN 61558-1:1997.

This part 2-13 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 2-13, that clause or subclause applies as far as is reasonable. Where this part 2-13 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: 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 or figures which are additional to those in part 1 are numbered starting from 101.

Endorsement notice

The text of the International Standard IEC 61558-2-13:1999 was approved by CENELEC as a European Standard without any modification.

NORME INTERNATIONALE

INTERNATIONAL STANDARD

CEI
IEC
61558-2-13

Première édition
First edition
1999-10

PUBLICATION GROUPÉE DE SÉCURITÉ
GROUP SAFETY PUBLICATION

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

Partie 2-13:
Règles particulières pour les autotransformateurs pour usage général

Safety of power transformers, power supply units and similar devices –

Part 2-13:
Particular requirements for auto-transformers for general use

International Electrotechnical Commission 3, rue de Varembé Geneva, Switzerland
Telefax: +41 22 919 0300 e-mail: inmail@iec.ch IEC web site http://www.iec.ch

Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE M

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

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 2-13: Particular requirements for auto-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 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 61558-2-13 has been prepared by IEC technical committee 96: Small power transformers, reactors and power supply units: Safety requirements.

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.

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
96/131/FDIS	96/137/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.

The committee has decided that this publication remains valid until 2005-06.

At this date, in accordance with the committee's decision, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

This part 2-13 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 2-13 supplements or modifies the corresponding clauses in IEC 61558-1, so as to convert that publication into the IEC standard: Particular requirements for auto-transformers.

This standard replaces Chapter III of IEC 60989.

When a particular subclause of part 1 is not mentioned in this part 2-13, 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.

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

Part 2-13: Particular requirements for auto-transformers for general use

1 Scope

Replacement:

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

This part 2-13 of IEC 61558 applies to stationary or portable, single-phase or polyphase, air-cooled (natural or forced), independent or associated **auto-transformers**, having a **rated supply voltage** not exceeding 1 000 V a.c., a **rated frequency** not exceeding 500 Hz.

The **core power** does not exceed:

- 1 kVA for single-phase **auto-transformers**;
- 5 kVA for polyphase **auto-transformers**.

The **rated output** does not exceed:

- 20 kVA for single-phase **auto-transformers**;
- 100 kVA for polyphase **auto-transformers**.

This standard is also applicable to **auto-transformers** having a **core power** up to 40 kVA, however such transformers are considered as special transformers and are subjected to an agreement between the purchaser and the supplier. Such special **auto-transformers** have no limitation for the **rated output**.

The **no-load output voltage** and the **rated output voltage** do not exceed 1 000 V a.c. or 1 415 V ripple-free d.c.

For **independent auto-transformers**, the **no-load output voltage** and the **rated output voltage** are not less than 50 V a.c. or 120 V ripple free d.c.

This standard is applicable to transformers where no insulation between circuits is required by the installation rules or by the equipment specifications.

NOTE 1 – Normally, the transformers are intended to be associated with equipment to provide voltages different from the supply voltage for the functional requirements of the equipment. The safety insulation may be provided by other features of the equipment, such as the **body**.

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

NOTE 2 – For transformers filled with liquid dielectric or pulverised material, such as sand, requirements are under consideration.

NOTE 3 – Attention is drawn to the fact that:

– for transformers intended to be used in vehicles or on board ships or aircraft, additional requirements may be necessary;

– 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.