

SLOVENSKI STANDARD

SIST EN 61558-2-3:2000

01-september-2000

Safety of power transformers, power supply units and similar devices - Part 2-3: Particular requirements for ignition transformers for gas and oil burners (IEC 61558-2-3:1999)

Safety of power transformers, power supply units and similar devices -- Part 2-3: Particular requirements for ignition transformers for gas and oil burners

Sicherheit von Transformatoren, Netzgeräten und dergleichen -- Teil 2-3: Besondere Anforderungen an Zündtransformatoren für Gas- und Ölbrenner

Sécurité des transformateurs, blocs d'alimentation et dispositifs analogues -- Partie 2-3: Règles particulières pour les transformateurs d'allumage pour brûleurs à gaz et combustibles liquides

Ta slovenski standard je istoveten z: EN 61558-2-3:2000

ICS:

29.180 Transformatorji. Dušilke Transformers. Reactors

SIST EN 61558-2-3:2000 en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 61558-2-3:2000

<https://standards.iteh.ai/catalog/standards/sist/2c20f023-6f88-4489-a90f-8106436d6200/sist-en-61558-2-3-2000>

English version

Safety of power transformers, power supply units and similar devices
Part 2-3: Particular requirements for ignition transformers for gas and
oil burners
(IEC 61558-2-3:1999)

Sécurité des transformateurs, blocs
d'alimentation et dispositifs analogues
Partie 2-3: Règles particulières pour les
transformateurs d'allumage pour
brûleurs à gaz et combustibles liquides
(CEI 61558-2-3:1999)

Sicherheit von Transformatoren,
Netzgeräten und dergleichen
Teil 2-3: Besondere Anforderungen
an Zündtransformatoren für Gas- und
Ölbrenner
(IEC 61558-2-3:1999)

This European Standard was approved by CENELEC on 1999-12-01. 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 96/132/FDIS, future edition 1 of IEC 61558-2-3, 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 61558-2-3 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 2-3 is intended to be used in conjunction with EN 61558-1:1997.

This part 2-3 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 2-3, that clause or subclause applies as far as is reasonable. Where this part 2-3 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 61558-2-3:1999 was approved by CENELEC as a European Standard without any modification.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC

61558-2-3

Première édition
First edition
1999-10

PUBLICATION GROUPEE DE SECURITE
GROUP SAFETY PUBLICATION

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

**Partie 2-3:
Règles particulières pour les transformateurs
d'allumage pour brûleurs à gaz et combustibles
liquides**

(standards.iteh.ai)

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

**Part 2-3:
Particular requirements for ignition transformers
for gas and oil burners**

© IEC 1999 Droits de reproduction réservés — Copyright - all rights reserved

Aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photo-copie et les microfilms, sans l'accord écrit de l'éditeur.

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Electrotechnical Commission
Telefax: +41 22 919 0300

3, rue de Varembe Geneva, Switzerland
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

N

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

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

**Part 2-3: Particular requirements for ignition transformers
for gas and oil burners**

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 61558-2-3 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).

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 edition.

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

FDIS	Report on voting
96/132/FDIS	96/138/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.

This part 2-3 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 2-3 supplements or modifies the corresponding clauses in IEC 61558-1, so as to convert that publication into the IEC standard: *Particular requirements for ignition transformers for gas and oil burners*.

This standard replaces the section 2 of chapter II of IEC 60989.

When a particular subclause of part 1 is not mentioned in this part 2-3, 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 or figures 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 this publication remains valid until 2003-12. At this date, in accordance with the committee's decision, the publication will be

- reconfirmed; [SIST EN 61558-2-3:2000](https://standards.iteh.ai/catalog/standards/sist/en-61558-2-3-2000)
- withdrawn; <https://standards.iteh.ai/catalog/standards/sist/2c20f023-6f88-4489-a90f-8106436d6200/sist-en-61558-2-3-2000>
- replaced by a revised edition, or
- amended.

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

Part 2-3: Particular requirements for ignition transformers for gas and oil burners

1 Scope

Replacement:

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

This part of IEC 61558 applies to **fixed** single-phase air-cooled (natural or forced) **associated transformers** (incorporated or not) used in the ignition system of gas and oil burners, having a **rated supply voltage** not exceeding 1 000 V a.c. and a **rated frequency** not exceeding 500 Hz. The **rated output current** does not exceed 500 mA a.c.

NOTE 1 Due to the national safety law, in Japan the **rated output current** does not exceed 50 mA.

The **no-load output voltage** and the **rated no-load output voltage** does not exceed 15 000 V a.c.

This standard applies to transformers where **double** or **reinforced insulation** between circuits is not required by the installation rules or by the appliance specification.

NOTE 2 The transformers are intended to be associated with equipment to provide voltages different from the supply voltage for the functional requirement of the equipment. The safety insulation may be provided (or completed) 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 3 For transformers filled with liquid dielectric or pulverised material, such as sand, additional requirements are under consideration.

NOTE 4 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.

NOTE 5 Electronic **ignition transformers** are under consideration.

2 Normative references

This clause of part 1 is applicable except as follows:

Addition:

ISO 3864: 1984, *Safety colours and safety signs*

3 Definitions

This clause of part 1 is applicable except as follows:

Addition:

3.1.101

ignition transformer

fixed single-phase air-cooled **associated transformer** which is part of the equipment which, from a high potential, generates an arc between two electrodes which are connected to the high voltage output of the transformer. This transformer needs to be used with a control unit being part of the ignition equipment.

3.1.102

rated duty factor

time interval during which the transformer operates, expressed as a percentage of the duration of the whole cycle

3.1.103

functional insulation

insulation between conductive parts, which is necessary only for the proper functioning of the equipment

iTeh STANDARD PREVIEW

3.5.4 *Replacement:*

rated output current

output current at **rated supply voltage** and **rated frequency** when the **output winding** is short-circuited, assigned to the transformer by the manufacturer

<https://standards.iteh.ai/catalog/standards/sist/2c20f023-6f88-4489-a90f-8106436d6200/sist-en-61558-2-3-2000>

3.5.5 *Replacement:*

rated output voltage

output voltage when the transformer is connected to **rated supply voltage** at **rated frequency** under no-load conditions

4 General requirements

This clause of part 1 is applicable.

5 General notes on tests

This clause of part 1 is applicable.

6 Rating

This clause of part 1 is applicable except as follows:

Addition:

6.101 The **rated output voltage** shall not exceed 15 000 V a.c.

6.102 Void

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