

Trafode, reaktorite, elektritoiteplokkide ja nende kombinatsioonide ohutus. Osa 2-3: Erinõuded gaasi- ja õlipõletite süüdetrafodele ning nende katsetamine

Safety of transformers, reactors, power supply units and combinations thereof - Part 2-3: Particular requirements and tests for ignition transformers for gas and oil burners

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 61558-2-3:2010 sisaldab Euroopa standardi EN 61558-2-3:2010 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 31.10.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 13.08.2010.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 61558-2-3:2010 consists of the English text of the European standard EN 61558-2-3:2010.

This standard is ratified with the order of Estonian Centre for Standardisation dated 31.10.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 13.08.2010.

The standard is available from Estonian standardisation organisation.

ICS 29.180

Standardite reprodutseerimis- ja levitamisoigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:
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English version

Safety of transformers, reactors, power supply units and combinations thereof -

Part 2-3: Particular requirements and tests for ignition transformers for gas and oil burners
(IEC 61558-2-3:2010)

Sécurité des transformateurs, bobines d'inductance, blocs d'alimentation et des combinaisons de ces éléments -
Partie 2-3: Règles particulières et essais pour les transformateurs d'allumage pour brûleurs à gaz et combustibles liquides
(CEI 61558-2-3:2010)

Sicherheit von Transformatoren, Drosseln, Netzgeräten und entsprechende Kombinationen -
Teil 2-3: Besondere Anforderungen und Prüfungen an Zündtransformatoren für Gas- und Ölbrenner
(IEC 61558-2-3:2010)

This European Standard was approved by CENELEC on 2010-07-01. 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, Bulgaria, Croatia, 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

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Foreword

The text of document 96/357/FDIS, future edition 2 of IEC 61558-2-3, 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 61558-2-3 on 2010-07-01.

This European Standard supersedes EN 61558-2-3:2000.

The main changes consist of updating this part in accordance with EN 61558-1:2005.

This part has the status of a group safety publication in accordance with IEC Guide 104:1997, *The preparation of safety publications and the use of basic safety publications and group safety publications*.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

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) 2011-04-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2013-07-01

This part is intended to be used in conjunction with the latest edition of EN 61558-1 and its amendments. It is based on the second edition (2005) of that standard.

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

A list of all parts of the EN 61558 series, under the general title: *Safety of transformers, reactors, power supply units and combinations thereof*, can be found on the CENELEC website.

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.

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

In this part, the following print types are used:

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

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

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

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive 2006/95/EC.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61558-2-3:2010 was approved by CENELEC as a European Standard without any modification.

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Annex ZA
(normative)**Normative references to international publications
with their corresponding European publications**

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

Annex ZA of Part 1 is applicable, except as follows:

Addition:

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61558-1	2005	Safety of power transformers, power supplies, reactors and similar products - Part 1: General requirements and tests	EN 61558-1 + corr. August	2005 2006
ISO 3864-1	2002	Graphical symbols - Safety colours and safety - signs - Part 1: Design principles for safety signs in workplaces and public areas		-

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SAFETY OF TRANSFORMERS, REACTORS, POWER SUPPLY UNITS AND COMBINATIONS THEREOF –

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

1 Scope

Replacement:

This part of IEC 61558 deals with the safety of **ignition transformers** for gas and oil burners. **Ignition transformers** incorporating **electronic circuits** are also covered by this standard.

NOTE 1 Safety includes electrical, thermal, mechanical and chemical aspects.

Unless otherwise specified, from here onward, the term **transformer** covers **ignition transformers** for gas and oil burners.

This part applies to **fixed** single-phase air-cooled (natural or forced) **associated dry-type transformers** used in the ignition systems of gas and oil burners. The windings may be encapsulated or non-encapsulated.

The **rated supply voltage** does not exceed 1 000 V a.c., and the **rated supply frequency** and the **internal operational frequency** do not exceed 500 Hz.

The **rated short-circuit output current** does not exceed 500 mA a.c.

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

This part is not applicable to external circuits and their components intended to be connected to the input and output terminals or socket-outlets of the **transformers**.

Transformers covered by this part are used in applications where **double or reinforced insulation** between circuits is not required by the installation rules or by the end product standard.

NOTE 2 Attention is drawn to the following:

- for **transformers** 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** should also be considered;
- additional requirements in accordance with other appropriate standards and national rules may be applicable to **transformers** intended for use in special environments.

NOTE 3 Future technological development of **transformers** may necessitate a need to increase the upper limit of the frequencies, until then this part may be used as a guidance document.

2 Normative references

This clause of Part 1 is applicable, except as follows:

Addition:

IEC 61558-1 :2005, *Safety of power transformers, power supplies, reactors and similar products – Part 1: General requirements and tests*

ISO 3864-1:2002, *Graphical symbols – Safety colours and safety signs – Part 1: Design principles for safety sign in workplaces and public areas – Part 1: Design principles for safety signs in workplaces and public areas*

3 Terms and definitions

This clause of Part 1 is applicable, except as follows:

Addition:

3.1.101

ignition transformer

fixed single-phase air-cooled **associated transformer** within an ignition system generating an arc between two electrodes connected to the high voltage output of the **transformer**. This **transformer** is intended to be used with a control unit built-in in the ignition system

3.1.102

rated duty factor

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

3.5.101

rated short-circuit output current

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

3.5.102

rated no-load output voltage

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

Replacement:

3.5.4 not applicable.

3.5.5 not applicable.

4 General requirements

This clause of Part 1 is applicable.

5 General notes on tests

This clause of Part 1 is applicable.