

Safety of power transformers, power supplies, reactors and similar products —

Part 2-2: Particular requirements and tests for control transformers and power supplies incorporating control transformers

The European Standard EN 61558-2-2:2007 has the status of a
British Standard

ICS 29.180

National foreword

This British Standard was published by BSI. It is the UK implementation of EN 61558-2-2:2007. It is identical with IEC 61558-2-2:2007. It supersedes BS EN 61558-2-2:1998 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PEL/96, Small transformers.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

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English version

**Safety of power transformers, power supplies,
reactors and similar products -
Part 2-2: Particular requirements and tests for control transformers
and power supplies incorporating control transformers
(IEC 61558-2-2:2007)**

Sécurité des transformateurs,
alimentations, bobines d'inductance
et produits analogues -
Partie 2-2: Règles particulières
et essais pour les transformateurs
de commande et les alimentations
incorporant les transformateurs
de commande
(CEI 61558-2-2:2007)

Sicherheit von Transformatoren,
Netzgeräten, Drosseln und dergleichen -
Teil 2-2: Besondere Anforderungen
und Prüfungen an Steuertransformatoren
und Netzgeräten,
die Steuertransformatoren enthalten
(IEC 61558-2-2:2007)

This European Standard was approved by CENELEC on 2007-02-01. 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, 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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 96/253/FDIS, future edition 2 of IEC 61558-2-2, prepared by IEC TC 96, Small power transformers, reactors, power supply units and similar products, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61558-2-2 on 2007-02-01.

This European Standard supersedes EN 61558-2-2:1998 + corrigendum February 1998.

The main changes consist of updating this Part 2-2 in accordance with EN 61558-1:2005, and adding power supplies to the scope.

This Part 2-2 is intended to be used in conjunction with the latest edition of EN 61558-1 and its amendments. It is based on EN 61558-1:2005.

This Part 2-2 supplements or modifies the corresponding clauses in EN 61558-1, so as to convert that publication into the European standard: *Particular requirements and tests for control transformers and power supplies incorporating control transformers*.

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

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) | 2007-11-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2010-02-01 |

In this Part 2-2, 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 this Part 2-2, the words in **bold** are defined in Clause 3.

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

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61558-2-2:2007 was approved by CENELEC as a European Standard without any modification.

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SAFETY OF POWER TRANSFORMERS, POWER SUPPLIES, REACTORS AND SIMILAR PRODUCTS –

Part 2-2: Particular requirements and tests for control transformers and power supplies incorporating control transformers

1 Scope

Replacement:

This part of IEC 61558 deals with safety aspects of **control transformers** and **power supplies** incorporating **control transformers** such as electrical, thermal and mechanical safety.

This Part 2-2 is applicable to **control transformers** and **power supplies** incorporating both **control transformers** and **electronic circuits**. This Part 2-2 is not applicable to external circuits and their components intended to be connected to the input terminals, output terminals or socket-outlets of the **transformer** and **power supplies**.

This Part 2-2 does not apply to **transformers** covered by IEC 60076-11.

This Part 2-2 applies to **stationary** or **portable**, single-phase or poly-phase, air-cooled (natural or forced), **independent** or **associated control transformers** and **power supplies** incorporating a **control transformer**, having a **rated supply voltage** not exceeding 1 000 V a.c. and **rated supply** and **internal operating frequency** not exceeding 500 Hz.

The **rated thermal output** does not exceed:

- 25 kVA for single-phase **control transformers** and **power supplies** incorporating **control transformers**;
- 40 kVA for poly-phase **control transformers** and **power supplies** incorporating **control transformers**.

This Part 2-2 is applicable to **control transformers** and **power supplies** incorporating **control transformers** without limitation of the **rated output** subject to an agreement between the purchaser and the manufacturer.

This Part 2-2 is applicable to **dry-type transformers**. The windings may be encapsulated or non-encapsulated.

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

For **independent control transformers** and independent **power supplies** incorporating **control transformers**, the **no-load output voltage** and / or the **rated output voltage** is not less than 50 V a.c., or 120 V ripple free d.c.