



BSI Standards Publication

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

Part 2-10: Particular requirements and tests for separating transformers with high insulation level and separating transformers with output voltages exceeding 1 000 V

National foreword

This British Standard is the UK implementation of EN IEC 61558-2-10:2024. It is identical to IEC 61558-2-10:2024. It supersedes BS EN 61558-2-10:2014, which is withdrawn.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 committee manager.

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Amendments/corrigenda issued since publication

Date	Text affected
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English Version

Safety of transformers, reactors, power supply units and combinations thereof - Part 2-10: Particular requirements and tests for separating transformers with high insulation level and separating transformers with output voltages exceeding 1 000 V (IEC 61558-2-10:2024)

Sécurité des transformateurs, bobines d'inductance, blocs d'alimentation et des combinaisons de ces éléments - Partie 2-10 : Exigences particulières et essais pour les transformateurs d'isolement à enroulements séparés à niveau d'isolement élevé et pour les transformateurs d'isolement à enroulements séparés à tensions secondaires supérieures à 1 000 V (IEC 61558-2-10:2024)

Sicherheit von Transformatoren, Drosseln, Netzgeräten und entsprechenden Kombinationen - Teil 2-10: Besondere Anforderungen und Prüfungen für Netztransformatoren mit hohem Isolationspegel und Netztransformatoren mit Ausgangsspannungen über 1 000 V (IEC 61558-2-10:2024)

This European Standard was approved by CENELEC on 2024-07-12. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.



European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document 96/589/FDIS, future edition 2 of IEC 61558-2-10, prepared by IEC/TC 96 "Transformers, reactors, power supply units, and combinations thereof" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61558-2-10:2024.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2025-04-12 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2027-07-12 document have to be withdrawn

This document supersedes EN 61558-2-10:2014 and all of its amendments and corrigenda (if any).

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

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 61558-2-10:2024 was approved by CENELEC as a European Standard without any modification.

The endorsement notice of EN IEC 61558-1:2019 applies, except as follows.

Addition:

In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 60076-11:2018	NOTE	Approved as EN IEC 60076-11:2018 (not modified)
IEC 60204-1:2016	NOTE	Approved as EN 60204-1:2018
IEC 61050:1991	NOTE	Approved as EN 61050:1992
IEC 61050:1991/A1:1994	NOTE	Approved as EN 61050:1992/A1:1995
IEC 61347-2-10:2000	NOTE	Approved as EN 61347-2-10:2001 (not modified)
IEC 61347-2-10:2000/A1:2008	NOTE	Approved as EN 61347-2-10:2001/A1:2009 (not modified)
IEC 61558 series	NOTE	Approved as EN 61558 series
IEC 61558-2-16:2021	NOTE	Approved as EN IEC 61558-2-16:— ¹ (not modified)
IEC 62477-1:2022	NOTE	Approved as EN IEC 62477-1:2023 (not modified)

¹ to be published, Stage at the time of publication: FprEN IEC 61558-2-16:2021.

Annex ZA
(normative)

**Normative references to international publications
with their corresponding European publications**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Annex ZA of EN IEC 61558-1:2019 applies, except as follows.

Addition:

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61558-1	2017	Safety of transformers, reactors, power supply units and combinations thereof - Part 1: General requirements and tests	EN IEC 61558-1	2019

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**SAFETY OF TRANSFORMERS, REACTORS,
POWER SUPPLY UNITS AND COMBINATIONS THEREOF –****Part 2-10: Particular requirements and tests for separating
transformers with high insulation level and separating
transformers with output voltages exceeding 1 000 V**

FOREWORD

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IEC 61558-2-10 has been prepared by IEC technical committee 96: Transformers, reactors, power supply units and combinations thereof. It is an International Standard.

This second edition cancels and replaces the first edition published in 2014. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) adjustment of structure and references in accordance with IEC 61558-1:2017;
- b) overvoltage categories I, II, III and IV for clearances and dielectric strength tests are included;

c) clearances for homogenous field conditions deleted.

The text of this International Standard is based on the following documents:

Draft	Report on voting
96/589/FDIS	96/595/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

It has the status of a group safety publication in accordance with IEC Guide 104.

This International Standard is to be used in conjunction with IEC 61558-1:2017.

This document supplements or modifies the corresponding clauses in IEC 61558-1:2017, so as to convert that publication into the IEC standard: *Particular requirements and tests for separating transformers with high insulation level and separating transformers with output voltages exceeding 1 000 V*.

A list of all parts in the IEC 61558 series published under the general title *Safety of transformers, reactors, power supply units and combinations thereof*, can be found on the IEC 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 this document states "*addition*", "*modification*" or "*replacement*", the relevant text of IEC 61558-1:2017 is to be adapted accordingly.

In this document, 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 document, the words in **bold** are defined in Clause 3.

Subclauses, notes, figures and tables additional to those in IEC 61558-1:2017 are numbered starting from 101; supplementary annexes are entitled AA, BB, etc.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.