

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

Part 2-20: Particular requirements for small reactors

The European Standard EN 61558-2-20:2000 has the status of a
British Standard

ICS 29.180

National foreword

This British Standard is the official English language version of EN 61558-2-20:2000. It is identical with IEC 61558-2-20:2000.

The UK participation in its preparation was entrusted to Technical Committee PEL/96, Small transformers, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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From 1 January 1997, all IEC publications have the number 60000 added to the old number. For instance, IEC 27-1 has been renumbered as IEC 60027-1. For a period of time during the change over from one numbering system to the other, publications may contain identifiers from both systems.

Cross-references

Attention is drawn to the fact that CEN and CENELEC Standards normally include an annex which lists normative references to international publications with their corresponding European publications. The British Standards which implement these international or European publications may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

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This British Standard, having been prepared under the direction of the Electrotechnical Sector Committee, was published under the authority of the Standards Committee and comes into effect on 15 June 2001

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English version

Safety of power transformers, power supply units and similar devices
Part 2-20: Particular requirements for small reactors
(IEC 61558-2-20:2000)

Sécurité des transformateurs, blocs
d'alimentation et dispositifs analogues
Partie 2-20: Règles particulières pour
les petites bobines d'inductance
(CEI 61558-2-20:2000)

Sicherheit von Transformatoren,
Netzgeräten und Dergleichen
Teil 2-20: Besondere Anforderungen
an Kleindrosseln
(IEC 61558-2-20:2000)

This European Standard was approved by CENELEC on 2000-08-01. 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

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Foreword

The text of document 96/146/FDIS, future edition 1 of IEC 61558-2-20, 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 61558-2-20 on 2000-08-01.

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) 2001-05-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2003-08-01

This part 2-20 is to be used in conjunction with EN 61558-1:1997, Safety of power transformers, power supply units and similar -- Part 1: General requirements and tests.

This part 2-20 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 2-20, that clause or subclause applies as far as is reasonable. Where this part 2-20 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:

- requirement: 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 which are additional to those in part 1 are numbered starting from 101.

Endorsement notice

The text of the International Standard IEC 61558-2-20:2000 was approved by CENELEC as a European Standard without any modification.

In the official version, for annex S, Bibliography, the following notes have to be added for the standards indicated:

- IEC 60289 NOTE: Harmonized as EN 60289:1994 (modified).
 - IEC 60920 NOTE: Harmonized as EN 60920:1991 (not modified).
 - IEC 60922 NOTE: Harmonized as EN 60922:1997 (not modified).
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SAFETY OF POWER TRANSFORMERS, POWER SUPPLY UNITS AND SIMILAR DEVICES –

Part 2-20: Particular requirements for small reactors

1 Scope

Replacement:

This part of IEC 61558 applies to stationary or portable, single-phase or poly-phase, air-cooled (natural or forced) general purpose small **reactors**, including alternating current, premagnetised and current compensated **reactors**, independent or associated, having a **rated supply voltage** not exceeding 1 000 V a.c. or d.c. and **rated frequency** not exceeding 1 MHz, the **rated power** not exceeding

- 2 kVAR a.c. (2 kW d.c.) for single-phase **reactors**;
- 10 kVAR a.c. (10 kW d.c.) for poly-phase **reactors**.

This standard is also applicable to small **reactors** without limitation of the **rated power**; however, such small **reactors** are considered as special **reactors** and are subjected to an agreement between the purchaser and the supplier.

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

This standard does not apply to

- **reactors** covered by IEC 60289;
- ballast for tubular fluorescent lamps covered by IEC 60920;
- ballast for discharge lamps (excluding tubular fluorescent lamps) covered by IEC 60922.

NOTE 1 For small **reactors** filled with liquid dielectric or pulverised material such as sand, additional requirements are under consideration.

NOTE 2 In locations where special environmental conditions prevail, particular requirements may be necessary.

NOTE 3 Normally, small **reactors** are intended to be associated with equipment for functional requirements of the equipment or requirements by the installation rules or by other appliance specifications.

NOTE 4 Small **reactors** incorporating electronic circuits and components are also covered by this standard.

NOTE 5 The safety insulation may be provided (or completed) by other parts or features of the equipment, such as the **body**.

NOTE 6 Small **reactors** for particular applications will in the future be covered by complementary normative annexes.