



Handläggande organ

**Svenska Elektriska Kommissionen, SEK**

Fastställd

1998-01-30

Utgåva

1

Sida

1 (1+12)

Ingår i

SEK Översikt 96

**Reg 427 02 27**

SIS FASTSTÄLLER OCH UTGER SVENSK STANDARD SAMT SÄLJER NATIONELLA, EUROPEISKA OCH INTERNATIONELLA STANDARDPUBLIKATIONER ©

## **Transformatorer, strömförsörjningsdon och liknande – Säkerhet –**

### **Del 2-17: Särskilda fordringar på transformatorer för switchade nätaggregat**

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

*Part 2-17: Particular requirements for transformers for switch mode power supplies*

Som svensk standard gäller europastandarden EN 61558-2-17:1997. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61558-2-17:1997.

#### **Nationellt förord**

Europastandarden EN 61558-2-17:1997

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 61558-2-17, First edition, 1997 - Safety of power transformers, power supply units and similar - Part 2-17: Particular requirements for transformers for switch mode power supplies**

utarbetad inom International Electrotechnical Commission, IEC.

Standarden skall användas tillsammans med SS-EN 61558-1, utgåva 1, 1997.

ICS 29.180

Descriptors: Transformers, electric power supply, protective transformers, isolating transformers, safety requirements, detail specifications, characteristics, ability to withstand short circuit, overload protection, temperature rise, mechanical strength, insulation resistance

English version

**Safety of power transformers, power supply units and similar  
Part 2-17: Particular requirements for transformers  
for switch mode power supplies  
(IEC 61558-2-17:1997)**

Sécurité des transformateurs, blocs  
d'alimentation et analogues  
Partie 2-17: Règles particulières pour les  
transformateurs pour alimentation à  
découpage  
(CEI 61558-2-17:1997)

Sicherheit von Transformatoren,  
Netzgeräten und dergleichen  
Teil 2: Besondere Anforderungen an  
Transformatoren für Schaltnetzteile  
(IEC 61558-2-17:1997)

This European Standard was approved by CENELEC on 1997-07-01. 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, 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 96/52/FDIS, future edition 1 of IEC 61558-2-17, prepared by IEC TC 96, Small power transformers, reactors and power supply units and special transformers, reactors and power supply units: safety requirements, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61558-2-17 on 1997-07-01.

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) 1998-02-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2002-08-01

For products which have complied with the relevant national standard before 2002-08-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2003-08-01.

This part 2-17 of EN 61558 is to be used in conjunction with EN 61558-1:1997.

This part 2 supplements or modifies the corresponding clauses of EN 61558-1, so as to convert it into the European Standard "Particular requirements for transformers for switch mode power supplies".

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

Subclauses which are additional to those in part 1 are numbered starting from 101.

There are no special national conditions (snc) causing a deviation from this European Standard other than those listed in annex ZA of EN 61558-1.

---

## **Endorsement notice**

The text of the International Standard IEC 61558-2-17:1997 was approved by CENELEC as a European Standard without any modification.

---

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

### Part 2: Particular requirements for transformers for switch mode power supplies

#### 1 Scope

##### *Replacement:*

This part 2 of IEC 61558 applies to associated power transformers for **switch mode power supplies**, single-phase or polyphase, air-cooled:

- **separating transformers;**
- **isolating transformers;**
- **safety isolating transformers,**

having a **rated supply voltage** not exceeding 1000 V a.c. and a **rated frequency** of 500 Hz to 1 MHz, the **rated output** not exceeding:

- 10 kVA for single-phase transformers;
- 16 kVA for polyphase transformers.

NOTE 1 – For higher frequencies, this standard may be used as a guide.

The **no-load output voltage** or the **rated output voltage** do not exceed:

- 1000 V a.c. or 1 415 V ripple-free d.c for **separating transformers;**
- 500 V a.c. or 708 V ripple-free d.c for **isolating transformers.**

NOTE 2 – For **isolating transformers**, the **rated output voltage** may be up to 1000 V a.c. or 1415 V ripple-free d.c. in accordance with the national wiring rules or designed for special purposes.

- 50 V a.c. r.m.s. and/or 120 V ripple-free d.c for **safety isolating transformers.**

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

#### NOTES

3 For transformers filled with liquid dielectric or pulverized material, such as sand, additional requirements are under consideration.

4 In locations where special environmental conditions prevail, particular requirements may be necessary in accordance with IEC 364-5-51.

5 For higher output no-load voltages, additional requirements are necessary but this section may be used as a guide.

#### 2 Normative references

This clause of part 1 is applicable.