



Handläggande organ

Svenska Elektriska Kommissionen, SEK

Fastställt

2000-12-22

Utgåva

1

Sida

1 (1+43)

Ingår i

SEK Översikt 38

Reg 427 08 01

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Mättransformatorer – Del 1: Strömtransformatorer

*Instrument transformers –
Part 1: Current transformers*

Som svensk standard gäller europastandarden EN 60044-1:1999. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60044-1:1999.

Nationellt förord

Europastandarden EN 60044-1:1999

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60044-1, First edition, 1996 - Instrument transformers - Part 1: Current transformers**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare utgiven svensk standard SS 427 08 11, utgåva 2, 1993, gäller ej fr o m 2002-01-01.

ICS 17.220.20

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Upplysningar om **sakinnehållet** i standarden lämnas av SEK.
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Prisgrupp R

Tryckt i februari 2001

EUROPEAN STANDARD

EN 60044-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 1999

ICS 17.220.20

Supersedes HD 553 S2:1993

English version

Instrument transformers
Part 1: Current transformers
(IEC 60044-1:1996, modified)

Transformateurs de mesure
Partie 1: Transformateurs de courant
(CEI 60044-1:1996, modifiée)

Meßwandler
Teil 1: Stromwandler
(IEC 60044-1:1996, modifiziert)

This European Standard was approved by CENELEC on 1999-08-01. 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

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

Foreword

The text of the International Standard IEC 60044-1:1996, prepared by IEC TC 38, Instrument transformers, together with common modifications prepared by the Technical Committee CENELEC TC 38X, Instrument transformers, was submitted to the formal vote and was approved by CENELEC as EN 60044-1 on 1999-08-01.

This European Standard supersedes HD 553 S2:1993.

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) 2000-08-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2002-01-01

Annexes designated "normative" are part of the body of the standard.

Annexes designated "informative" are given for information only.

In this standard, annexes A and ZA are normative and annex B is informative.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60044-1:1996 was approved by CENELEC as a European Standard with agreed common modifications as given below.

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60028	1925	International standard of resistance for copper	-	-
IEC 60038 (mod)	1983	IEC standard voltages ¹⁾	HD 472 S1	1989
IEC 60050-321	1986	International electrotechnical vocabulary Chapter 321: Instrument transformers	-	-
IEC 60060-1 + corr. March	1989 1990	High-voltage test techniques Part 1: General definitions and test requirements	HD 588.1 S1	1991
IEC 60071-1	1993	Insulation co-ordination Part 1: Definitions, principles and rules	EN 60071-1	1995
IEC 60085	1984	Thermal evaluation and classification of electrical insulation	HD 566 S1	1990
IEC 60121	1960	Recommendation for commercial annealed aluminium electrical conductor wire	-	-
IEC 60270	1981	Partial discharge measurements	-	-
IEC 60567	1992	Guide for the sampling of gases and of oil from oil-filled electrical equipment and for the analysis of free and dissolved gases	EN 60567	1992
IEC 60599	1978	Interpretation of the analysis of gases in transformers and other oil-filled electrical equipment in service	HD 397 S1 ²⁾	1979
IEC 60721	series	Classification of environmental conditions	EN 60721 HD 478.2	series series

1) The title of HD 472 S1 is: *Nominal voltages for low voltage public electricity supply systems*.

2) HD 397 S2 is superseded by EN 60599:1999, which is based on IEC 60599:1999.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60815	1986	Guide for the selection of insulators in respect of polluted conditions	-	-

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INSTRUMENT TRANSFORMERS –

Part 1: Current transformers

1 General

1.1 Scope

This part of IEC 44 applies to newly manufactured current transformers for use with electrical measuring instruments and electrical protective devices at frequencies from 15 Hz to 100 Hz.

Although the requirements relate basically to transformers with separate windings, they are also applicable, where appropriate, to autotransformers.

Clause 11 covers the requirements and tests, in addition to those in clauses 3 to 10, that are necessary for current transformers for use with electrical measuring instruments.

Clause 12 covers the requirements and tests, in addition to those in clauses 3 to 10, that are necessary for current transformers for use with electrical protective relays, and in particular for forms of protection in which the prime requirement is the maintenance of accuracy up to several times the rated current.

For certain protective systems, where the current transformer characteristics are dependant on the overall design of the protective equipment (for example high-speed balanced systems and earth-fault protection in resonant earthed networks), additional requirements may be necessary.

Current transformers intended for both measurement and protection shall comply with all the clauses of this standard.

1.2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 44. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 44 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 28: 1925, *International standard of resistance for copper*

IEC 38: 1983, *IEC standard voltages*

IEC 50(321): 1986, *International Electrotechnical Vocabulary – Chapter 321: Instrument transformers*

IEC 60-1: 1989, *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 71-1: 1993, *Insulation co-ordination – Part 1: Definitions, principles and rules*

IEC 85: 1984, *Thermal evaluation and classification of electrical insulation*

IEC 121: 1960, *Recommendation for commercial annealed aluminium electrical conductor wire*

IEC 270: 1981, *Partial discharge measurements*

IEC 567: 1992, *Guide for the sampling of gases and of oil from oil-filled electrical equipment and for the analysis of free and dissolved gases*

IEC 599: 1978, *Interpretation of the analysis of gases in transformers and other oil-filled electrical equipment in service*

IEC 721: *Classification of environmental conditions*

IEC 815: 1986, *Guide for the selection of insulators in respect of polluted conditions*

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