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Mättransformatorer – Del 5: Kondensatorspänningstransformatorer

*Instrument transformers –
Part 5: Capacitor voltage transformers*

Som svensk standard gäller europastandarden EN 60044-5:2004. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60044-5:2004.

Nationellt förord

Europastandarden EN 60044-5:2004

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60044-5, First edition, 2004 - Instrument transformers -
Part 5: Capacitor voltage transformers**

utarbetad inom International Electrotechnical Commission, IEC.

Kondensatorspänningstransformatorer omfattades av den tidigare svenska standarden SS 427 08 13.

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EUROPEAN STANDARD

EN 60044-5

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2004

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Supersedes HD 554 S1:1992

English version

Instrument transformers
Part 5: Capacitor voltage transformers
(IEC 60044-5:2004)

Transformateurs de mesure
Partie 5: Transformateurs condensateurs
de tension
(CEI 60044-5:2004)

Messwandler
Teil 5: Kapazitive Spannungswandler
(IEC 60044-5:2004)

This European Standard was approved by CENELEC on 2004-06-01. 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, 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 38/320/FDIS, future edition 1 of IEC 60044-5, prepared by IEC TC 38, Instrument transformers, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60044-5 on 2004-06-01.

This European Standard, together with EN 60044-2:1999, supersedes HD 554 S1:1992.

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) 2005-03-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2007-06-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60044-5:2004 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60721	NOTE	Harmonized in EN 60721 series (not modified).
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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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 Where 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	- ¹⁾	International standard of resistance for copper	-	-
IEC 60038 (mod)	- ¹⁾	IEC standard voltages ²⁾	HD 472 S1 + corr. February	1989 ³⁾ 2002
IEC 60044-2 (mod)	- ¹⁾	Instrument transformers Part 2: Inductive voltage transformers	EN 60044-2	1999 ³⁾
IEC 60050-321	- ¹⁾	International electrotechnical vocabulary - Chapter 321: Instrument transformers	-	-
IEC 60050-436	- ¹⁾	Chapter 436: Power capacitors	-	-
IEC 60050-601	- ¹⁾	Chapter 601: Generation, transmission and distribution of electricity - General	-	-
IEC 60050-604	- ¹⁾	Chapter 604: Generation, transmission and distribution of electricity - Operation	-	-
IEC 60060-1	- ¹⁾	High-voltage test techniques Part 1: General definitions and test requirements	HD 588.1 S1	1991 ³⁾
IEC 60071-1	- ¹⁾	Insulation co-ordination Part 1: Definitions, principles and rules	EN 60071-1	1995 ³⁾
IEC 60085	- ¹⁾	Thermal evaluation and classification of electrical insulation	HD 566 S1	1990 ³⁾
IEC 60270	- ¹⁾	High-voltage test techniques - Partial discharge measurements	EN 60270	2001 ³⁾
IEC 60358	- ¹⁾	Coupling capacitors and capacitor dividers	HD 597 S1 + corr. March	1992 ³⁾ 1992

¹⁾ Undated reference.

²⁾ The title of HD 472 S1 is: Nominal voltages for low-voltage public electricity supply systems.

³⁾ Valid edition at date of issue.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60481	- ¹⁾	Coupling devices for power line carrier systems	-	-
IEC 60815	- ¹⁾	Guide for the selection of insulators in respect of polluted conditions	-	-
IEC 62155 (mod)	- ¹⁾	Hollow pressurized and unpressurized ceramic and glass insulators for use in electrical equipment with rated voltages greater than 1 000 V	EN 62155	2003 ³⁾
CISPR 18-2	- ¹⁾	Radio interference characteristics of overhead power lines and high-voltage equipment - Part 2: Methods of measurement and procedure for determining limits	-	-

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INSTRUMENT TRANSFORMERS –

Part 5: Capacitor voltage transformers

1 Scope

This part of IEC 60044 applies to new single-phase capacitor voltage transformers connected between line and ground for system voltages $U_m \geq 72,5$ kV at power frequencies from 15 Hz to 100 Hz. They are intended to supply a low voltage for measurement, control and protective functions.

The capacitor voltage transformer can be equipped with or without carrier-frequency accessories for power line carrier-frequency (PLC) application at carrier frequencies from 30 kHz to 500 kHz.

This standard replaces IEC 60186 regarding capacitor voltage transformers.

Three standards formed the basis for this IEC 60044-5 standard:

- IEC 60044-2, concerning inductive voltage transformers;
- IEC 60358, concerning coupling capacitors and capacitor dividers;
- IEC 60481, concerning coupling devices for power line carrier (PLC) systems.

The measurement application includes both indication measuring and revenue measuring.

NOTE Diagrams of capacitor voltage transformer to which this standard applies are given in Figures A.1 and A.2.

2 Normative references

The following referenced documents are indispensable for the application 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.

IEC 60028, *International standard of resistance for copper*

IEC 60038, *IEC standard voltages*

IEC 60044-2, *Instrument transformers – Part 2: Inductive voltage transformers*

IEC 60050-321:1986, *International Electrotechnical Vocabulary (IEV) – Chapter 321: Instrument transformers*

IEC 60050-436:1990, *International Electrotechnical Vocabulary (IEV) – Chapter 436: Power capacitors*

IEC 60050-601:1985, *International Electrotechnical Vocabulary (IEV) – Chapter 601: Generation, transmission and distribution of electricity – General*

IEC 60050-604:1987, *International Electrotechnical Vocabulary (IEV) – Chapter 604: Generation, transmission and distribution of electricity – Operation*

IEC 60060-1, *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 60071-1, *Insulation co-ordination – Part 1: Definitions, principles and rules*

IEC 60085, *Thermal evaluation and classification of electrical insulation*

IEC 60270, *High-voltage test techniques – Partial discharge measurements*

IEC 60358:1990, *Coupling capacitors and capacitor dividers*

IEC 60481, *Coupling devices for power line carrier systems*

IEC 60815, *Guide for the selection of insulators in respect of polluted conditions*

IEC 62155, *Hollow pressurized and unpressurized ceramic and glass insulators for use in electrical equipment with rated voltages greater than 1 000 V*

CISPR 18-2, *Radio interference characteristics of overhead power lines and high-voltage equipment – Part 2: Methods of measurement and procedure for determining limits*

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