SVENSK STANDARD SS-EN 60507

Fastställd	Utgåva	Sida	Ansvarig kommitté
2014-08-20	2	1 (1+40)	SEK TK 36

Isolatorer – Isolatorer av keramiskt material eller glas för växelspänning över 1000 V – Provning vid artificiell nedsmutsning

Artificial pollution tests on high-voltage ceramic and glass insulators to be used on a.c. systems

Som svensk standard gäller europastandarden EN 60507:2014. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60507:2014.

Nationellt förord

Europastandarden EN 60507:2014

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **IEC 60507, Third edition, 2013 - Artificial pollution tests on high-voltage ceramic and glass insulators to be used on a.c. systems**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 60507, utgåva 1, 1993, gäller ej fr 2017-01-17.

ICS 29.080.10

Denna standard är fastställd av SEK Svensk Elstandard,
som också kan lämna upplysningar om **sakinnehållet** i standarden.
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Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a säkerhet, prestanda, dokumentation, utförande och skötsel av elprodukter, elanläggningar och metoder. Genom att utforma sådana standarder blir säkerhetskraven tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

SEK är Sveriges röst i standardiseringsarbetet inom elområdet

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Stora delar av arbetet sker internationellt

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Standardiseringsarbetet inom SEK är organiserat i referensgrupper bestående av ett antal tekniska kommittéer som speglar hur arbetet inom IEC och CENELEC är organiserat.

Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

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Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60507

March 2014

ICS 29.080.10

Supersedes EN 60507:1993

English version

Artificial pollution tests on high-voltage ceramic and glass insulators to be used on a.c. systems

(IEC 60507:2013)

Essais sous pollution artificielle des isolateurs haute tension en céramique et en verre destinés aux réseaux à courant alternatif
(CEI 60507:2013)

Fremdschichtprüfungen an Hochspannungs-Isolatoren aus Keramik und Glas zur Anwendung in Wechselspannungssystemen
(IEC 60507:2013)

CENELEC

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 60507:2014 E

SEK Svensk Elstandard

Foreword

The text of document 36/337/FDIS, future edition 3 of IEC 60507, prepared by IEC/TC 36 "Insulators" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60507:2014.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2014-10-17
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2017-01-17

This document supersedes EN 60507:1993.

EN 60507:2014 includes the following significant technical changes with respect to EN 60507:1993:

a) Corrections and the addition of explanatory material;
b) The addition of Clause 4.4.2 on atmospheric correction;
c) The change of the upper limit of conductivity of water to 0.1 S/m; and
d) The extension to UHV voltages.

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

Endorsement notice

The text of the International Standard IEC 60507:2013 was approved by CENELEC as a European Standard without any modification.

Annex ZA
(normative)
Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

Publication	Year	Title	EN/HD	Year
IEC 60060-1	-	High-voltage test techniques - Part 1: General definitions and test requirements	EN 60060-1	-
IEC 60071-1	-	Insulation co-ordination - Part 1: Definitions, principles and rules	EN 60071-1	-
IEC/TS 60815-1	-	Selection and dimensioning of high-voltage insulators intended for use in polluted conditions - Part 1: Definitions, information and general principles	-	-
IEC/TS 60815-2	-	Selection and dimensioning of high-voltage insulators intended for use in polluted conditions - Part 2: Ceramic and glass insulators for a.c. systems	-	-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ARTIFICIAL POLLUTION TESTS ON HIGH-VOLTAGE CERAMIC AND GLASS INSULATORS TO BE USED ON A.C. SYSTEMS

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60507 has been prepared by IEC technical committee 36: Insulators.

This third edition cancels and replaces the second edition published in 1991. This third edition constitutes a technical revision.

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

a) Corrections and the addition of explanatory material;
b) The addition of Clause 4.3.2 on atmospheric correction;
c) The change of the upper limit of conductivity of water to 0.1 S/m; and
d) The extension to UHV voltages.

The text of this standard is based on the following documents:

FDIS	Report on voting
36/337/FDIS	36/342/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

ARTIFICIAL POLLUTION TESTS ON HIGH-VOLTAGE CERAMIC AND GLASS INSULATORS TO BE USED ON A.C. SYSTEMS

1 Scope

This International Standard is applicable for the determination of the power frequency withstand characteristics of ceramic and glass insulators to be used outdoors and exposed to polluted atmospheres, on a.c. systems with the highest voltage of the system greater than 1 000 V.

These tests are not directly applicable to polymeric insulators, to greased insulators or to special types of insulators (insulators with semiconducting glaze or covered with any organic insulating material).

The object of this International Standard is to prescribe procedures for artificial pollution tests applicable to insulators for overhead lines, substations and traction lines and to bushings

It may also be applied to hollow insulators with suitable precautions to avoid internal flashover. In applying these procedures to apparatus incorporating hollow insulators, the relevant technical committees should consider their effect on any internal equipment and the special precautions which may be necessary.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

IEC/TS 60815-1, *Selection and dimensioning of high-voltage insulators intended for use in polluted conditions – Part 1: Definitions, information and general principles*

IEC/TS 60815-2, *Selection and dimensioning of high-voltage insulators intended for use in polluted conditions – Part 2: Ceramic and glass insulators for a.c. systems*

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