EESTI STANDARD EVS-EN 60507:2002

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

EESTI STANDARDIKESKUS

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 60507:2002 sisaldab Euroopa standardi EN 60507:1993 ingliskeelset teksti.	This Estonian standard EVS-EN 60507:2002 consists of the English text of the European standard EN 60507:1993.
Standard on kinnitatud Eesti Standardikeskuse 18.12.2002 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 18.12.2002 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

ICS 29.080.10

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60507

May 1993

UDC 621.315.62.025.027.5/.8 : 620.193.27

Descriptors: High-voltage insulators, artificial pollution tests, salt fog method, solid layer methods

English version

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

(IEC 507 : 1991)

Essais sous pollution artificielle des isolateurs pour haute tension destinés aux réseaux à courant alternatif
(CEI 507 : 1991)

Fremdschichtprüfungen an Hochspannungs-Isolatoren zur Anwendung in Wechselspannungssytemen
(IEC 507 : 1991)

This European Standard was approved by CENELEC on 1992-12-09. 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, 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 CENELEC questionnaire procedure, performed for finding out whether or not the International Standard IEC 507 : 1991 could be accepted without textual changes, has shown that no common modifications were necessary for the acceptance as European Standard.

The reference document was submitted to the CENELEC members for formal vote and was approved by CENELEC as EN 60507 on 9 December 1992.

The following dates were fixed:

- latest date of publication of an identical national standard (dop) 1993-12-01
- latest date of withdrawal of conflicting national standards (dow) 1993-12-01

For products which have complied with the relevant national standard before 1993-12-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 1998-12-01.

Annexes designated 'normative' are part of the body of the standard. In this standard, annex ZA is normative.

CONTENTS

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

SECTION ONE - GENERAL

1 Scope

This 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 ranging from 1 000 V up to 765 kV.

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

2 Object

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

3 Definitions

For the purpose of this standard, the following definitions apply.

3.1 *Test voltage*

The r.m.s. value of the voltage with which the insulator is continuously energized throughout the test.

3.2 *Short-circuit current (I_{sc}) of the testing plant*

The r.m.s. value of the current delivered by the testing plant when the test object is short-circuited at the test voltage.

3.3 *Specific creepage distance (L_s) of an insulator*

The overall creepage distance L of an insulator divided by the product of the test voltage and $\sqrt{3}$; it is generally expressed in mm/kV.

3.4 *Form factor of an insulator (F)*

The form factor is determined from the insulator dimensions. For graphical estimation of the form factor, the reciprocal value of the insulator circumference ($1/p$) is plotted versus the partial creepage distance l counted from the end of the insulator up to the point reckoned.