SVENSK STANDARD SS-EN 61466-1

Fastställd	Utgåva	Sida	Ansvarig kommitté
2016-10-12	2	1 (1+24)	SEK TK 36

© Copyright SEK. Reproduction in any form without permission is prohibited.

Isolatorer – Kedjeisolatorer av komposit för friledningar med systemspänning över 1000 V – Del 1: Hållfasthetsklasser och armaturer

Composite string insulator units for overhead lines with a nominal voltage greater than 1 000 V – Part 1: Standard strength classes and end fittings

Som svensk standard gäller europastandarden EN 61466-1:2016. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61466-1:2016.

Nationellt förord

Europastandarden EN 61466-1:2016

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **IEC 61466-1, Second edition, 2016 - Composite string insulator units for overhead lines with a nominal voltage greater than 1 000 V - Part 1: Standard strength classes and end fittings**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 61466-1, utgåva 1, 1997, gäller ej fr o m 2019-06-22.

ICS 29.080.10; 29.240.20

Denna standard är fastställd av SEK Svensk Elstandard,
som också kan lämna upplysningar om **sakinnehållet** i standarden.
Postadress: Box 1284, 164 29 KISTA
Telefon: 08 - 444 14 00.
E-post: sek@elstandard.se. Internet: www.elstandard.se

Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

Genom att utforma sådana standarder blir säkerhetsfordringar 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

SEK Svensk Elstandard svarar för standardiseringen inom elområdet i Sverige och samordnar svensk medverkan i internationell och europeisk standardisering. SEK är en ideell organisation med frivilligt deltagande från svenska myndigheter, företag och organisationer som vill medverka till och påverka utformningen av tekniska regler inom elektrotekniken.

SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

Stora delar av arbetet sker internationellt

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

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.

Var med och påverka!

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.

SEK Svensk Elstandard
Box 1284
164 29 Kista
Tel 08-444 14 00
www.elstandard.se

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61466-1

July 2016

ICS 29.080.10; 29.240.20

Supersedes EN 61466-1:1997

English Version

Composite string insulator units for overhead lines with a nominal voltage greater than 1000 V - Part 1: Standard strength classes and end fittings (IEC 61466-1:2016)

Éléments de chaîne d'isolateurs composites pour lignes aériennes de tension nominale supérieure à 1 000 V - Partie 1: Classes mécaniques et armatures d'extrémité normalisées
(IEC 61466-1:2016)

Verbund-Kettenisolatoren für Freileitungen mit einer Nennspannung über 1000 V - Teil 1: Genormte Festigkeitsklassen und Endarmaturen
(IEC 61466-1:2016)

This European Standard was approved by CENELEC on 2016-06-22. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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

© 2016 CENELEC All rights of exploitation in any form and by any means reserved worldwide for CENELEC Members.

Ref. No. EN 61466-1:2016 E

SEK Svensk Elstandard

European foreword

The text of document 36/378/FDIS, future edition 2 of IEC 61466-1, prepared by IEC/TC 36 "Insulators" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61466-1:2016.

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) 2017-03-22
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2019-06-22

This document supersedes EN 61466-1:1997.

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 61466-1:2016 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 61109:2008	NOTE	Harmonized as EN 61109:2008.

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 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60120	1984	Dimensions of ball and socket couplings of string insulator units	HD 474 S1	1986
IEC 60471	1977	Dimensions of clevis and tongue couplings of string insulator units	-	-

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

_____

COMPOSITE STRING INSULATOR UNITS FOR OVERHEAD LINES WITH A NOMINAL VOLTAGE GREATER THAN 1 000 V –

Part 1: Standard strength classes and end fittings

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.
2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
6) All users should ensure that they have the latest edition of this publication.
7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61466-1 has been prepared by IEC technical committee 36: Insulators.

This second edition cancels and replaces the first edition published in 1997. This edition constitutes a technical revision.

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

a) Addition of strength classes reflecting UHV practice;
b) Inclusion of Corrigendum 1:2008 for Y fitting hole dimensions.

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

FDIS	Report on voting
36/378/FDIS	36/381/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.

A list of all parts in the IEC 61466 series, published under the general title *Composite string insulator units for overhead lines with a nominal voltage greater than 1 000 V*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website 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.

COMPOSITE STRING INSULATOR UNITS FOR OVERHEAD LINES WITH A NOMINAL VOLTAGE GREATER THAN 1 000 V –

Part 1: Standard strength classes and end fittings

1 Scope

This part of IEC 61466 is applicable to composite string insulator units for a.c. overhead lines with a nominal voltage greater than 1 000 V and a frequency not greater than 100 Hz.

It also applies to insulators of similar design used in substations or on electric traction lines.

This standard applies to string insulator units of composite type with ball, socket, tongue, clevis, Y-clevis or eye couplings, or a combination thereof.

The object of this standard is to prescribe specified values for the mechanical characteristics of the composite string insulator units and define the main dimensions of the couplings to be used on the composite string insulator units in order to permit the assembly of insulators or fittings supplied by different manufacturers and to allow, whenever practical, interchangeability with existing installations.

It also defines a standard designation system for composite string insulator units.

NOTE 1 General definitions and methods of testing are given in IEC 61109.

NOTE 2 Only the dimensions necessary for assembly of the couplings are dealt with in this International Standard. Properties of material and working loads are not specified. The coordination of dimensions of the end-fittings with the strength classes is specified in Clause 7.

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 60120:1984, *Dimensions of ball and socket couplings of string insulator units*

IEC 60471:1977, *Dimensions of clevis and tongue couplings of string insulator units*