Irish Standard
I.S. EN 61466-1:2016

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

I.S. EN 61466-1:2016

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN 61466-1:2016 is the adopted Irish version of the European Document EN 61466-1:2016, Composite string insulator units for overhead lines with a nominal voltage greater than 1000 V - Part 1: Standard strength classes and end fittings

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

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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)

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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 61466-1:2016 E

EN 61466-1:2016

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• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2019-06-22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

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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	-	-

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IEC 61466-1

Edition 2.0 2016-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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

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 61466-1:2016-05(en-fr)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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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

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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*

3 Mechanical and dimensional characteristics

Composite string insulator units are standardized by the following specified characteristics:

– specified mechanical load (SML);
– standard couplings.

All dimensions are expressed in millimetres.

The dimensions apply to the finished product after any surface treatment.