

Composite string insulator units for overhead lines with a nominal voltage greater than 1 kV - Part 2: Dimensional and electrical characteristics; Amendment A1 (IEC 61466-2:1998/A1:2002)

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[SIST EN 61466-2:2000/A1:2004](https://standards.iteh.ai/catalog/standards/sist/e841dd20-0cfl-45af-ac3d-68383633a800/sist-en-61466-2-2000-a1-2004)  
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EUROPEAN STANDARD

**EN 61466-2/A1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2002

ICS 29.080.10; 29.240.20

English version

**Composite string insulator units for overhead lines  
with a nominal voltage greater than 1 kV  
Part 2: Dimensional and electrical characteristics  
(IEC 61466-2:1998/A1:2002)**

Isolateurs composites destinés  
aux lignes aériennes de tension nominale  
supérieure à 1 kV  
Partie 2: Caractéristiques dimensionnelles  
et électriques  
(CEI 61466-2:1998/A1:2002)

Verbund-Kettenisolatoren  
für Freileitungen mit einer  
Nennspannung über 1000 V  
Teil 2: Maße und elektrische Kennwerte  
(IEC 61466-2:1998/A1:2002)

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This amendment A1 modifies the European Standard EN 61466-2:1998; it was approved by CENELEC on 2002-03-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, 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 text of document 36B/202/FDIS, future amendment 1 to IEC 61466-2:1998, prepared by SC 36B, Insulators for overhead lines, of IEC TC 36, Insulators, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 61466-2:1998 on 2002-03-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented  
at national level by publication of an identical  
national standard or by endorsement (dop) 2002-12-01
- latest date by which the national standards conflicting  
with the amendment have to be withdrawn (dow) 2005-03-01

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## Endorsement notice

The text of amendment 1:2002 to the International Standard IEC 61466-2:1998 was approved by CENELEC as an amendment to the European Standard without any modification.

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SIST EN 61466-2:2000/A1:2004

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NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD

CEI  
IEC

61466-2

1998

AMENDEMENT 1  
AMENDMENT 1  
2002-01

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Amendement 1

**Isolateurs composites destinés aux lignes  
aériennes de tension nominale supérieure à  
1 000 V –**

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**Partie 2:  
Caractéristiques dimensionnelles et électriques**

SIST EN 61466-2:2000/A1:2004

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Amendment 1

**Composite string insulator units for overhead lines  
with a nominal voltage greater than 1 000 V –**

**Part 2:  
Dimensional and electrical characteristics**

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

CODE PRIX  
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For price, see current catalogue

## FOREWORD

This amendment has been prepared by subcommittee 36B: Insulators for overhead lines, of IEC technical committee 36: Insulators.

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

FDIS	Report on voting
36B/202/FDIS	36B/204/RVD

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

The committee has decided that the contents of the base publication and its amendments will remain unchanged until 2004-06. At this date, the publication will be

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

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Page 7

### 1 Scope

[SIST EN 61466-2:2000/A1:2004](https://standards.iteh.ai/catalog/standards/sist/e841dd20-0cfl-45af-ac3d-61466-2-2000-a1-2004)

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*Replace the existing clause 1 by the following:* [61466-2-2000-a1-2004](https://standards.iteh.ai/catalog/standards/sist/e841dd20-0cfl-45af-ac3d-61466-2-2000-a1-2004)

This part of IEC 61466 is applicable to composite string insulator units with a specified mechanical load (SML) of 40 kN to 210 kN 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 for railway applications.

This standard applies to string insulator units of composite type with fittings in accordance with IEC 61466-1.

This standard prescribes specified values for electrical and dimensional characteristics for composite insulators for overhead lines with a highest standard lightning impulse level of 1 050 kV and a specified mechanical load (SML) of 40 kN to 210 kN.

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

Page 9

*Add the following new clause 8:*

### 8 Field control and arc protection devices

For higher system voltages, field control devices may be necessary. When such devices are fitted on the insulators, the arcing distance in table 1 shall be determined considering their presence. However, if separate arc protection devices are used, they shall not be taken into account.

**Table 1 – Designation and characteristics of composite insulators**

Replace the existing table by the following new table:

**Table 1 – Designation and characteristics of composite insulators**

Designation <sup>a</sup>	Preferred specified mechanical loads (non-preferred values greyed out) (SML)						Standard lightning impulse withstand voltage <sup>b</sup>	Minimum creepage distance	Minimum arcing distance <sup>c</sup>	Maximum diameter of the insulating part	Highest voltage for equipment based on 16 mm/kV specific creepage distance <sup>d</sup>
	kN										
CS(SML)XZ- 60/195	40	70	100	120	160	210	60	195	100	200	12
CS(SML)XZ- 75/195	40	70	100	120	160	210	75	195	125	200	12
CS(SML)XZ- 75/280	40	70	100	120	160	210	75	280	125	200	17,5
CS(SML)XZ- 95/195	40	70	100	120	160	210	95	195	160	200	12
CS(SML)XZ- 95/280	40	70	100	120	160	210	95	280	160	200	17,5
CS(SML)XZ- 95/385	40	70	100	120	160	210	95	385	160	200	24
CS(SML)XZ- 125/385	40	70	100	120	160	210	125	385	210	200	24
CS(SML)XZ- 145/385	40	70	100	120	160	210	145	385	240	200	24
CS(SML)XZ- 145/580	40	70	100	120	160	210	145	580	240	200	36
CS(SML)XZ- 170/580	40	70	100	120	160	210	170	580	285	200	36
CS(SML)XZ- 250/835	40	70	100	120	160	210	250	835	435	200	52
CS(SML)XZ- 325/1160	40	70	100	120	160	210	325	1160	570	200	72,5
CS(SML)XZ-450/1970	40	70	100	120	160	210	450	1 970	815	200	123
CS(SML)XZ-450/2320	40	70	100	120	160	210	450	2 320	815	200	145
CS(SML)XZ-550/1970	40	70	100	120	160	210	550	1 970	1 005	200	123
CS(SML)XZ-550/2320	40	70	100	120	160	210	550	2 320	1 005	200	145
CS(SML)XZ-550/2720	40	70	100	120	160	210	550	2 720	1 005	200	170
CS(SML)XZ-650/2320	40	70	100	120	160	210	650	2 320	1 195	200	145
CS(SML)XZ-650/2720	40	70	100	120	160	210	650	2 720	1 195	200	170
CS(SML)XZ-650/3920	40	70	100	120	160	210	650	3 920	1 195	200	245
CS(SML)XZ-750/2720	40	70	100	120	160	210	750	2 720	1 395	200	170
CS(SML)XZ-750/3920	40	70	100	120	160	210	750	3 920	1 395	200	245
CS(SML)XZ-850/3920	40	70	100	120	160	210	850	3 920	1 585	200	245
CS(SML)XZ-950/3920	40	70	100	120	160	210	950	3 920	1 775	200	245
CS(SML)XZ-1050/3920	40	70	100	120	160	210	1050	3 920	1 970	200	245

<sup>a</sup> SML is the chosen specified mechanical load. XZ are the coupling code letters in accordance with IEC 61466-1.

<sup>b</sup> When using arc protection devices, greater values of lightning impulse withstand voltage, in accordance with insulation co-ordination rules, may be specified by the customer.

<sup>c</sup> The minimum arcing distance is specified, rather than a maximum section length (distance between couplings), because the diversity of end fitting types and materials makes it impractical, at the time of this edition, to standardise section length.

<sup>d</sup> This column is given for information only. For supplementary information on creepage distance see annex A.