IEC 61466-2

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FINAL VERSION

VERSION FINALE

Composite string insulator units for overhead lines with a nominal voltage greater than 1 000 V –
Part 2: Dimensional and electrical characteristics

Isolateurs composites destinés aux lignes aériennes de tension nominale supérieure à 1 000 V –
Partie 2: Caractéristiques dimensionnelles et électriques

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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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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This Consolidated version of IEC 61466-2 bears the edition number 1.2. It consists of the first edition (1998-08) [documents 36B/179/FDIS and 36B/183/RVD], its amendment 1 (2002-01) [documents 36B/202/FDIS and 36B/204/RVD] and its amendment 2 (2018-05) [documents 36/427/FDIS and 36/429/RVD]. The technical content is identical to the base edition and its amendments.

This Final version does not show where the technical content is modified by amendments 1 and 2. A separate Redline version with all changes highlighted is available in this publication.

International Standard IEC 61466-2 has been prepared by subcommittee 36B: Insulators for overhead lines, of IEC technical committee 36: Insulators.

Annex A is for information only.

The committee has decided that the contents of the base publication and its amendments 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- withdrawn,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.

INTRODUCTION to Amendment 2

Amendment 2 implements the introduction of UHV (ultra-high voltage) applications and the relevant characteristics of composite insulators.

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

Part 2: Dimensional and electrical characteristics

1 Scope

This part of IEC 61466 is applicable to composite string insulator units with a specified mechanical load (SML) of 40 kN to 600 kN for AC 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 specifies values for electrical and dimensional characteristics for composite insulators for overhead lines with a minimum lightning impulse withstand voltage (BIL) up to 3 100 kV and a specified mechanical load (SML) of 40 kN to 600 kN.

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

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 61466. At the time of publication, the editions indicated were valid. All normative documents are subjected to revision, and parties to agreements based on this part of IEC 61466 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60071-1:1993, *Insulation co-ordination – Part 1: Definitions, principles and rules*

IEC 60071-2:1976, *Insulation co-ordination – Part 2: Application guide*

IEC TS 60815-3, *Selection and dimensioning of high-voltage insulators intended for use in polluted conditions – Part 3: Polymer insulators for a.c. systems*

IEC 61109:1992, *Composite insulators for a.c. overhead lines with a nominal voltage greater than 1 000 V – Definitions, test methods and acceptance criteria*

IEC 61466-1:1997, *Composite string insulator units for overhead lines with a nominal voltage greater than 1 000 V – Part 1: Standard strength classes and end fittings*