

### SLOVENSKI STANDARD SIST EN IEC 60383-1:2023

**01-november-2023** 

Izolatorji za nadzemne vode za nazivne napetosti nad 1 kV - 1. del: Keramični ali stekleni izolatorji za izmenične sisteme - Definicije, preskusne metode in prevzemna merila

Insulators for overhead lines with a nominal voltage above 1000 V - Part 1: Ceramic or glass insulator units for a.c. systems - Definitions, test methods and acceptance criteria

Isolatoren für Freileitungen mit einer Nennspannung über 1 kV - Teil 1: Keramik- oder Glas-Isolatoren für Wechselstromsysteme - Begriffe, Prüfverfahren und Annahmekriterien

Isolateurs pour lignes aériennes de tension nominale supérieure à 1000 V - Partie 1: Eléments d'isolateurs en matière céramique ou en verre pour systèmes à courant alternatif - Définitions, méthodes d'essai et critères d'acceptation

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Ta slovenski standard je istoveten z: EN IEC 60383-1:2023

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(Vocabularies)

29.080.10 Izolatorji Insulators

29.240.20 Daljnovodi Power transmission and

distribution lines

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### EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

**EN IEC 60383-1** 

September 2023

ICS 29.080.10; 29.240.20

Supersedes EN 60383-1:1996; EN 60383-1:1996/A11:1999

#### **English Version**

Insulators for overhead lines with a nominal voltage above 1 000 V - Part 1: Ceramic or glass insulator units for a.c. systems - Definitions, test methods and acceptance criteria (IEC 60383-1:2023)

Isolateurs pour lignes aériennes de tension nominale supérieure à 1 000 V - Partie 1: Éléments d'isolateurs en matière céramique ou en verre pour systèmes à courant alternatif - Définitions, méthodes d'essai et critères d'acceptation (IEC 60383-1:2023)

Isolatoren für Freileitungen mit einer Nennspannung über 1 000 V - Teil 1: Keramik- oder Glas-Isolatoren für Wechselstromsysteme - Begriffe, Prüfverfahren und Annahmekriterien (IEC 60383-1:2023)

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#### EN IEC 60383-1:2023 (E)

#### **European foreword**

The text of document 36/564/FDIS, future edition 5 of IEC 60383-1, prepared by IEC/TC 36 "Insulators" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60383-1:2023.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2024-05-11 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2026-08-11 document have to be withdrawn

This document supersedes EN 60383-1:1996 and all of its amendments and corrigenda (if any).

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# Annex ZA (normative)

# Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where 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.cencenelec.eu.

more. <u>www.somoonoise.c</u>	<u> </u>			
<u>Publication</u>	<u>Year</u>	<u>Title</u>	EN/HD	<u>Year</u>
IEC 60060-1	-	High-voltage test techniques - Part 1: General definitions and test requirements	EN 60060-1	-
IEC 60120	-	Ball and socket couplings of string insulato units - Dimensions	rEN IEC 60120	-
IEC 60305	(h	Insulators for overhead lines with a nominal voltage above 1000 V - Ceramic or glass insulator units for AC systems - Characteristics of insulator units of the cap and pin type	EN IEC 60305	-
IEC 60372	-	Locking devices for ball and socket couplings of string insulator units - Dimensions and tests	EN IEC 60372	-
IEC 60433 /standards.iteh.ai/cat	alog/stan	Insulators for overhead lines with a nominal voltage above 1000 V - Ceramic insulators for AC systems - Characteristics of insulator units of the long rod type	<b>EN IEC 60433</b> c3523e9d57/sist-ei	-iec-60383-1-2023
IEC 60437	-	Radio interference test on high-voltage insulators	EN 60437	-
IEC 60471	-	Clevis and tongue couplings of string insulator units - Dimensions	EN IEC 60471	-
IEC 61211	-	Insulators of ceramic material or glass for overhead lines with a nominal voltage greater than 1 000 V - Impulse puncture testing in air	EN 61211	-
ISO 1459	1973	Metallic coatings - Protection against corrosion by hot dip galvanizing - Guiding principles	-	-
ISO 1460	-	Metallic coatings - Hot dip galvanized coatings on ferrous metals - Determination of the mass per unit area - Gravimetric	EN ISO 1460	-

method

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ISO 1461	-	Hot dip galvanized coatings on fabricated iron and steel articles - Specifications and test Methods	EN ISO 1461	-
ISO 1463	-	Metal and oxide coatings - Measurement of coating thickness - Microscopical method	ofEN ISO 1463	-
ISO 2064	-	Metallic and other inorganic coatings - Definitions and conventions concerning the measurement of thickness	EN ISO 2064 e	-
ISO 2178	2016	Non-magnetic coatings on magnetic substrates - Measurement of coating thickness - Magnetic method	EN ISO 2178	2016

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### IEC 60383-1

Edition 5.0 2023-07

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



Insulators for overhead lines with a nominal voltage above 1000 V – Part 1: Ceramic or glass insulator units for a.c. systems – Definitions, test methods and acceptance criteria

Isolateurs pour lignes aériennes de tension nominale supérieure à 1 000 V – Partie 1: Éléments d'isolateurs en matière céramique ou en verre pour systèmes à courant alternatif – Définitions, méthodes d'essai et critères d'acceptation

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

ICS 29.080.10, 29.240.20 ISBN 978-2-8322-7128-5

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#### INTERNATIONAL ELECTROTECHNICAL COMMISSION

## INSULATORS FOR OVERHEAD LINES WITH A NOMINAL VOLTAGE ABOVE 1 000 V -

# Part 1: Ceramic or glass insulator units for AC systems – Definitions, test methods and acceptance criteria

#### **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.
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IEC 60383 has been prepared by IEC technical committee 36: Insulators. It is an International Standard.

This fifth edition cancels and replaces the fourth edition published in 1993. This edition constitutes a technical revision.

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

- a) The complete document has been revised and updated. The layout of the document has been changed in order to increase readability;
- b) RIV test has been added (Clause 14);
- c) Impulse puncture test in air has been added (15.2);
- d) Residual strength test has been added (Clause 21);

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- e) Zinc sleeve test has been added (Clause 28);
- f) Impact test has been added (Clause 30);
- g) Annex C, coatings on ceramic and glass insulators has been added;
- h) Annex D, impact test has been added.

The text of this International Standard is based on the following documents:

Draft	Report on voting	
36/564/FDIS	36/571/RVD	

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at <a href="https://www.iec.ch/members\_experts/refdocs">www.iec.ch/members\_experts/refdocs</a>. The main document types developed by IEC are described in greater detail at <a href="https://www.iec.ch/publications">www.iec.ch/publications</a>.

A list of all parts in the IEC 60383 series, published under the general title *Insulators for overhead lines with a nominal voltage above 1 000 V*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

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

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#### INTRODUCTION

This part of IEC 60383 deals with four different types of insulators:

- Pin insulators
- Line post insulators
- String insulator units
- Insulators for overhead electric traction lines

Certain clauses of this document contain general requirements and other clauses contain specific tests relevant to each of the above-mentioned insulators.

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