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STN	**Technika skúšok vysokým napätím** **Časť 2: Meracie systémy**	**STN** **EN IEC 60060-2** 34 5640

High-voltage test techniques - Part 2: Measuring systems

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 08/25

Obsahuje: EN IEC 60060-2:2025, IEC 60060-2:2025

Oznámením tejto normy sa od 30.06.2028 ruší
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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 60060-2

June 2025

ICS 17.220.20; 19.080

Supersedes EN 60060-2:2011

English Version

High-voltage test techniques - Part 2: Measuring systems (IEC 60060-2:2025)

Techniques des essais à haute tension - Partie 2: Systèmes de mesure
(IEC 60060-2:2025)

Hochspannungs-Prüftechnik - Teil 2: Messsysteme
(IEC 60060-2:2025)

This European Standard was approved by CENELEC on 2025-05-22. 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.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN IEC 60060-2:2025 E

EN IEC 60060-2:2025 (E)

European foreword

The text of document 42/443/FDIS, future edition 4 of IEC 60060-2, prepared by TC 42 "High-voltage and high-current test techniques" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60060-2:2025.

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) 2026-06-30
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2028-06-30

This document supersedes EN 60060-2:2011 and all of its amendments and corrigenda (if any).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 60060-2:2025 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 60060-3	NOTE	Approved as EN 60060-3
IEC 60071-1	NOTE	Approved as EN IEC 60071-1
IEC 60270	NOTE	Approved as EN 60270
IEC 62475	NOTE	Approved as EN 62475
ISO/IEC 17025:2017	NOTE	Approved as EN ISO/IEC 17025:2017 (not modified)

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.

Publication	Year	Title	EN/HD	Year
IEC 60052	-	Voltage measurement by means of standard air gaps	EN 60052	-
IEC 60060-1	-	High-voltage test techniques - Part 1: General terminology and test requirements	EN IEC 60060-1	-
IEC 61083	series	Instruments and software used for measurements in high-voltage and high-current tests	EN 61083	series
IEC 61083-1	-	Instruments and software used for measurements in high-voltage and high-current tests - Part 1: Requirements for instruments for impulse tests	EN 61083-1	-
IEC 61083-2	-	Instruments and software used for measurement in high-voltage and high-current tests - Part 2: Requirements for software for tests with impulse voltages and currents	EN 61083-2	-
ISO/IEC Guide 98-3	2008	Uncertainty of measurement - Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)	-	-

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

High-voltage test techniques – Part 2: Measuring systems

Techniques des essais à haute tension – Partie 2: Systèmes de mesure

IEC 60060-2:2025-04(en-fr)

IEC 60060-2

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High-voltage test techniques – Part 2: Measuring systems

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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HIGH-VOLTAGE TEST TECHNIQUES –

Part 2: Measuring systems

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 60060-2 has been prepared by IEC technical committee 42: High-voltage and high current test techniques. It is an International Standard.

This fourth edition cancels and replaces the third edition published in 2010. This edition constitutes a technical revision.

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

a) The general layout and text has been updated and improved to make the standard easier to use.
b) This document has been revised to align it with the fourth edition of IEC 60060-1.
c) The treatment of measurement uncertainty estimation has been expanded.

d) This document is now applicable to measuring systems used in testing at all standard insulation levels specified in IEC 60071-1.

e) The measurement uncertainty requirement for the front time of the standard lighting impulse voltage has been changed from 10 % to 15 %, for testing at all standard insulation levels specified in IEC 60071-1.

f) The parameter "time-to-peak" of the switching impulse defined in the third edition of IEC 60060-1:2010 has been replaced by "front time" in the fourth edition of IEC 60060-1. Necessary changes have been made in this document to accommodate this change in IEC 60060-1.

g) Clause 10, Measurement of combined voltages and Clause 11, Measurement of composite voltages have been added.

h) Clause B.1 has been significantly revised to align more closely with the provisions of Clause 5, including using the same nomenclature.

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

Draft	Report on voting
42/443/FDIS	42/447/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 www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC 60060 series, published under the general title *High-voltage test techniques*, 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, or
- revised.

HIGH-VOLTAGE TEST TECHNIQUES –

Part 2: Measuring systems

1 Scope

This part of IEC 60060 is applicable to complete measuring systems and to their components, used for the measurement of high voltages during laboratory and factory tests with direct voltage, alternating voltage and lightning and switching impulse voltages and combined and composite voltages as specified in IEC 60060-1. For measurements during on-site tests, see IEC 60060-3.

The limits on uncertainties of measurements stated in this document apply to test levels stated in IEC 60071-1. The principles of this document apply also to higher levels but the uncertainty can be greater.

This document:

- defines the terms used;
- describes methods to estimate the uncertainties of high-voltage measurements;
- states the requirements that apply to measuring systems;
- describes the methods for approving a measuring system and checking its components;
- describes the procedures by which the user demonstrates that a measuring system meets the requirements of this document, including the limits set for the uncertainty of measurement.

2 Normative references

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.

IEC 60052, *Voltage measurement by means of standard air gaps*

IEC 60060-1, *High-voltage test techniques – Part 1: General terminology and test requirements*

IEC 61083 (all parts), *Instruments and software used for measurements in high-voltage and high-current tests*

IEC 61083-1, *Instruments and software used for measurements in high-voltage and high-current tests – Part 1: Requirements for instruments for impulse tests*

IEC 61083-2, *Instruments and software used for measurement in high-voltage and high-current tests – Part 2: Requirements for software for tests with impulse voltages and currents*

ISO/IEC Guide 98-3:2008, *Uncertainty of measurement – Part 3: Guide to the expression of uncertainty in measurement (GUM: 1995)*