

SLOVENSKI STANDARD
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Measuring relays and protection equipment -- Part 22-5: Electrical disturbance tests - Surge immunity test

Messrelais und Schutzrichtungen – Teil 22-5: Prüfung der elektrischen Störfestigkeit – Prüfung der Störfestigkeit gegen Stoßspannungen

Relais de mesure et dispositifs de protection -- Partie 22-5: Essais d'influence électrique - Essais d'immunité aux ondes de choc

Ta slovenski standard je istoveten z: EN 60255-22-5:2011

ICS:

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60255-22-5

April 2011

ICS 29.120.70

Supersedes EN 60255-22-5:2002

English version

**Measuring relays and protection equipment -
Part 22-5: Electrical disturbance tests -
Surge immunity test
(IEC 60255-22-5:2008)**

Relais de mesure et dispositifs de
protection -
Partie 22-5: Essais d'influence électrique -
Essais d'immunité aux ondes de choc
(CEI 60255-22-5:2008)

Messrelais und Schutzeinrichtungen -
Teil 22-5: Prüfung der elektrischen
Störfestigkeit -
Prüfungen der Störfestigkeit gegen
Stoßspannungen
(IEC 60255-22-5:2008)

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This European Standard was approved by CENELEC on 2011-01-02. 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.

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 European Standard 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, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

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Foreword

The text of document 95/242/FDIS, future edition 2 of IEC 60255-22-5, prepared by IEC TC 95, Measuring relays and protection equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60255-22-5 on 2011-01-02.

This European Standard supersedes EN 60255-22-5:2002.

The main change with respect to EN 60255-22-5:2002 concerns line to earth tests (see Figures 8, 9, 10).

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

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2011-10-02
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2014-01-02

Annex ZA has been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 60255-22-5:2008 was approved by CENELEC as a European Standard without any modification. [SIST EN 60255-22-5:2011](https://standards.iteh.ai/catalog/standards/sist/bc10534e-c02a-470a-a2f0-69365c70ba/sist-en-60255-22-5-2011)

<https://standards.iteh.ai/catalog/standards/sist/bc10534e-c02a-470a-a2f0-69365c70ba/sist-en-60255-22-5-2011>
In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60255-27:2005 NOTE Harmonized as EN 60255-27:2005 (not modified).

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60255-6	1988	Electrical relays - Part 6: Measuring relays and protection equipment	EN 60255-6	1994
IEC 61000-4-5	2005	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	EN 61000-4-5	2006

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Measuring relays and protection equipment –
Part 22-5: Electrical disturbance tests – Surge immunity test**

**Relais de mesure et dispositifs de protection –
Partie 22-5: Essais d'influence électrique – Essais d'immunité aux ondes de
choc**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

MEASURING RELAYS AND PROTECTION EQUIPMENT –**Part 22-5: Electrical disturbance tests –
Surge immunity test**

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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International Standard IEC 60255-22-5 has been prepared by technical committee 95: Measuring relays and protection equipment.

This second edition cancels and replaces the first edition published in 2002. It constitutes a technical revision. The main change concerns line to earth tests (see Figures 8, 9, 10).

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

FDIS	Report on voting
95/242/FDIS	95/247/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 of IEC 60255 series, published under the general title *Measuring relays and protection equipment*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result 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.

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[SIST EN 60255-22-5:2011](https://standards.iteh.ai/catalog/standards/sist/bc10534e-c02a-470a-a2f0-097365c76f6a/sist-en-60255-22-5-2011)

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MEASURING RELAYS AND PROTECTION EQUIPMENT –

Part 22-5: Electrical disturbance tests – Surge immunity test

1 Scope and object

This part of IEC 60255 is based on IEC 61000-4-5, referring to that publication where applicable, and specifies the general requirements for surge immunity tests for measuring relays and protection equipment for power system protection, including the control, monitoring and process interface equipment used with those systems.

The objective of the tests is to confirm that the equipment under test will operate correctly when energized and subjected to high-energy disturbances on the power and interconnection lines, caused by surge voltages from switching and lightning effects.

This standard does not intend to test the capability of the insulation to withstand high-voltage stress. The insulation test is covered by IEC 60255-27.

The requirements specified in this standard are applicable to measuring relays and protection equipment in a new condition and all tests specified are type tests only.

The object of this standard is to define:

- terms used; [SIST EN 60255-22-5:2011](https://standards.iteh.ai/catalog/standards/sist/bc10534e-c02a-470a-a2f0-097365c76f6a/sist-en-60255-22-5-2011)
- test severity levels; <https://standards.iteh.ai/catalog/standards/sist/bc10534e-c02a-470a-a2f0-097365c76f6a/sist-en-60255-22-5-2011>
- test equipment;
- test set-up;
- test procedures;
- criteria for acceptance;
- test report requirements.

2 Normative references

The following referenced documents are indispensable for the application 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 60255-6:1988, *Electrical relays – Part 6: Measuring relays and protection equipment*

IEC 61000-4-5:2005, *Electromagnetic compatibility (EMC) – Part 4-5: Testing and measurement techniques – Surge immunity test*