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Standards

Irish Standard
I.S. EN 60255-22-1:2008

Measuring relays and protection equipment -- Part 22-1: Electrical disturbance tests - 1 MHz burst immunity tests (IEC 60255-22-1:2007 (EQV))

I.S. EN 60255-22-1:2008

I.S. EN 60255-22-1:2008

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EUROPEAN STANDARD

EN 60255-22-1

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February 2008

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Supersedes EN 60255-22-1:2005

English version

**Measuring relays and protection equipment -
Part 22-1: Electrical disturbance tests -
1 MHz burst immunity tests
(IEC 60255-22-1:2007)**

Relais de mesure
et dispositifs de protection -
Partie 22-1: Essais d'influence électrique -
Essais d'immunité à l'onde oscillatoire
amortie 1 MHz
(CEI 60255-22-1:2007)

Messrelais und Schutzeinrichtungen -
Teil 22-1: Prüfungen der elektrischen
Störfestigkeit -
Prüfung der Störfestigkeit
gegen 1-MHz-Störgrößen
(IEC 60255-22-1:2007)

This European Standard was approved by CENELEC on 2008-02-01. 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, 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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

I.S. EN 60255-22-1:2008

EN 60255-22-1:2008

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Foreword

The text of document 95/204/CDV, future edition 3 of IEC 60255-22-1, prepared by IEC TC 95, Measuring relays and protection equipment, was submitted to the IEC-CENELEC Parallel Unique Acceptance Procedure and was approved by CENELEC as EN 60255-22-1 on 2008-02-01.

This European Standard supersedes EN 60255-22-1:2005.

The main differences with respect to EN 60255-22-1:2005 are:

- this document is based on EN 61000-4-18;
- a capacitor was added for testing shielded communication lines when earthed at one end only;
- the test procedure for communication ports is clarified;
- the length of the communication cable for testing is fixed at 10 m;
- connection to earth removed in Figure 4 for test generator terminal.

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) | 2008-11-01 |
| – latest date by which the national standards conflicting
with the EN have to be withdrawn | (dow) | 2011-02-01 |

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60255-22-1:2007 was approved by CENELEC as a European Standard without any modification.

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	– ¹⁾	Electrical relays - Part 6: Measuring relays and protection equipment	EN 60255-6 + corr. February	1994 ²⁾ 1995
IEC 61000-4-18	2006	Electromagnetic compatibility (EMC) - Part 4-18: Testing and measurement techniques - Damped oscillatory wave immunity test	EN 61000-4-18 + corr. September	2007 2007

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

MEASURING RELAYS AND PROTECTION EQUIPMENT –

Part 22-1: Electrical disturbance tests – 1 MHz burst immunity tests

FOREWORD

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International Standard IEC 60255-22-1 has been prepared by IEC technical committee 95: Measuring relays and protection equipment.

This third edition cancels and replaces the second edition published in 2005. This standard constitutes a technical revision. The main differences with respect to the previous edition are:

- this document is based on IEC 61000-4-18;
- a capacitor was added for testing shielded communication lines when earthed at one end only;
- the test procedure for communication ports is clarified;
- the length of the communication cable for testing is fixed at 10 m;
- connection to earth removed in Figure 4 for test generator terminal.

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

CDV	Report on voting
95/204/CDV	95/218/RVC

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

A list of all parts of the IEC 60255 series, under the general title *Measuring relays and protection equipment*, can be found on the IEC website.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

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.

MEASURING RELAYS AND PROTECTION EQUIPMENT –

Part 22-1: Electrical disturbance tests – 1 MHz burst immunity tests

1 Scope and object

This part of IEC 60255 is based on IEC 61000-4-18, referring to that publication where applicable, and specifies the general requirements for 1 MHz oscillatory wave immunity tests for measuring relays and protection equipment for power system protection, including the control, monitoring and process interface equipment used with the relays and protection equipment.

The objective of the tests is to confirm that the equipment under test will operate correctly when energised and subjected to repetitive damped oscillatory waves such as those originating from closing or opening circuit breakers or disconnectors in high voltage substations or power plants.

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 state:

- definition of terms used;
- test severity levels;
- test equipment;
- test set-up;
- test procedure;
- criteria for acceptance;
- test report.

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, *Electrical relays – Part 6: Measuring relays and protection equipment*

IEC 61000-4-18:2006, *Electromagnetic Compatibility (EMC) – Part 4-18: Testing and measurement techniques – Damped oscillatory wave immunity test*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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