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Electrical relays - Tests and measurements - Part 7: Functional tests

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

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EN IEC 63522-7

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English Version

**Electrical relays - Tests and measurements - Part 7: Functional tests
(IEC 63522-7:2025)**

Relais électriques - Essais et mesurages - Partie 7: Essais
fonctionnels
(IEC 63522-7:2025)

Elektrische Relais - Mess- und Prüfverfahren - Teil 7:
Funktionelle Tests
(IEC 63522-7:2025)

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EN IEC 63522-7:2025 (E)**European foreword**

The text of document 94/1048/FDIS, future edition 1 of IEC 63522-7, prepared by TC 94 "Electrical relays" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63522-7:2025.

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

IEC 61810-4:2020 NOTE Approved as EN IEC 61810-4:2020 (not modified)

IEC 61810-7:2006 NOTE Approved as EN 61810-7:2006 (not modified)

IEC 62314:2022 NOTE Approved as EN IEC 62314:2024 (not modified)

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60077-1	-	Railway applications - Electric equipment for rolling stock - Part 1: General service conditions and general rules	EN 60077-1	-
IEC 60571	2012	Railway applications - Electronic equipment used on rolling stock	-	-
IEC 61373	2010	Railway applications - Rolling stock equipment - Shock and vibration tests	EN 61373	2010
IEC 61810-1	2015	Electromechanical elementary relays - Part 1: General and safety requirements	EN 61810-1	2015
+ A1	2019		+ A1	2020
IEC 61810-2	2017	Electromechanical elementary relays - Part 2: Reliability	EN 61810-2	2017
IEC 61810-2-1	2017	Electromechanical elementary relays - Part 2-1: Reliability - Procedure for the verification of B10 values	EN 61810-2-1	2017
IEC 61810-3	2015	Electromechanical elementary relays - Part 3: Relays with forcibly guided (mechanically linked) contacts	EN 61810-3	2015
IEC 61812-1	2023	Time relays and coupling relays for industrial and residential use - Part 1: Requirements and tests	EN IEC 61812-1	2024
IEC 62246-1	2015	Reed switches - Part 1: Generic specification	EN 62246-1	2015
IEC 62479	-	Assessment of the compliance of low-power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHz to 300 GHz)	EN 62479	-
IEC 62497-1	2010	Railway applications - Insulation coordination - Part 1: Basic requirements - Clearances and creepage distances for all electrical and electronic equipment	-	-
IEC 62498-1	-	Railway applications - Environmental conditions for equipment - Part 1: Equipment on board rolling stock	-	-

EN IEC 63522-7:2025 (E)

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 63522-0	— ¹	Electrical relays - Tests and Measurements - Part 0: General and Guidance	EN IEC 63522-0	— ²
IEC 63522-25	2025	Electrical relays - Tests and measurements - Part 25: Magnetic interference	EN IEC 63522-25	-

¹ Under preparation. Stage at the time of publication: IEC CDV 63522-0:2024.

² Under preparation. Stage at the time of publication: prEN IEC 63522-0:2024.



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INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Electrical relays – Tests and measurements –
Part 7: Functional tests**

**Relais électriques – Essais et mesurages –
Partie 7: Essais fonctionnels**



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IEC Secretariat
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
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Edition 1.0 2025-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Electrical relays – Tests and measurements –
Part 7: Functional tests**

**Relais électriques – Essais et mesurages –
Partie 7: Essais fonctionnels**

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ELECTRICAL RELAYS – TESTS AND MEASUREMENTS –**Part 7: Functional tests****FOREWORD**

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IEC 63522-7 has been prepared by IEC technical committee 94: Electrical relays. It is an International Standard.

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

Draft	Report on voting
94/1048/FDIS	94/1083/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.

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ELECTRICAL RELAYS – TESTS AND MEASUREMENTS –

Part 7: Functional tests

1 Scope

This document is used for testing electromechanical elementary relays (electromechanical relays, reed relays, reed contacts, reed switches and technology combinations of these) and evaluates their ability to perform under expected conditions of transportation, storage and all aspects of operational use.

This document defines a standard test method to evaluate the switching function of the device under test (DUT) at specified energization values throughout the defined temperature range. This test method is part of the general DUT type test according to IEC 61810-1:2015, Table 3.

2 Normative references

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IEC 61810-1:2015, *Electromechanical elementary relays – Part 1: General and safety requirements*
IEC 61810-1:2015/AMD1:2019

IEC 61810-2:2017, *Electromechanical elementary relays – Part 2: Reliability*

IEC 61810-2-1:2017, *Electromechanical elementary relays – Part 2-1: Reliability – Procedure for the verification of B10 values*

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IEC 61812-1:2023, *Time relays and coupling relays for industrial and residential use – Part 1: Requirements and tests*

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IEC 62479, *Assessment of the compliance of low-power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHz to 300 GHz)*

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IEC 62498-1, *Railway applications – Environmental conditions for equipment – Part 1: Equipment on board rolling stock*

IEC 63522-0:—, *Electrical relays – Tests and measurements – Part 0: Testing – General and guidance*¹

IEC 63522-25:2025, *Electrical relays – Tests and measurements – Part 25: Testing – Magnetic interference*

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