

INTERNATIONAL STANDARD

**Electrical relays - Tests and measurements -
Part 19: Electrical endurance**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

Electrical relays - Tests and measurements - Part 19: Electrical endurance

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IEC 63522-19 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:

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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 63522 series, published under the general title *Electrical relays – Tests and measurements*, 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- withdrawn, or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.

1 Scope

This part of IEC 63522 defines a test method to measure electrical endurance of electrical relays and provides the appropriate severities and conditions for measurements designed to assess the ability of all kinds of electrical relays to perform under expected conditions of transportation, storage and all aspects of operational use.

This document defines a test method for different kinds of electrical endurance.

NOTE Examples of electrical relays in the sense of this document include electromechanical relays, reed relays, reed contacts, reed switches, solid state relays, time relays and technology combinations of these.

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 60947-5-1:2024, *Low-voltage switchgear and controlgear - Part 5-1: Control circuit devices and switching elements - Electromechanical control circuit devices*

IEC 61810-10:2019, *Electromechanical elementary relays - Part 10: Additional functional aspects and safety requirements for high-capacity relays*

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

IEC 63522-4:2025, *Electrical relays - Tests and measurements - Part 4: Dielectric strength test*

IEC 63522-6:2025, *Electrical relays - Tests and measurements - Part 6: Contact-circuit resistance (or voltage drop)*

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

IEC 63522-41, *Electrical relays - Tests and measurements - Part 41: Tests and measurement procedures - Insulation coordination*

IEC 63522-45:2025, *Electrical relays - Tests and measurements - Part 45: Maximum frequency of operation*

Bibliography

IEC 60669-1:2017, *Switches for household and similar fixed-electrical installations - Part 1: General requirements*

IEC 60730-1:2022, *Automatic electrical controls - Part 1: General requirements*

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

IEC 63522-10:2025, *Electrical relays - Tests and measurements - Part 10: Heating*
