

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Electrical relays – Tests and measurements –
Part 17: Shock, acceleration and vibration**

**Relais électriques – Essais et mesurages –
Partie 17: Chocs, accélération et vibrations**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ELECTRICAL RELAYS –
TESTS AND MEASUREMENTS –**

Part 17: Shock, acceleration and vibration

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IEC 63522-17 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
94/1053/FDIS	94/1082/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 of the IEC 63522 series, published under the general title *Electrical relays – Tests and measurements*, can be found on the IEC website.

The French version of this standard has not been voted upon.

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- withdrawn, or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.

ELECTRICAL RELAYS – TESTS AND MEASUREMENTS –

Part 17: Shock, acceleration and vibration

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 for evaluating their ability to perform under expected conditions of transportation, storage and all aspects of operational use.

This document defines a standard test method to simulate the mechanical stress on relays as it can occur in service, during handling or during transportation. This document comprises test procedures to simulate shock impacts, steady acceleration environments (such as moving vehicles, aircraft and projectiles) as well as vibration conditions.

The tests are generally intended to be carried out with devices under test (DUTs) without packaging. However, if the packaging is considered an essential part of the DUT, then the defined tests can be carried out with packaging as well.

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 60068-2-6:2007, *Environmental testing – Part 2-6: Tests – Test Fc: Vibration (sinusoidal)*

IEC 60068-2-7:1983, *Basic environmental testing procedures – Part 2-7: Tests – Test Ga and guidance: Acceleration, steady state*
IEC 60068-2-7:1983/AMD1:1985

IEC 60068-2-27:2008, *Environmental testing – Part 2-27: Tests – Test Ea and guidance: Shock*

IEC 60068-2-64:2008, *Environmental testing – Part 2-64: Tests – Test Fh: Vibration, broadband random and guidance*
IEC 60068-2-64:2008/AMD1:2019

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

IEC 63522-1, *Electrical relays – Tests and measurements – Part 1: Visual inspection and check of dimensions²*

IEC 63522-5, *Electrical relays – Tests and measurements – Part 5: Insulation resistance*

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² First edition under preparation. Stage at the time of publication: IEC CDV 63522-1:2023.