

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

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**Electrical relays – Tests and measurements –  
Part 32: Acoustic Noise**

**Relais électriques – Essais et mesurages –  
Partie 32: Bruit acoustique**





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COMMISSION

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ELECTRICAL RELAYS –  
TESTS AND MEASUREMENTS –**

**Part 32: Acoustic noise**

**FOREWORD**

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IEC 63522-32 has been prepared by IEC technical committee 94: All-or-nothing electrical relays. It is an International Standard.

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

Draft	Report on voting
94/1066/FDIS	94/1098/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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

A list of all parts of IEC 63522 series, published under the general title *Electrical relays – Tests and measurements*, can be found on the IEC website.

This International Standard is to be used in conjunction with IEC 63522-0:–<sup>1</sup>.

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](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

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

# ELECTRICAL RELAYS – TESTS AND MEASUREMENTS –

## Part 32: Acoustic noise

### 1 Scope

This part of IEC 63522 is used for testing all kinds of electrical relays and for evaluating their ability to perform under expected conditions of transportation, storage and all aspects of operational use.

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

This document defines a standard test method to investigate the effect of acoustic noise in conjunction with the operating, releasing and cycling noise of a relay and the immunity of a relay to acoustic noise.

### 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 61672-1, *Electroacoustics – Sound level meters – Part 1: Specifications*

IEC 63522-0:<sup>–2</sup>, *Electrical relays – Tests and measurements – Part 0: General and guidance*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 63522-0 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

### 4 Test procedure

#### 4.1 Purpose

The test for noise emission is done to ensure that the operating, releasing and cycling noise of the device under test (DUT) is within the specified limits. The test is preferably applicable for relays in applications where acoustic emissions of the relay are of interest.

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<sup>2</sup> Under preparation. Stage at the time of publication: IEC CDV 63522-0:2024.