

# **BUREAU OF INDIAN STANDARDS**

## **DRAFT FOR COMMENTS ONLY**

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Draft Indian Standard

### **Electromechanical elementary relays Part 10: Additional functional aspects and safety requirements for high-capacity relays**

(ICS 29.120.70)

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Power Systems Relays Sectional Committee  
ETD 35

Last Date for Comments  
**08/02/2023**

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#### NATIONAL FOREWORD

This Indian Standard which is identical with IEC 61810-10 “Electromechanical elementary relays Part 10: Additional functional aspects and safety requirements for high-capacity relays” issued by the International Electrotechnical Commission (IEC) will be adopted by the Bureau of Indian Standards on the recommendation of the Power Systems Relays Sectional Committee and approval of the Electrotechnical Division Council.

The text of the IEC Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appears referring to this standard, they should be read as ‘Indian Standard’.
- b) Comma (,) has been used as a decimal marker, while in Indian Standards the current practice is to use a point (.) as the decimal marker.

In this standard, reference appears to International Standards for which Indian Standards also exists. The corresponding Indian Standards, which are to be substituted, are listed below along with their degree of equivalence for the editions indicated:

International Standard	Corresponding Indian Standard	Degree of Equivalence
IEC 60028, International standard of resistance for copper	IS 191 : 2007 Copper - Specification (Fourth Revision)	Technical Equivalent
IEC 60060-1:2010 High-voltage test techniques -Part 1: General definitions and test requirements	IS 2071 (Part 1) : 2016 High-voltage test techniques - Part 1: General definitions and test requirements	Identical under dual numbering
IEC 60068-2-17 Basic environmental testing	IS/IEC 60068-2-17) Basic environmental testing procedures	Identical under single numbering

procedures - Part 2-17: Tests - Test Q: Sealing	- Part 2-17: Tests - Test Q: Sealing	
IEC 60068-2-27 Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock	IS 9000 (Part 7/ Sec 1) : 2018 Basic environmental testing procedures for electronic and electrical items: Part 7 impact test: Sec 1 shock (Test Ea) (Second Revision)	Identical under dual numbering with IEC 60068-2-27 : 2008
IEC 60270 High-voltage test techniques - Partial discharge measurements	IS/IEC 60270 High-voltage test techniques - Partial discharge measurements	Identical under single numbering
IEC 60664-1 :2007 Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests	IS 15382 (Part 1) 2014 Insulation coordination for equipment within low - Voltage systems: Part 1 principles, requirements and tests (First Revision)	Identical under dual numbering
IEC 60947-1 :2007 Low-voltage switchgear and controlgear - Part 1: General rules	IS/IEC 60947-1 :2007 Low - Voltage switchgear and controlgear: Part 1 general rules (First Revision)	Identical under single numbering
IEC 61810-1:2015 Electromechanical elementary relays - Part 1: General and safety requirements	IS 17064 (Part 1) 2018 Electromechanical elementary relays: Part 1 general and safety requirements	Identical under dual numbering

The technical committee has reviewed the provisions of the following international standards referred in this standard and decided that they are acceptable for use in conjunction with this standard.

<i>International Standard</i>	<i>Title</i>
IEC 60068-2-14	Environmental testing - Part 2-14: Tests - Test N: Change of temperature
IEC 60068-2-64:2008	Environmental testing - Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance
IEC 60664-3:2016	Insulation coordination for equipment within low-voltage systems - Part 3: Use of coating, potting or moulding for protection against pollution
IEC 60999-1	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units - Part 1: General requirements and particular requirements for clamping units for conductors from 0,2 mm <sup>2</sup> up to 35 mm <sup>2</sup> (included)
IEC 60999-2	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units - Part 2: Particular requirements for clamping units for conductors above 35 mm <sup>2</sup> up to 300 mm <sup>2</sup> (included)
ISO 16750-1:2018	Road vehicles - Environmental conditions and testing for electrical and electronic equipment - Part 1: General
ISO 16750-2:2012	Road vehicles - Environmental conditions and testing for electrical and electronic equipment - Part 2: Electrical loads

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test, shall be rounded off in accordance with IS 2: 1960 'Rules for rounding off numerical values (revised)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

**Note:** The technical content of this document has not been enclosed, as this is identical with the corresponding IEC standard. For details, please refer the corresponding IEC 61810-10 or kindly contact:

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