

Electrical relays —

Part 3: Specification for the insulation testing of electrical relays

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- Associated Offices Technical Committee
- British Electrical and Allied Manufacturers' Association (BEAMA)
- British Radio Equipment Manufacturers' Association
- British Steel Corporation
- Department of Energy (Electricity)
- Electric Cable Makers' Confederation
- Electrical Contractors' Association
- Electrical Contractors' Association of Scotland
- Electricity Supply Industry in England and Wales*
- Electronic Components Industry Federation*
- Electronic Engineering Association
- Engineering Equipment Users' Association
- ERA Technology Ltd.
- Health and Safety Executive
- Home Office
- Institution of Electrical Engineers*
- Ministry of Defence*
- National Coal Board
- Oil Companies' Materials Association
- Post Office*

The organizations marked with an asterisk in the above list, together with the following, were directly represented on the Technical Committee entrusted with the preparation of this British Standard:

- Telecommunication Engineering and Manufacturing Association (TEMA)
- The Transmission and Distribution Association (BEAMA)

This British Standard, having been prepared under the direction of the General Electrotechnical Engineering Standards Committee, was published under the authority of the Executive Board and comes into effect on 31 October 1980

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The following BSI references relate to the work on this standard:
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National foreword

This Part of this British Standard, which has been prepared under the direction of the General Electrotechnical Engineering Standards Committee, is identical with IEC Publication 255-5 “*Insulation tests for electrical relays*”, published in 1977 by the International Electrotechnical Commission (IEC).

Those Parts of IEC Publication 255 “*Electrical relays*” which are concerned primarily with protection relays are incorporated where required into BS 142:1980 “*Specification for electrical protection relays*”. All other Parts of IEC Publication 255 which are implemented as British Standards form, or will form, Parts of this British Standard.

In the UK, it has been found necessary to supplement this standard in the case of electrical protection relays. The additional requirements for the insulation testing of electrical protection relays are specified in BS 142.

Classification of relay standards. Some Parts of IEC Publication 255 are designated first level documents, i.e. they cover the requirements of all relays within the scope of IEC Technical Committee No. 41, Electrical relays. Other Parts of IEC Publication 255 are designated lower level documents, i.e. they are concerned with the requirements of a family of relays (second level) and of smaller and more specialized groups of relays within such a family (third and fourth level).

According to this system of classification, this is a first level document.

Terminology and conventions. The text of the International Standard has been approved as suitable for publication, without deviation, as a British Standard. Some terminology and certain conventions are not identical with those used in British Standards.

NOTE Where page numbers are quoted with reference to figures in the text, they are IEC page numbers.

Cross-references. Where reference to other Parts of IEC Publication 255 is made, the appropriate Part of this standard or of BS 142:1980 should be consulted, as applicable. Although some Parts of IEC Publication 255 have not been implemented as British Standards, the Committee responsible for the preparation of this standard is satisfied that any particular technical requirements which may have been invoked from those Parts of the International Standard are fully acceptable for the purposes of this British Standard.

Currently, the other Parts of this standard are as follows.

International Standard	Corresponding British Standard
IEC 255-0-20:1974 (first level document)	BS 5992 <i>Electrical relays</i> Part 1:1980 <i>Specification for contact performance of electrical relays</i> (Identical)
IEC 255-1-00:1975 (second level document)	Part 2:1980 <i>Specification for all-or-nothing electrical relays</i> (Identical)

For other International Standards referred to in the text, the corresponding British Standards are as follows.

International Standard	Corresponding British Standard
IEC 144:1963	BS 5420:1977 <i>Specification for degrees of protection of enclosures of switchgear and controlgear for voltages up to and including 1 000 V a.c. and 1 200 V d.c.</i> (Identical)
IEC 348:1978	BS 4743:1971 <i>Safety requirements of electronic measuring apparatus</i> (Technically equivalent)
IEC 414:1973	BS 5458:1977 <i>Specification for safety requirements for indicating and recording electrical measuring instruments and their accessories</i> (Identical)

The technical committee has reviewed the provisions of IEC 38, IEC 60, IEC 65 and IEC 112 and has decided that they are acceptable for use in conjunction with this standard. The related British Standards are BS 77 “*Voltages for a.c. transmission and distribution systems*”, BS 923 “*Guide on high-voltage testing techniques*”, BS 415 “*Specification for safety requirements for mains-operated electronic and related apparatus for household and similar general use*” and BS 3781 “*Method for determining the comparative tracking index of solid insulating material*” respectively.

Reference is also made for information purposes to the IEC International Electrotechnical Vocabulary (I.E.V.), the relevant related British Standard being BS 4727 “*Glossary of electrotechnical, power, telecommunication, electronics, lighting and colour terms*” — Part 1: Group 03 “*Relay terminology*”.

In Appendix E reference is made to IEC 364-1:1972, for which there is no corresponding British Standard. The appropriate information may be found in the “Regulations for the equipment of buildings” issued by the Institution of Electrical Engineers.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 12, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

