
British Standard Specification for

Requirements and application guide for thermal-links

Prescriptions et guide d'application pour protecteurs thermiques
(CEI 691 (1980-1 ère édition, modifiée))

Anforderungen und Anwendungshinweise für Temperatursicherungen
(IEC 691 (1980-1, Ausgabe, modifiziert))

This European Standard EN 60 691 has the status of a British Standard

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National foreword

This British Standard has been prepared under the direction of the Power Electrical Engineering Standards Policy Committee, and is the English language version of EN 60 691 'Requirements and application guide for thermal-links', published by the European Committee for Electrotechnical Standardization (CENELEC). It was derived by that organization from IEC Publication 691 : 1980 'Thermal links'.

On page 2 of EN 60 691 under the heading 'Brief history', reference is made to common modifications. For the sake of clarity these modifications have been incorporated at the appropriate places in the text of IEC Publication 691 : 1980; they are marked by a vertical line at the left-hand margin. The relevant parts of the original IEC text have been quoted as 'INFORMATION' directly after the text of the common modifications.

The British Committee draws the attention of users of this standard to the following safety aspects with regard to the application of thermal-links.

- (a) **Sub-clause 1.1, note 3.** These devices do not generally provide creepage distances or clearances as required by equipment standards for isolation from the mains supply.
- (b) **Clause 4 and clause 8(a).** The method of mounting the thermal device within the equipment to be protected may have a significant effect on the operation of the device. Devices of different physical design are not likely to give identical results.
- (c) **Clause 11.** The tests given for interrupting current do not give a complete guide to the current breaking capacity of the device. Further information may be available from the manufacturer.
- (d) **Annex B.** The operation of these devices will not be identical in different designs: care must be taken to follow any application guide provided.

Cross-references. Where there are British Standards either identical or technically equivalent to international publications quoted in this standard, the relationship is given in national appendix X.

Additional information. On page 2 of the text of EN 60 691 under the title 'Technical text' abbreviations *doa*, *dolp* and *dow* are given. These represent 'date of announcement at national level that the EN exists', 'date of latest publication of the corresponding national standard' and 'date of withdrawal of conflicting requirements in national standards'. These dates have been set by the CENELEC Technical Board.

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

Amendment No. 1
published and effective from 15 January 1993
to BS 7283 : 1990

Specification for requirements and application guide for
thermal-links

NOTE. This amendment implements Corrigendum 1, published in
May 1992, to EN 60691 : 1987.

Revised text

AMD 7314
January 1993

Technical text

At the end of the existing text, insert the following.

‘For products which have complied with the relevant
national standard before 1987-07-01, as shown by the
manufacturer or by a certification body, this previous standard
may continue to apply for production until 1994-07-01.’

UDC 621.316.9—524—777.001.2.001.33.001.4 (083.71)

Key words: Thermally controlled protective devices; requirements; classification; testing; definitions

English version

Requirements and application guide for thermal-links

IEC 691 (1980 - 1st edition, modified)

Prescriptions et guide d'application pour
Protecteurs thermiques
(CEI 691 (1980 - 1ère édition, modifiée))

Anforderungen und Anwendungs-hinweise für
Temperatursicherungen
(IEC 691 (1980 - 1. Ausgabe, modifiziert))

This European Standard was ratified by CENELEC on 27 February 1986. CENELEC members are bound to comply with the requirements of the CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CENELEC Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to CENELEC Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxemburg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

General Secretariat: Rue Bréderode 2, B-1000 Brussels

Brief history

The CENELEC Questionnaire Procedure performed for finding out whether or not IEC 691 (first edition, 1980) could be accepted without textual changes, has shown that CENELEC common modifications became necessary for the acceptance of IEC 691 as European Standard (EN). These modifications, prepared by a Preparatory Working Group which was set up by the Technical Board, were submitted to the CENELEC members for vote and acceptance by CENELEC.

Technical text

The text of the International Standard IEC 691 (first edition, 1980) was approved by CENELEC on 27th February 1986 as a European Standard with agreed common modifications, whereby the title was modified from “Thermal-links” into “Requirements and application guide for thermal-links”. For the sake of clarity, these CENELEC common modifications have been incorporated at the appropriate places in the text of IEC 691 (1980); they are marked by a vertical line at the left-hand margin. The relevant parts of the original IEC text have been quoted as “INFORMATION” directly after the text of the common modifications.

Annexes A and B designated ‘normative’ are part of the body of the standard.

The following dates were fixed:

doa	1986-07-01
dolp/dow	1987-07-01

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INFORMATION as to original IEC text

The Foreword of IEC Publication 691 (1980) is not part of this European Standard; Annex A (normative) and Annex B (normative) are not included in IEC 691 (1980).

REQUIREMENTS AND APPLICATION GUIDE FOR THERMAL-LINKS

INFORMATION as to original IEC text

The Foreword of IEC Publication 691 (1980) is not part of this European Standard. It reads:

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

PREFACE of the IEC Publication 691 (1980)

PREFACE

This standard has been prepared by Sub-Committee 32C: Miniature Fuses, of IEC Technical Committee No. 32: Fuses.

Thermal-links, defined as non-resettable devices functioning once only without refunctioning, are widely applied for the thermal protection of equipment in which, under fault conditions, one or more parts may reach hazardous temperatures.

As these devices have several aspects in common with miniature fuse-links and are used for obtaining a comparable degree of protection, this standard has endeavoured to lay down a number of basic requirements for such devices.

As IEC Technical Committee No. 72: Automatic Controls for Household Use, is concerned with a very extensive range of automatic controls for electrical household appliances, among which devices reacting to temperature, its work has been taken into account during the preparation of this standard.

As a result of the meeting held in Brussels in 1971 and the decision taken by the Committee of Action during its meeting in Brussels in 1971, Sub-Committee 32C was allocated the task of preparing an IEC standard dealing solely with thermal-links.

A first draft was proposed in 1974 and a revised version thereof was discussed at the meeting held in The Hague in 1975.

A second draft was discussed at the meeting held in Nice in 1976.

Comments received from various National Committees together with comments arising from the discussions in Nice revealed the need for a more comprehensive document enabling test laboratories to deal in an efficient and systematic way with these protective components.

A third draft was discussed at the meeting held in Baden-Baden in 1978. As a result of this latter meeting, a draft, Document 32C(Central Office)25, was submitted to the National Committees for approval under the Six Months' Rule in February 1979.

The National Committees of the following countries voted explicitly in favour of publication:

Belgium	France	South Africa (Republic of)
Canada	Germany	Switzerland
Egypt	Japan	Turkey
Finland	Netherlands	United States of America

Note. - Other international publications quoted in this standard are given in Annex A (normative). Where those publications have been implemented as Harmonization Documents (HD), reference to the relevant HDs has been included.

INFORMATION as to original IEC text

It reads: *Other IEC publications quoted in this standard:*

- | | |
|----------------------|--|
| Publication Nos. 65: | Safety Requirements for Mains Operated Electronic and Related Apparatus for Household and Similar General Use |
| 68.2: | Basic Environmental Testing Procedures, Part 2: Tests |
| 112: | Method for Determining the Comparative and Proof Tracking Indices of Solid Insulating Materials under Moist Conditions |
| 260: | Test Enclosures of Non-injection Type for Constant Relative Humidity |