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Irish Standard I.S. EN 60738-1:2006

Thermistors - Directly heated positive temperature coefficient -- Part 1: Generic specification (IEC 60738-1:2006 (EQV))

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Amendment I.S. EN 60738-1:2006/A1:2009

Thermistors - Directly heated positive temperature coefficient -- Part 1: Generic specification (IEC 60738 -1:2006/A1:2009 (EQV))

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EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 60738-1/A1

November 2009

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English version

Thermistors -Directly heated positive temperature coefficient -Part 1: Generic specification

(IEC 60738-1:2006/A1:2009)

Thermistances à coefficient de température positif à chauffage direct -Partie 1: Spécification générique (CEI 60738-1:2006/A1:2009) Direkt geheizte temperaturabhängige Widerstände mit positivem Temperaturkoeffizienten -Teil 1: Fachgrundspezifikation (IEC 60738-1:2006/A1:2009)

This amendment A1 modifies the European Standard EN 60738-1:2006; it was approved by CENELEC on 2009-09-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 Central Secretariat or to any CENELEC member.

This amendment 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 the Central Secretariat has the same status as the official versions.

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CENELEC

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

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EN 60738-1:2006/A1:2009

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Foreword

The text of document 40/1940/CDV, future amendment 1 to IEC 60738-1:2006, prepared by IEC TC 40, Capacitors and resistors for electronic equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 60738-1:2006 on 2009-09-01.

The following dates were fixed:

-	latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2010-06-01
-	latest date by which the national standards conflicting with the amendment have to be withdrawn	(dow)	2012-09-01

Endorsement notice

The text of amendment 1:2009 to the International Standard IEC 60738-1:2006 was approved by CENELEC as an amendment to the European Standard without any modification.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

THERMISTORS – DIRECTLY HEATED POSITIVE TEMPERATURE COEFFICIENT –

Part 1: Generic specification

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committee; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60738-1 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment.

This consolidated version of IEC 60738-1 consists of the third edition (2006) [documents 40/1651/FDIS and 40/1730/RVD] and its amendment 1 (2009) [documents 40/1940/CDV and 40/1999/RVC].

The technical content is therefore identical to the base edition and its amendment and has been prepared for user convenience.

It bears the edition number 3.1.

A vertical line in the margin shows where the base publication has been modified by amendment 1.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

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The QC number that appears on the front cover of this publication is the specification number in the IEC Quality Assessment System for Electronic Components (IECQ).

IEC 60738 consists of the following parts, under the general title *Thermistors – Directly heated positive step-function coefficient*:

- Part 1: Generic specification
- Part 1-1: Blank detail specification Current limiting application Assessment level EZ
- Part 1-2: Blank detail specification Heating element application Assessment level EZ
- Part 1-3: Blank detail specification Inrush current application Assessment level EZ

Part 1-4: Blank detail specification – Sensing application – Assessment level EZ

The committee has decided that the contents of the base publication and its amendments will remain unchanged until the maintenance result date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this standard may be issued at a later date.

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THERMISTORS – DIRECTLY HEATED POSITIVE TEMPERATURE COEFFICIENT –

Part 1: Generic specification

1 Scope

This part of IEC 60738 describes terms and methods of test for positive step-function temperature coefficient thermistors, insulated and non-insulated types typically made from ferro-electric semi-conductor materials.

It establishes standard terms, inspection procedures and methods of test for use in detail specifications for Qualification Approval and for Quality Assessment Systems for electronic components.

2 Normative references

The following referenced documents are indispensable for the application 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 60027 (all parts), Letter symbols to be used in electrical technology

IEC 60050 (all parts), International Electrotechnical Vocabulary (IEV)

IEC 60062, Marking codes for resistors and capacitors

IEC 60068-1:1988, *Environmental testing – Part 1: General and guidance* Amendment 1 (1992)

IEC 60068-2-1:1990, *Environmental testing – Part 2: Tests – Tests A: Cold* Amendment 1 (1993) Amendment 2 (1994)

IEC 60068-2-2:1974, *Environmental testing – Part 2: Tests – Tests B: Dry heat* Amendment 1 (1993)

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

IEC 60068-2-11, Environmental testing – Part 2: Tests – Test Ka: Salt mist

IEC 60068-2-13, Environmental testing – Part 2: Tests – Test M: Low air pressure

IEC 60068-2-14:1984, Environmental testing – Part 2: Tests – Test N: Change of temperature Amendment 1 (1986)

IEC 60068-2-20:1979, *Environmental testing – Part 2: Tests – Test T: Soldering* Amendment 2 (1987)

IEC 60068-2-21, Environmental testing – Part 2-21: Tests – Test U: Robustness of terminations and integral mounting devices



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