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Fixed capacitors for use in electronic equipment –

Part 4: Sectional specification – Aluminium electrolytic capacitors with solid (MnO₂) and non-solid electrolyte

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –

**Part 4: Sectional specification –
Aluminium electrolytic capacitors with solid (MnO₂)
and non-solid electrolyte**

FOREWORD

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International Standard IEC 60384-4 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment.

This fourth edition cancels and replaces the third edition published in 1998 and its amendment 1 (2000). This edition constitutes a minor revision related to tables, figures and references.

The text of this standard is based on the following documents:

CDV	Report on voting
40/1759/CDV	40/1819/RVC

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

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

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).

The list of all parts of the IEC 60384 series, under the general title *Fixed capacitors for use in electronic equipment*, can be found on the IEC website.

The committee has decided that the contents of this publication 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- withdrawn,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 publication may be issued at a later date.

The contents of the corrigendum of June 2007 have been included in this copy.

FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –

Part 4: Sectional specification – Aluminium electrolytic capacitors with solid (MnO₂) and non-solid electrolyte

1 General

1.1 Scope

This part of IEC 60384 applies to aluminium electrolytic capacitors with solid (MnO₂) and non-solid electrolyte primarily intended for d.c. applications for use in electronic equipment. It covers capacitors for long-life applications and capacitors for general-purpose applications.

Capacitors for special-purpose applications may need additional requirements.

Capacitors for fixed surface mount aluminium electrolytic capacitors are not included but they are covered by IEC 60384-18.

1.2 Object

The principal object of this standard is to prescribe preferred ratings and characteristics and to select from IEC 60384-1 the appropriate quality assessment procedures, tests and measuring methods and to give general performance requirements for this type of capacitor. Test severities and requirements prescribed in detail specifications referring to this sectional specification shall be of equal or higher performance level, because lower performance levels are not permitted.

1.3 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 60063, *Preferred number series for resistors and capacitors*

IEC 60068-1, *Environmental testing – Part 1: General and guidance*

IEC 60068-2-17, *Environmental testing – Part 2-17: Tests – Test Q: Sealing*

IEC 60068-2-54, *Environmental testing – Part 2-54: Tests – Test Ta: Solderability testing of electronic components by the wetting balance method*

IEC 60384-1:1999, *Fixed capacitors for use in electronic equipment – Part 1: Generic specification*

IEC 60384-4-1, *Fixed capacitors for use in electronic equipment – Part 4-1: Blank detail specification – Fixed aluminium electrolyte capacitors with non-solid electrolyte – Assessment level EZ*

IEC 60384-4-2, *Fixed capacitors for use in electronic equipment – Part 4-2: Blank detail specification – Fixed aluminium electrolyte capacitors with solid (MnO₂) electrolyte – Assessment level EZ*

ISO 3, *Preferred numbers – Series of preferred numbers*