

# INTERNATIONAL STANDARD

**IEC**  
**60384-4-1**

QC 300301

Second edition  
2000-05

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## Fixed capacitors for use in electronic equipment –

### **Part 4: Blank detail specification – Aluminium electrolytic capacitors with non-solid electrolyte – Assessment level E**

*Condensateurs fixes utilisés dans les équipements  
électroniques –*

*Partie 4:  
Spécification particulière-cadre –  
Condensateurs électrolytiques à l'aluminium  
à électrolyte non solide –  
Niveau d'assurance E*



Reference number  
IEC 60384-4-1:2000(E)

## Numbering

As from 1 January 1997 all IEC publications are issued with a designation in the 60000 series.

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Consolidated versions of some IEC publications including amendments are available. For example, edition numbers 1.0, 1.1 and 1.2 refer, respectively, to the base publication, the base publication incorporating amendment 1 and the base publication incorporating amendments 1 and 2.

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Information on the subjects under consideration and work in progress undertaken by the technical committee which has prepared this publication, as well as the list of publications issued, is to be found at the following IEC sources:

- **IEC web site\***
- **Catalogue of IEC publications**  
Published yearly with regular updates  
(On-line catalogue)\*
- **IEC Bulletin**  
Available both at the IEC web site\* and as a printed periodical

## Terminology, graphical and letter symbols

For general terminology, readers are referred to IEC 60050: *International Electrotechnical Vocabulary* (IEV).

For graphical symbols, and letter symbols and signs approved by the IEC for general use, readers are referred to publications IEC 60027: *Letter symbols to be used in electrical technology*, IEC 60417: *Graphical symbols for use on equipment. Index, survey and compilation of the single sheets* and IEC 60617: *Graphical symbols for diagrams*.

\* See web site address on title page.

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
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PRICE CODE

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*For price, see current catalogue*

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –**

**Part 4: Blank detail specification –  
Aluminium electrolytic capacitors with non-solid electrolyte –  
Assessment level E**

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. Their preparation is entrusted to technical committees; 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. The 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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- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60384-4-1 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment.

This second edition cancels and replaces the first edition published in 1985, amendment 1 (1992) and amendment 2 (1996). This second edition constitutes a technical revision.

The text of this standard is based on the first edition, amendment 1, amendment 2 and the following documents:

FDIS	Report on voting
40/1123/FDIS	40/1169/RVD

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 3.

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

The committee has decided that the contents of this publication will remain unchanged until 2003. 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.

Withdrawn

## FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –

### Part 4: Blank detail specification – Aluminium electrolytic capacitors with non-solid electrolyte – Assessment level E

#### Blank detail specification

A blank detail specification is a supplementary document to the sectional specification and contains requirements for style and layout and minimum content of detail specifications. Detail specifications not complying with these requirements may not be considered as being in accordance with IEC specifications nor shall they be so described.

In the preparation of detail specifications, the contents of 1.4 of the sectional specification shall be taken into account.

The numbers between brackets on the first page correspond to the following information which shall be inserted in the position indicated.

#### *Identification of the detail specification*

- [1] The International Electrotechnical Commission or the National Standards Organization under whose authority the detail specification is drafted.
- [2] The IEC or National Standards number of the detail specification, date of issue and any further information required by the national system.
- [3] The number and issue number of the IEC or national generic specification.
- [4] The IEC number of the blank detail specification.

#### *Identification of the capacitor*

- [5] A short description of the type of capacitor.
- [6] Information on typical construction (when applicable).  
NOTE When the capacitor is not designed for use in printed board applications, this is clearly stated in the detail specification in this position.
- [7] Outline drawing with main dimensions which are of importance for interchangeability and/or reference to the national or international documents for outlines. Alternatively, this drawing may be given in an annex to the detail specification.
- [8] Application or group of applications covered and/or assessment level.  
NOTE The assessment level(s) to be used in a detail specification are selected from 3.5.4 of the sectional specification. This implies that one blank detail specification may be used in combination with several assessment levels, provided the grouping of the tests does not change.
- [9] Reference data on the most important properties, to allow comparison between the various capacitor types.