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**Pritrjeni kondenzatorji za uporabo v elektronski opremi – 23. del: Področna  
specifikacija – Pritrjeni DC kondenzatorji za površinsko namestitev z  
dielektrikom iz metaliziranega polietilenskega naftalatnega filma (IEC 60384-  
23:2005)**

Fixed capacitors for use in electronic equipment – Part 23: Sectional specification –  
Fixed surface mount metallized polyethylene naphthalate film dielectric DC  
capacitors (IEC 60384-23:2005)

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English version

**Fixed capacitors for use in electronic equipment**  
**Part 23: Sectional specification –**  
**Fixed surface mount metallized polyethylene naphthalate**  
**film dielectric DC capacitors**  
(IEC 60384-23:2005)

Condensateurs fixes utilisés  
dans les équipements électroniques  
Partie 23: Spécification intermédiaire  
Condensateurs fixes pour montage  
en surface pour courant continu  
à diélectrique en film de polyéthylène  
naphthalate métallisé  
(CEI 60384-23:2005)

Festkondensatoren zur Verwendung  
in Geräten der Elektronik  
Teil 23: Rahmenspezifikation –  
Oberflächenmontierbare metallisierte  
Polyethylen-Naphthalat-  
Folienkondensatoren für Gleichspannung  
(IEC 60384-23:2005)

SIST EN 60384-23:2005  
This European Standard was approved by CENELEC on 2005-02-01. CENELEC members are bound to comply with the CEN/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 Central Secretariat or to any CENELEC member.

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## CENELEC

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of document 40/1503/FDIS, future edition 1 of IEC 60384-23, 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 EN 60384-23 on 2005-02-01.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2005-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2008-02-01

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 60384-23:2005 was approved by CENELEC as a European Standard without any modification.

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## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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.

NOTE Where an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60062	2004	Marking codes for resistors and capacitors	-	-
IEC 60063	1963	Preferred number series for resistors and capacitors	-	-
A1	1967		-	-
A2	1977		-	-
IEC 60068-1	- 1)	Environmental testing Part 1: General and guidance	EN 60068-1	1994 2)
IEC 60384-1 (mod)	1999	Fixed capacitors for use in electronic equipment Part 1: Generic specification	EN 60384-1 + Corr. October	2001 2001
IEC 60410	-	Sampling plans and procedures for inspection by attributes	-	-
ISO 3	1973	Preferred numbers - Series of preferred numbers	-	-

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1) Undated reference.

2) Valid edition at date of issue.

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CEI  
IEC

60384-23

Première édition  
First edition  
2005-02

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**Condensateurs fixes utilisés  
dans les équipements électroniques –**

**Partie 23:  
Spécification intermédiaire –**

**Condensateurs fixes pour montage en surface  
pour courant continu à diélectrique en film  
de polyéthylène naphthalate métallisé**

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**Fixed capacitors for use in electronic equipment –**

**Part 23:  
Sectional specification –  
Fixed surface mount metallized polyethylene  
naphthalate film dielectric DC capacitors**

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For price, see current catalogue

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –****Part 23: Sectional specification –  
Fixed surface mount metallized polyethylene naphthalate film  
dielectric DC capacitors**

## FOREWORD

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International Standard IEC 60384-23 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment.

This bilingual version (2006-05) replaces the English version.

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

FDIS	Report on voting
40/1503/FDIS	40/1532/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.

The French version of this standard has not been voted upon.

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

IEC 60384 consists of the following parts, under the general title *Fixed capacitors for use in electronic equipment*:

- Part 1: Generic specification
- Part 2: Sectional specification: Fixed metallized polyethylene-terephthalate film dielectric DC capacitors
- Part 3: Sectional specification: Fixed tantalum chip capacitors
- Part 4: Sectional specification: Aluminium electrolytic capacitors with solid and non-solid electrolyte
- Part 5: Sectional specification: Fixed mica dielectric DC capacitors with a rated voltage not exceeding 3000 V - Selection of methods of test and general requirements
- Part 6: Sectional specification: Fixed metallized polycarbonate film dielectric DC capacitors
- Part 7: Sectional specification: Fixed polystyrene film dielectric metal foil DC capacitors
- Part 8: Sectional specification: Fixed capacitors of ceramic dielectric, Class 1
- Part 9: Sectional specification: Fixed capacitors of ceramic dielectric, Class 2
- Part 11: Sectional specification: Fixed polyethylene-terephthalate film dielectric metal foil DC capacitors
- Part 12: Sectional specification: Fixed polycarbonate film dielectric metal foil DC capacitors
- Part 13: Sectional specification: Fixed polypropylene film dielectric metal foil DC capacitors
- Part 14: Sectional specification: Fixed capacitors for electromagnetic interference suppression and connection to the supply mains
- Part 15: Sectional specification: Fixed tantalum capacitors with non-solid or solid electrolyte
- Part 16: Sectional specification: Fixed metallized polypropylene film dielectric DC capacitors
- Part 17: Sectional specification: Fixed metallized polypropylene film dielectric AC and pulse capacitors
- Part 18: Sectional specification: Fixed aluminium electrolytic chip capacitors with solid and non-solid electrolyte
- Part 19: Sectional specification: Fixed metallized polyethylene-terephthalate film dielectric chip DC capacitors
- Part 20: Sectional specification: Fixed metallized polyphenylene sulfide film dielectric chip DC capacitors
- Part 21: Sectional specification: Fixed surface mount multilayer capacitors of ceramic dielectric, Class 1
- Part 22: Sectional specification: Fixed surface mount multilayer capacitors of ceramic dielectric, Class 2
- Part 23: Sectional specification – Fixed surface mount metallized polyethylene naphthalate film dielectric DC capacitors (this publication)

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.

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## FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –

### Part 23: Sectional specification – Fixed surface mount metallized polyethylene naphthalate film dielectric DC capacitors

## 1 General

### 1.1 Scope

This part of IEC 60384 is applicable to fixed surface mount capacitors for direct current, with metallized electrodes and polyethylene naphthalate dielectric for use in electronic equipment. These capacitors have metallized connecting pads or soldering strips and are intended to be mounted directly onto substrates for hybrid circuits or onto printed boards. These capacitors may have "self-healing properties" depending on conditions of use. They are primarily intended for applications where the AC component is small with respect to the rated voltage.

Capacitors for radio interference suppression are not included, but are covered by IEC 60384-14.

### 1.2 Object

The object of this standard is to prescribe preferred ratings and characteristics and to select from IEC 60384-1 (1999), 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, 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 60062: *Marking codes for resistors and capacitors*

IEC 60063:1963, *Preferred number series for resistors and capacitors*  
Amendment 1 (1967)  
Amendment 2 (1977)

IEC 60068-1, *Environmental testing –Part 1: General and guidance*<sup>1</sup>

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

IEC 60410: *Sampling plans and procedures for inspection by attributes*

ISO 3:1973, *Preferred numbers – Series of preferred numbers*

<sup>1</sup> For the tests in the IEC 60068 series of publication, the editions referenced in the applicable test clauses of the generic specification shall be used.