INTERNATIONAL STANDARD

IEC 60384-21-1

First edition
2004-06

Fixed capacitors for use in electronic equipment –

Part 21-1:
Blank detail specification:
Fixed surface mount multilayer capacitors of ceramic dielectric, Class 1 –
Assessment level EZ

Reference number
IEC 60384-21-1:2004(E)

Publication numbering

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

PRICE CODE P

For price, see current catalogue

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –

Part 21-1: Blank detail specification: Fixed surface mount multilayer capacitors of ceramic dielectric, Class 1 – Assessment level EZ

FOREWORD

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International Standard IEC 60384-21-1 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment.

This standard and its related publications (CEI 60384-21, IEC 60384-22 and IEC 60384-22-1) cancel and replace IEC 60384-10 (1989) and its Amendments 1 (1993) and 2 (2000) as well as IEC 60384-10-1 (1989) and its Amendment 1 (1993).

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

FDIS	Report on voting
40/1421/FDIS	40/1452/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 2.

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- withdrawn;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 standard may be issued at a later date.

INTRODUCTION

Blank detail specification

A blank detail specification is a supplementary document to the sectional specification and contains requirements for style, 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 so be described.

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

The numbers between square brackets on the first page of the detail specification 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).

(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.

(9) Reference data on the most important properties, to allow comparison between the various capacitor types.

	(1)	IEC 60384-21-1-ZZZ QC 30XXXX-ZZZ	(2)
ELECTRONIC COMPONENTS OF ASSESSED QUALITY IN ACCORDANCE WITH :	(3)	IEC 60384-21-1 QC30 XXXX	(4)
Outline drawing : (see Table 1) (…angle projection)	(7)	FIXED SURFACE MOUNT MULTILAYER CAPACITORS OF CERAMIC DIELECTRIC, CLASS 1	(5)
			(6)
(Other shapes are permitted within the dimensions given)		Assessment level: EZ	(8)

Information on the availability of components qualified to this detail specification is given in the IECQ 001005.

(9)

FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –

Part 21-1: Blank detail specification: Fixed surface mount multilayer capacitors of ceramic dielectric, Class 1 – Assessment level EZ

1 General data

1.1 Recommended method(s) of mounting (to be inserted)

(See 1.4.2 of IEC 60384-21).

1.2 Dimensions

Table 1 – Case size reference and dimensions

Case size reference	Dimension (mm)						
	L_1	W	H	L_2	L_3	L_4	---

When there is no case size reference, Table 1 may be omitted and the dimensions shall be given in Table 2, which then become Table 1.

The dimensions shall be given as maximum dimensions or as nominal dimensions with a tolerance.

1.3 Ratings and characteristics

Rated capacitance range	(see Table 2)
Tolerance on rated capacitance	
Rated voltage	(see Table 2)
Category voltage (if applicable)	(see Table 2)
Climatic category	
Rated temperature	
Category temperature (if applicable)	
Tangent of loss angle	
Insulation resistance	
Temperature coefficient α:	…10^{-6}/K

Table 2 – Values of capacitance and of voltage related to case sizes

Rated voltage				
Category voltage [1)]				
Rated capacitance (in pF, nF)	Case size	Case size	Case size	Case size

[1)] If different from the rated voltage.

1.4 Normative references

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

IEC 60384-21:2004, *Fixed capacitors for use in electronic equipment – Part 21: Sectional specification: Fixed surface mount multilayer capacitors of ceramic dielectric, Class 1*

1.5 Marking

The marking of the capacitor, if applied, and the package shall be in accordance with the requirements of 1.6 of IEC 60384-21.

NOTE The details of the marking of the component and package shall be given in full in the detail specification.

1.6 Ordering information

Orders for capacitors covered by this specification shall contain, in clear or in coded form, the following minimum information:

a) Rated capacitance.
b) Tolerance on rated capacitance.
c) Rated DC voltage.
d) Temperature coefficient.
e) Number and issue reference of the detail specification and style reference.

1.7 Certified records of released lots

Required/not required.

1.8 Additional information (not for inspection purposes)

1.9 Additional or increased severities or requirements to those specified in the generic and/or sectional specification

NOTE Additions or increased requirements should be specified only when essential.

Table 3 – Other characteristics

This table is to be used for defining characteristics which are additional to or more severe than those given in the sectional specification.