SLOVENSKI STANDARD
SIST EN IEC 60384-22:2019

01-maj-2019

Nadomešča:
SIST EN 60384-22:2012

Fiksni kondenzatorji za uporabo v elektronski opremi - 22. del: Področna specifikacija - Fiksni večplastni kondenzatorji za površinsko namestitev s keramičnim dielektrikom, razred 2 (IEC 60384-22:2019)

Fixed capacitors for use in electronic equipment - Part 22: Sectional specification - Fixed surface mount multilayer capacitors of ceramic dielectric, Class 2 (IEC 60384-22:2019)

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Festkondensatoren zur Verwendung in Geräten der Elektronik - Teil 22: Rahmenspezifikation - Oberflächenmontierbare Vielschichtkeramik-Festkondensatoren, Klasse 2 (IEC 60384-22:2019)

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Condensateurs fixes utilisés dans les équipements électroniques - Partie 22: Spécification intermédiaire - Condensateurs multicouches fixes à diélectriques en céramique pour montage en surface, de Classe 2 (IEC 60384-22:2019)

Ta slovenski standard je istoveten z: **EN IEC 60384-22:2019**

ICS:

31.060.10	Fiksni kondenzatorji	Fixed capacitors

SIST EN IEC 60384-22:2019 **en**

2003-01.Slovenski inštitut za standardizacijo. Razmnoževanje celote ali delov tega standarda ni dovoljeno.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

The text of document 40/2640/FDIS, future edition 3 of IEC 60384-22, prepared by IEC/TC 40 "Capacitors and resistors for electronic equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60384-22:2019.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2019-12-05
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-03-05

This document supersedes EN 60384-22:2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

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The text of the International Standard IEC 60384-22:2019 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60384-14	NOTE	Harmonized as EN 60384-14

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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60063	-	Preferred number series for resistors and capacitors	EN 60063	-
IEC 60068-1	2013	Environmental testing - Part 1: General and guidance	EN 60068-1	2014
IEC 60068-2-58	2015	Environmental testing - Part 2-58: Tests - Test Td: Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)	EN 60068-2-58	2015
+ A1	2017		+ A1	2018
IEC 60384-1	2016	Fixed capacitors for use in electronic equipment - Part 1: Generic specification	EN 60384-1	2016
IEC 61193-2	2007	Quality assessment systems - Part 2: Selection and use of sampling plans for inspection of electronic components and packages	EN 61193-2	2007
ISO 3	1973	Preferred numbers - Series of preferred numbers	-	-

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Fixed capacitors for use in electronic equipment – Part 22: Sectional specification – Fixed surface mount multilayer capacitors of ceramic dielectric, Class 2

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –

Part 22: Sectional specification – Fixed surface mount multilayer capacitors of ceramic dielectric, Class 2

FOREWORD

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International Standard IEC 60384-22 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment.

This third edition cancels and replaces the second edition published in 2011. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) revision of the structure in accordance with ISO/IEC Directives, Part 2:2016 (seventh edition) to the extent practicable, and for harmonizing with IEC 60384-21;
b) deletion of the description on the permissible reactive power in 6.2.2 because it is not appropriate for the purposes of this document;
c) the dimensions of 0201M in Annex A have been added.

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The text of this International Standard is based on the following documents:

FDIS	Report on voting
40/2640/FDIS	40/2652/RVD

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

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

A list of all parts in the IEC 60384 series, published 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 document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

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

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FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –

Part 22: Sectional specification – Fixed surface mount multilayer capacitors of ceramic dielectric, Class 2

1 Scope

This part of IEC 60384 is applicable to fixed unencapsulated surface mount multilayer capacitors of ceramic dielectric, Class 2, for use in electronic equipment. These capacitors have metallized connecting pads or soldering strips and are intended to be mounted on printed boards, or directly onto substrates for hybrid circuits.

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

The object of this document 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 are of equal or higher performance levels; lower performance levels are not permitted.

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2 Normative references

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IEC 60068-1:2013, *Environmental testing – Part 1: General and guidance*

IEC 60068-2-58:2015, *Environmental testing – Part 2-58: Tests – Test Td – Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)*
IEC 60068-2-58:2015/AMD1:2017

IEC 60384-1:2016, *Fixed capacitors for use in electronic equipment – Part 1: Generic specification*

IEC 61193-2:2007, *Quality assessment system – Part 2: Selection and use of sampling plans for inspection of electronic components and packages*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60384-1 and the following apply.

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ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1
surface mount multilayer capacitor
multilayer capacitor whose small dimensions and nature or shape of terminations make it suitable for surface mounting in hybrid circuits and on printed boards

3.2
capacitor of ceramic dielectric, Class 2
capacitor that has a dielectric with a high permittivity and is suitable for by-pass and coupling applications or for frequency-discriminating circuits where low losses and high stability of capacitance are not of major importance

Note 1 to entry: The ceramic dielectric is characterized by a non linear change of capacitance over the category temperature range (see Table 3).

3.3
subclass
maximum percentage change of capacitance within the category temperature range with respect to the capacitance at 20 °C

Note 1 to entry: The subclass may be expressed in code form (see Table 3).

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3.4
category temperature range
ambient temperature range for which the capacitor has been designed to operate continuously

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Note 1 to entry: This is given by the lower and upper category temperature.

3.5
rated temperature
T_R
maximum ambient temperature at which the rated voltage may be continuously applied

3.6
rated voltage
U_R
maximum DC voltage that may be applied continuously to a capacitor at any temperature between the lower category temperature and the rated temperature

Note 1 to entry: The maximum DC voltage is the sum of the DC voltage and peak AC voltage or peak pulse voltage applied to the capacitor.

3.7
category voltage
U_C
maximum voltage that can be applied continuously to a capacitor at its upper category temperature

4 Information to be given in a detail specification

4.1 General

The detail specifications shall be derived from the relevant blank detail specification.