

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Fixed capacitors for use in electronic equipment –  
Part 19: Sectional specification: Fixed metallized polyethylene terephthalate film  
dielectric surface mount DC capacitors**

**Condensateurs fixes utilisés dans les équipements électroniques –  
Partie 19: Spécification intermédiaire. Condensateurs fixes pour montage en  
surface pour courant continu à diélectrique en film de polyéthylène téréphtalate  
métallisé**



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## CONTENTS

FOREWORD.....	5
1 Scope.....	7
2 Normative references .....	7
3 Terms and definition .....	8
4 Preferred ratings and characteristics .....	8
4.1 Preferred climatic categories.....	8
4.2 Preferred values of ratings.....	8
4.2.1 Nominal capacitance ( $C_N$ ) .....	8
4.2.2 Tolerance on nominal capacitance.....	8
4.2.3 Rated voltage ( $U_R$ ).....	9
4.2.4 Category voltage ( $U_C$ ).....	9
4.2.5 Rated temperature.....	9
5 Test and measurement procedures.....	9
5.1 General.....	9
5.2 Mounting.....	9
5.2.1 Initial inspections.....	9
5.2.2 Mounting method.....	9
5.2.3 Final inspections after mounting.....	9
5.3 Visual examination and check of dimensions.....	10
5.3.1 General.....	10
5.3.2 Visual examination and check of dimensions.....	10
5.3.3 Requirements.....	10
5.4 Electrical tests.....	10
5.4.1 Voltage proof.....	10
5.4.2 Capacitance.....	11
5.4.3 Tangent of loss angle (or $\delta$ ).....	11
5.4.4 Insulation resistance.....	12
5.5 Shear test.....	13
5.5.1 General.....	13
5.5.2 Final inspections.....	13
5.6 Substrate bending test.....	13
5.6.1 General.....	13
5.6.2 Initial inspections.....	14
5.6.3 Final inspections and requirements.....	14
5.7 Resistance to soldering heat.....	14
5.7.1 General.....	14
5.7.2 Initial inspections.....	14
5.7.3 Test conditions.....	14
5.7.4 Recovery.....	14
5.7.5 Final inspections and requirements.....	14
5.8 Solderability.....	14
5.8.1 General.....	14
5.8.2 Test conditions.....	15
5.8.3 Final inspections and requirements.....	15
5.9 Rapid change of temperature.....	15
5.9.1 General.....	15

5.9.2	Initial inspections	15
5.9.3	Test conditions	15
5.9.4	Final inspections and requirements	15
5.10	Climatic sequence	15
5.10.1	General	15
5.10.2	Initial inspections	15
5.10.3	Dry heat	15
5.10.4	Damp heat, cyclic, test Db, first cycle	16
5.10.5	Cold	16
5.10.6	Damp heat, cyclic, test Db, remaining cycles	16
5.10.7	Recovery	16
5.10.8	Final inspections and requirements	16
5.11	Damp heat, steady state	16
5.11.1	General	16
5.11.2	Initial inspections	16
5.11.3	Test conditions	16
5.11.4	Recovery	16
5.11.5	Final inspections and requirements	16
5.12	Endurance	17
5.12.1	General	17
5.12.2	Initial inspections	17
5.12.3	Test conditions	17
5.12.4	Final inspections and requirements	17
5.13	Charge and discharge	17
5.13.1	General	17
5.13.2	Initial inspections	17
5.13.3	Test conditions	18
5.13.4	Recovery	18
5.13.5	Final inspections and requirements	18
5.14	Component solvent resistance (if required)	18
5.14.1	General	18
5.14.2	Final inspection and requirements	18
5.15	Solvent resistance of marking (if required)	18
5.15.1	General	18
5.15.2	Final inspections and requirements	18
6	Marking	18
6.1	General	18
6.2	Information for marking	18
6.3	Marking on capacitors	19
6.4	Marking on packaging	19
7	Information to be given in a detail specification	19
7.1	General	19
7.2	Outline drawing and dimensions	19
7.3	Mounting	20
7.4	Ratings and characteristics	20
7.4.1	General	20
7.4.2	Nominal capacitance range	20
7.4.3	Particular characteristics	20
7.4.4	Soldering	20

7.5	Marking.....	20
8	Quality assessment procedures .....	20
8.1	Primary stage of manufacture .....	20
8.2	Structurally similar components .....	20
8.3	Certified test records of released lots.....	20
8.4	Qualification approval procedures.....	20
8.4.1	General .....	20
8.4.2	Qualification approval on the basis of the fixed sample size procedure .....	21
Annex A	(normative) Quality conformance inspection.....	28
A.1	Formation of inspection lots .....	28
A.1.1	Groups A and B inspection .....	28
A.1.2	Group C inspection .....	28
A.2	Test schedule .....	28
A.3	Delayed delivery .....	28
A.4	Assessment levels .....	28
Annex X	(informative) Cross-references to the previous edition of this document.....	35
Bibliography	.....	37
Table 1	– Percentage limit of the rated voltage at AC voltage frequency .....	9
Table 2	– Test voltages.....	10
Table 3	– Tangent of loss angle limits.....	11
Table 4	– Requirements regarding insulation resistance.....	13
Table 5	– Correction factor dependent on temperature .....	13
Table 6	– Endurance test conditions .....	17
Table 7	– Test and sampling plan for qualification approval Assessment level EZ.....	22
Table 8	– Test schedule for qualification approval.....	23
Table A.1	– Lot-by-lot inspection.....	29
Table A.2	– Periodic inspection.....	30
Table X.1	– Cross-references.....	35

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –****Part 19: Sectional specification:  
Fixed metallized polyethylene terephthalate film  
dielectric surface mount DC capacitors**

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IEC 60384-19 has been prepared by IEC technical committee 40: Capacitors and resistors for electronic equipment. It is an International Standard.

This fourth edition cancels and replaces the third edition published in 2015. This edition constitutes a technical revision.

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

- a) revision of all parts of the document based on the ISO/IEC Directives, Part 2:2021, and harmonization with other similar kinds of documents;
- b) the document structure has been organized to follow new sectional specification structure decided in TC 40;
- c) revised tables and Clause 5 to prevent duplications and contradictions;
- d) in Clause 5.2 (Mounting), 5.2.1, 5.2.2 and 5.2.3 have been added;

- e) in Clause 5.5 (Shear test), 5.5.1 and 5.5.2 have been added;
- f) in Clause 5.14 (Component solvent resistance), 5.14.1 and 5.14.2 have been added. In Table 8 and Table A.2, test 5.14 has been moved before 5.7.5 Final inspections in Group 1A and in Subgroup C1;
- g) in Clause 5.15 (Solvent resistance of marking), 5.15.1 and 5.15.2 have been added;
- h) tangent of loss angle measurement has been added to resistance to soldering heat test;
- i) lot-by-lot and periodical inspection tables including requirements have been moved to Annex A;
- j) revised Inspection Level (IL) of A1 subgroup.

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

Draft	Report on voting
40/2950/FDIS	40/2961/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2:2021, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standards/publications](http://www.iec.ch/standards/publications).

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

The committee has decided that the content of this document will remain unchanged until the stability date indicated on the IEC website under [webstore.iec.ch](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.

## FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –

### Part 19: Sectional specification: Fixed metallized polyethylene terephthalate film dielectric surface mount DC capacitors

#### 1 Scope

This part of IEC 60384 is applicable to fixed surface mount capacitors for direct current, with metallized electrodes and polyethylene-terephthalate dielectric for use in electronic equipment. These capacitors have metallized connecting pads or soldering strips and are intended to be mounted directly onto printed boards or onto substrates for hybrid circuits. These capacitors can 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.

This part of IEC 60384 specifies preferred ratings and characteristics, and selects from IEC 60384-1:2021 the appropriate quality assessment procedures, tests and measuring methods, and gives general performance requirements for this type of capacitor. Test severities and requirements specified in detail specifications referring to this sectional specification are of an equal or higher performance level. Lower performance levels are not permitted.

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

#### 2 Normative references

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.

IEC 60062, *Marking codes for resistors and capacitors*

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

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

IEC 60384-1:2021, *Fixed capacitors for use in electronic equipment – Part 1: Generic specification*

IEC 61130-2:2007, *Quality assessment systems – Part 2: Selection and use of sampling plans for inspection of electronic components and packages*

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