

**Fixed capacitors for use in electronic equipment --  
Part 20-1: Blank detail specification - Fixed  
metallized polyphenylene sulfide film dielectric  
surface mount d.c. capacitors - Assessment level  
EZ**

Fixed capacitors for use in electronic equipment -- Part  
20-1: Blank detail specification - Fixed metallized  
polyphenylene sulfide film dielectric surface mount d.c.  
capacitors - Assessment level EZ

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 60384-20-1:2008 sisaldab Euroopa standardi EN 60384-20-1:2008 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 28.04.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on .

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 60384-20-1:2008 consists of the English text of the European standard EN 60384-20-1:2008.

This standard is ratified with the order of Estonian Centre for Standardisation dated 28.04.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text .

The standard is available from Estonian standardisation organisation.

ICS 31.060.20

**Võtmesõnad:** assessment level ez, blank detail specification, fixed capacitors, metallized polyphenylene sulfide film dielectric, surface mount d.c. capacitors

### Standardite reprodutseerimis- ja levitamiseõigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:  
Aru 10 Tallinn 10317 Eesti; [www.evs.ee](http://www.evs.ee); Telefon: 605 5050; E-post: [info@evs.ee](mailto:info@evs.ee)

English version

**Fixed capacitors for use in electronic equipment -  
Part 20-1: Blank detail specification -  
Fixed metallized polyphenylene sulfide film  
dielectric surface mount d.c. capacitors -  
Assessment level EZ**  
(IEC 60384-20-1:2008 + corrigendum 2008)

Condensateurs fixes utilisés  
dans les équipements électroniques -  
Partie 20-1: Spécification  
particulière-cadre -  
Condensateurs fixes pour montage  
en surface pour courant continu  
à diélectrique en film de sulfure  
de polyphénylène métallisé -  
Niveau d'assurance EZ  
(CEI 60384-20-1:2008 +  
corrigendum 2008)

Festkondensatoren zur Verwendung  
in Geräten der Elektronik -  
Teil 20-1: Vordruck  
für Bauartspezifikation -  
Oberflächenmontierbare  
Festkondensatoren für Gleichspannung  
mit metallisierter Polyphenyl-Sulfid-Folie  
als Dielektrikum -  
Bewertungsstufe EZ  
(IEC 60384-20-1:2008 +  
Corrigendum 2008)

This European Standard was approved by CENELEC on 2008-02-01. 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.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

**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 40/1872/FDIS, future edition 2 of IEC 60384-20-1, 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 60384-20-1 on 2008-02-01.

This European Standard supersedes EN 60384-20-1:1999.

EN 60384-20-1:2008 constitutes a minor revision related to tables and references.

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) 2008-11-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2011-02-01

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 60384-20-1:2008 + corrigendum February 2008 was approved by CENELEC as a European Standard without any modification.

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Review generated by EVS

## 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 When 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 60384-1 (mod)	- <sup>1)</sup>	Fixed capacitors for use in electronic equipment - Part 1: Generic specification	EN 60384-1 + corr. October	2001 <sup>2)</sup> 2001
IEC 60384-20	- <sup>1)</sup>	Fixed capacitors for use in electronic equipment - Part 20: Sectional specification - Fixed metallized polyphenylene sulfide film dielectric surface mount d.c. capacitors	EN 60384-20	2008 <sup>2)</sup>

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<sup>1)</sup> Undated reference.

<sup>2)</sup> Valid edition at date of issue.

## FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –

### Part 20-1: Blank detail specification – Fixed metallized polyphenylene sulfide film dielectric surface mount d.c. capacitors – Assessment level EZ

#### 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 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 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).  
When the capacitor is not designed for use in printed-board applications, this shall be 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.

[1]	IEC 60384-20-1XX [2] QC 302001XXXXXX
ELECTRONIC COMPONENTS OF ASSESSED QUALITY IN ACCORDANCE WITH: [3]	IEC 60384-20-1 [4] QC 302001 FIXED METALLIZED [5] POLYETHYLENE SULFIDE FILM DIELECTRIC SURFACE MOUNT D.C. CAPACITORS
Outline drawing: (see Table 1) [...angle projection] [7]	[6] Assessment level(s): EZ [8]
[Other shapes are permitted within the dimensions given.]	

Information on the availability of components qualified to this detail specification is given in the Register of Approvals

(9)

**1 General data**

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

See 1.4.2 of IEC 60384-20.

**1.2 Dimensions**

**Table 1 – Dimensions**

Case size reference	Dimensions mm						
	$L_1$	$W_1$	$H_1$	$L_2$	$L_3$	$L_4$	....

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

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

### 1.3 Ratings and characteristics

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	
Maximum a.c. voltage (if applicable)	
Maximum pulse load (if applicable)	
Tangent of loss angle	
Insulation resistance	

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

Rated voltage				
Category voltage <sup>a</sup>				
Rated capacitance (in nF and/or $\mu$ F)	Case size	Case size	Case size	Case size
<sup>a</sup> If different from the rated voltage.				

### 1.4 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 60384-1, *Fixed capacitors for use in electronic equipment – Part 1: Generic specification*

IEC 60384-20, *Fixed capacitors for use in electronic equipment – Part 20: Sectional specification – Fixed metallized polyphenylene sulfide film dielectric surface mount d.c. capacitors*

### 1.5 Marking

The marking of the capacitor and the package shall be in accordance with the requirements of 1.6 of IEC 60384-20.

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:

- rated capacitance;
- tolerance on rated capacitance;
- rated d.c. voltage;
- number and issue reference of the detail specification and style reference;
- packaging instructions.