

STN	Nepremenné kondenzátory na použitie v elektronických zariadeniach. Časť 14-1: Vzorová predmetová špecifikácia. Nepremenné kondenzátory na potlačenie elektromagnetického rušenia a pripojenie na rozvodnú sieť. Úroveň hodnotenia DZ.	STN EN 60384-14-1
		35 8282

Fixed capacitors for use in electronic equipment - Part 14-1: Blank detail specification - Fixed capacitors for electromagnetic interference suppression and connection to the supply mains - Assessment level DZ

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 09/16

Obsahuje: EN 60384-14-1:2016, IEC 60384-14-1:2016

Oznámením tejto normy sa od 23.02.2019 ruší
STN EN 60384-14-1 (35 8282) z marca 2006

STN EN 60384-14-3 (35 8282) z júna 2005

123464

Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, 2016
Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

EUROPEAN STANDARD

EN 60384-14-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2016

ICS 31.060.10

Supersedes EN 60384-14-1:2005, EN 60384-14-3:2004

English Version

Fixed capacitors for use in electronic equipment -
Part 14-1: Blank detail specification - Fixed capacitors for
electromagnetic interference suppression and connection to the
supply mains - Assessment level DZ
(IEC 60384-14-1:2016)

Condensateurs fixes utilisés dans les équipements
électroniques - Partie 14-1: Spécification particulière-cadre -
Condensateurs fixes d'antiparasitage et raccordement à
l'alimentation - Niveau d'assurance DZ
(IEC 60384-14-1:2016)

Festkondensatoren zur Verwendung in Geräten der
Elektronik - Teil 14-1: Vordruck für Bauartspezifikation -
Festkondensatoren zur Unterdrückung elektromagnetischer
Störungen, geeignet für Netzbetrieb - Bewertungsstufe DZ
(IEC 60384-14-1:2016)

This European Standard was approved by CENELEC on 2016-02-23. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

EN 60384-14-1:2016**European foreword**

The text of document 40/2421/FDIS, future edition 3 of IEC 60384-14-1, 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 60384-14-1:2016.

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) 2016-11-23
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2019-02-23

This document supersedes EN 60384-14-1:2005 and EN 60384-14-3:2004.

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

Endorsement notice

The text of the International Standard IEC 60384-14-1:2016 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When 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

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60384-1	2016	Fixed capacitors for use in electronic equipment - Part 1: Generic specification	EN 60384-1	201X ¹⁾
IEC 60384-14	2013	Fixed capacitors for use in electronic equipment - Part 14: Sectional specification - Fixed capacitors for electromagnetic interference suppression and connection to the supply mains	EN 60384-14	2013
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

¹⁾ To be published.



INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Fixed capacitors for use in electronic equipment –
Part 14-1: Blank detail specification – Fixed capacitors for electromagnetic
interference suppression and connection to the supply mains – Assessment
level DZ**

**Condensateurs fixes utilisés dans les équipements électroniques –
Partie 14-1: Spécification particulière-cadre – Condensateurs fixes
d'antiparasitage et raccordement à l'alimentation – Niveau d'assurance DZ**





THIS PUBLICATION IS COPYRIGHT PROTECTED
Copyright © 2016 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

Droits de reproduction réservés. Sauf indication contraire, aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'IEC ou du Comité national de l'IEC du pays du demandeur. Si vous avez des questions sur le copyright de l'IEC ou si vous désirez obtenir des droits supplémentaires sur cette publication, utilisez les coordonnées ci-après ou contactez le Comité national de l'IEC de votre pays de résidence.

IEC Central Office
 3, rue de Varembe
 CH-1211 Geneva 20
 Switzerland

Tel.: +41 22 919 02 11
 Fax: +41 22 919 03 00
info@iec.ch
www.iec.ch

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigenda or an amendment might have been published.

IEC Catalogue - webstore.iec.ch/catalogue

The stand-alone application for consulting the entire bibliographical information on IEC International Standards, Technical Specifications, Technical Reports and other documents. Available for PC, Mac OS, Android Tablets and iPad.

IEC publications search - www.iec.ch/searchpub

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and also once a month by email.

Electropedia - www.electropedia.org

The world's leading online dictionary of electronic and electrical terms containing 20 000 terms and definitions in English and French, with equivalent terms in 15 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

IEC Glossary - std.iec.ch/glossary

65 000 electrotechnical terminology entries in English and French extracted from the Terms and Definitions clause of IEC publications issued since 2002. Some entries have been collected from earlier publications of IEC TC 37, 77, 86 and CISPR.

IEC Customer Service Centre - webstore.iec.ch/csc

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: csc@iec.ch.

A propos de l'IEC

La Commission Electrotechnique Internationale (IEC) est la première organisation mondiale qui élabore et publie des Normes internationales pour tout ce qui a trait à l'électricité, à l'électronique et aux technologies apparentées.

A propos des publications IEC

Le contenu technique des publications IEC est constamment revu. Veuillez vous assurer que vous possédez l'édition la plus récente, un corrigendum ou amendement peut avoir été publié.

Catalogue IEC - webstore.iec.ch/catalogue

Application autonome pour consulter tous les renseignements bibliographiques sur les Normes internationales, Spécifications techniques, Rapports techniques et autres documents de l'IEC. Disponible pour PC, Mac OS, tablettes Android et iPad.

Recherche de publications IEC - www.iec.ch/searchpub

La recherche avancée permet de trouver des publications IEC en utilisant différents critères (numéro de référence, texte, comité d'études,...). Elle donne aussi des informations sur les projets et les publications remplacées ou retirées.

IEC Just Published - webstore.iec.ch/justpublished

Restez informé sur les nouvelles publications IEC. Just Published détaille les nouvelles publications parues. Disponible en ligne et aussi une fois par mois par email.

Electropedia - www.electropedia.org

Le premier dictionnaire en ligne de termes électroniques et électriques. Il contient 20 000 termes et définitions en anglais et en français, ainsi que les termes équivalents dans 15 langues additionnelles. Egalement appelé Vocabulaire Electrotechnique International (IEV) en ligne.

Glossaire IEC - std.iec.ch/glossary

65 000 entrées terminologiques électrotechniques, en anglais et en français, extraites des articles Termes et Définitions des publications IEC parues depuis 2002. Plus certaines entrées antérieures extraites des publications des CE 37, 77, 86 et CISPR de l'IEC.

Service Clients - webstore.iec.ch/csc

Si vous désirez nous donner des commentaires sur cette publication ou si vous avez des questions contactez-nous: csc@iec.ch.



INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Fixed capacitors for use in electronic equipment –
Part 14-1: Blank detail specification – Fixed capacitors for electromagnetic
interference suppression and connection to the supply mains – Assessment
level DZ**

**Condensateurs fixes utilisés dans les équipements électroniques –
Partie 14-1: Spécification particulière-cadre – Condensateurs fixes
d'antiparasitage et raccordement à l'alimentation – Niveau d'assurance DZ**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 31.060.10

ISBN 978-2-8322-3126-5

**Warning! Make sure that you obtained this publication from an authorized distributor.
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

CONTENTS

FOREWORD	3
INTRODUCTION	5
0 Blank detail specification	5
0.1 General	5
0.2 Identification of the detail specification	5
0.3 Identification of the capacitor	5
1 General data	7
1.1 Recommended method(s) of mounting (to be inserted)	7
1.2 Dimensions	7
1.3 Ratings and characteristics	7
1.4 Normative references	8
1.5 Marking	8
1.6 Ordering information	8
1.7 Certified records of released lots	8
1.8 Additional information (not for inspection purposes)	8
1.9 Additional or increased severities or requirements to those specified in the generic and/or sectional specification	8
2 Inspection requirements	8
Annex A (normative) Declaration of design	14
Table 1 – Dimensions	7
Table 2 – Values of capacitance related to voltages and case sizes	7
Table 3 – Other characteristics	8
Table 4 – Test schedule for lot-by-lot tests (Groups A and B inspection) – Assessment level DZ	9
Table 5 – Test schedule for periodic tests (Group C inspection) – Assessment level DZ	10

INTERNATIONAL ELECTROTECHNICAL COMMISSION

FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –**Part 14-1: Blank detail specification –
Fixed capacitors for electromagnetic interference suppression
and connection to the supply mains – Assessment level DZ**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60384-14-1 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 2005 and constitutes a technical revision.

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

The assessment level has been changed to DZ (zero acceptance). The contents is the same as in old IEC 60384-14-3 with editorial changes. IEC 60384-14-3 has been deleted.

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

FDIS	Report on voting
40/2421/FDIS	40/2445/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.

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.

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

This International Standard is to be used in conjunction with IEC 60384-1:2016.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website 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.

INTRODUCTION

0 Blank detail specification

0.1 General

This blank detail specification forms the basis for a uniform procedure for a common international safety mark. It implements the approval schedule for safety tests in IEC 60384-14, requires a declaration of design for parameters relevant to safety and indicates conformance tests to be conducted on every lot prior to its release and requalification tests depending on changes to the declared design.

This specification offers the assessment level DZ (zero defects).

The use of IEC 60384-14-1, may be more appropriate for components manufactured in mass production, whereas the employment of IEC 60384-14-2 (safety tests only) may be necessary in those cases where approval and requalification tests contribute considerably to the costs of the product.

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.

0.2 Identification of the detail specification

The first page of the detail specification should have the layout recommended on the next page of this blank detail specification. The numbers between square brackets correspond to the following information which shall be inserted at the position indicated:

- [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, or sectional specification, as relevant.
- [4] If different from the IEC number, the national number of the detail specification, date of issue and any further information required by the national system, together with any amendment numbers.

0.3 Identification of the capacitor

- [5] A short description of the type of capacitor or range of capacitors. The text should be suitable for an entry in the IECQ register of approvals.
- [6] Information on typical construction (when applicable). The text should be suitable for an entry in the IECQ register of approvals.
- [7] Outline drawing with main dimensions which are of importance for interchangeability and/or reference to the appropriate national or international documents for outlines. Alternatively, the drawing may be given in an annex to the detail specification, but [7] should always contain an illustration of the general outer appearance of the component.
- [8] The level(s) of quality assessment covered by the detail specification, as appropriate.
- [9] Reference data giving information on the most important properties of the component which allow comparison between the various component types intended for the same or similar applications.

	[1]	IEC 60384-14-1-XXX	[2]
ELECTRONIC COMPONENTS OF ASSESSED QUALITY IN ACCORDANCE WITH: IEC 60384-1 IEC 60384-14	[3]	IEC 60384-14-1	[4]
Outline drawing: [see Table 1] [first angle projection] [Other shapes are permitted within the dimensions given]	[7]	FIXED CAPACITORS FOR ELECTROMAGNETIC INTERFERENCE SUPPRESSION AND CONNECTION TO THE SUPPLY MAINS (ASSESSMENT LEVEL DZ)	[5]
		TYPICAL CONSTRUCTION (Examples)	[6]
		Class/subclass	[8]
For references [1] to [4], see 0.2. For references [5] to [8], see 0.3.			

Information on the availability of components qualified to this detail specification is given in the Qualified products list.	[9]
For reference [9], see 0.3.	

FIXED CAPACITORS FOR USE IN ELECTRONIC EQUIPMENT –

Part 14-1: Blank detail specification – Fixed capacitors for electromagnetic interference suppression and connection to the supply mains – Assessment level DZ

1 General data

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

See IEC 60384-14:2013, 1.4.2.

1.2 Dimensions

The dimensions are given in Table 1.

Table 1 – Dimensions

Case size reference	Dimensions 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 becomes Table 1.

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

1.3 Ratings and characteristics

Ratings and characteristics are as listed below.

- Capacitance range (see Table 2)
- Tolerance on nominal capacitance
- Rated voltage (see Table 2)
- Climatic category
- Rated temperature
- Tangent of loss angle
- Insulation resistance

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

Rated voltage				
	Case size	Case size	Case size	Case size
Nominal capacitance pF and/or nF				

1.4 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

IEC 60384-14:2013, *Fixed capacitors for use in electronic equipment – Part 14: Sectional specification – Fixed capacitors for electromagnetic interference suppression and connection to the supply mains*

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

koniec náhľadu – text ďalej pokračuje v platenej verzii STN