



SLOVENSKI STANDARD
SIST EN IEC 62884-3:2018
01-julij-2018

**Merilne tehnike za piezoelektrične, dielektrične in elektrostatične oscilatorje - 3.
del: Preskusne metode za frekvenčno staranje (IEC 62884-3:2018)**

Measurement techniques of piezoelectric, dielectric and electrostatic oscillators - Part 3:
Frequency aging test methods (IEC 62884-3:2018)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: **EN IEC 62884-3:2018**
<https://standards.iteh.ai/catalog/standards/sist/381a1965-a095-4165-959e-3452ea9dc44e/sist-en-iec-62884-3-2018>

ICS:

31.140 Piezoelektrične naprave Piezoelectric devices

SIST EN IEC 62884-3:2018 **en**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN IEC 62884-3:2018

<https://standards.iteh.ai/catalog/standards/sist/38faf963-a095-4f63-959e-3452ea9dc44e/sist-en-iec-62884-3-2018>

EUROPEAN STANDARD

EN IEC 62884-3

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2018

ICS 31.140

English Version

Measurement techniques of piezoelectric, dielectric and electrostatic oscillators - Part 3: Frequency aging test methods (IEC 62884-3:2018)

Techniques de mesure des oscillateurs piézoélectriques, diélectriques et électrostatiques – Partie 3 : Méthodes d'essai de vieillissement en fréquence
(IEC 62884-3:2018)

Messverfahren für piezoelektrische, dielektrische und elektrostatische Oszillatoren - Teil 3: Prüfverfahren für die Frequenzalterung
(IEC 62884-3:2018)

This European Standard was approved by CENELEC on 2018-04-26. 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.

SIST EN IEC 62884-3:2018

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, Serbia, 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: Rue de la Science 23, B-1040 Brussels

EN IEC 62884-3:2018 (E)**European foreword**

The text of document 49/1248/CDV, future edition 1 of IEC 62884-3, prepared by IEC/TC 49 "Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62884-3:2018.

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) 2019-01-26
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2021-04-26

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.

Endorsement notice

The text of the International Standard IEC 62884-3:2018 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60068-1	NOTE	Harmonized as EN 60068-1.
IEC 60068-2-14	NOTE	Harmonized as EN 60068-2-14.
IEC 60679-4	NOTE	Harmonized as EN 60679-4.
IEC 60679-5	NOTE	Harmonized as EN 60679-5.
IEC 61760-1	NOTE	Harmonized as EN 61760-1.

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 60027	series	Letter symbols to be used in electrical technology -- Part 1: General	EN 60027	series
IEC 60050-561	-	International Electrotechnical Vocabulary (IEV) -- Chapter 561: Piezoelectric devices for frequency control and selection	-	-
IEC 60469	-	Transitions, pulses and related waveforms - Terms, definitions and algorithms	EN 60469	-
IEC 60617	-	Standard data element types with associated classification scheme for electric components -- Part 4: IEC reference collection fo standard data element types and component classes	-	-
IEC 60679-1	-	Piezoelectric, dielectric and electrostatic oscillators of assessed quality - Part 1 : Generic specification	EN 60679-1	-
IEC 62884-1	2017	Measurement techniques of piezoelectric, dielectric and electrostatic oscillators - Part 1: Basic methods for the measurement	EN 62884-1	2017
ISO 80000-1	-	Quantities and units -- Part 1: General	EN ISO 80000-1	-

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN IEC 62884-3:2018

<https://standards.iteh.ai/catalog/standards/sist/38faf963-a095-4f63-959e-3452ea9dc44e/sist-en-iec-62884-3-2018>



IEC 62884-3

Edition 1.0 2018-03

INTERNATIONAL STANDARD

**Measurement techniques of piezoelectric, dielectric and electrostatic
oscillators –
Part 3: Frequency aging test methods**

STANDARD PREVIEW
(standards.iteh.ai)
SIST EN IEC 62884-3:2018
<https://standards.iteh.ai/catalog/standards/sist/38faf963-a095-4f63-959e-3452ea9dc44e/sist-en-iec-62884-3-2018>

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 31.140

ISBN 978-2-8322-5494-3

Warning! Make sure that you obtained this publication from an authorized distributor.

CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope.....	6
2 Normative references	6
3 Terms and definitions, units and symbols	6
3.1 Terms and definitions.....	6
3.2 Units and symbols.....	7
4 Frequency aging test.....	7
4.1 General.....	7
4.2 Test and measurement conditions.....	7
4.2.1 General	7
4.2.2 Active aging test (non-destructive).....	7
4.2.3 Data fitting.....	8
4.2.4 Accelerated aging (non-active)	9
4.2.5 Extended aging.....	10
Annex A (normative) Experimental verification of the frequency aging performance	11
Bibliography.....	13
Table 1 – Measurement parameters depending on the oscillator type	8
Table 2 – Time acceleration factors for $E_a = 0,38$ eV	10
Table A.1 – Procedure for the determination of the frequency aging parameters	12

iTeh STANDARD PREVIEW
 (standards.iteh.ai)
 SIST EN IEC 62884-3:2018
<https://standards.iteh.ai/catalog/standards/sist/38fa963-a095-4f63-959e-3452ea9dc44e/sist-en-iec-62884-3-2018>

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**MEASUREMENT TECHNIQUES OF PIEZOELECTRIC,
DIELECTRIC AND ELECTROSTATIC OSCILLATORS –****Part 3: Frequency aging test methods**

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.
<https://standards.iteh.ai/catalog/standards/sist/38fa963-a095-4f63-959e-3452aa9dc44e/sist-en-iec-62884-3-2018>
- 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 62884-3 has been prepared by IEC technical committee 49: Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection.

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

CDV	Report on voting
49/1248/CDV	49/1272/RVC

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.