Irish Standard
I.S. EN IEC 60216-3:2021

Electrical insulating materials - Thermal endurance properties - Part 3: Instructions for calculating thermal endurance characteristics

I.S. EN IEC 60216-3:2021

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN IEC 60216-3:2021 is the adopted Irish version of the European Document EN IEC 60216-3:2021, Electrical insulating materials - Thermal endurance properties - Part 3: Instructions for calculating thermal endurance characteristics

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 60216-3

April 2021

ICS 17.220.99; 19.020

Supersedes EN 60216-3:2006 and all of its amendments and corrigenda (if any)

English Version

Electrical insulating materials - Thermal endurance properties - Part 3: Instructions for calculating thermal endurance characteristics (IEC 60216-3:2021)

Matériaux isolants électriques - Propriétés d'endurance thermique - Partie 3: Instructions pour le calcul des caractéristiques d'endurance thermique (IEC 60216-3:2021)

Elektroisolierstoffe - Eigenschaften hinsichtlich des thermischen Langzeitverhaltens - Teil 3: Anweisungen zur Berechnung thermischer Langzeitkennwerte (IEC 60216-3:2021)

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Comité Européen de Normalisation Electrotechnique
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document 112/475/CDV, future edition 3 of IEC 60216-3, prepared by IEC/TC 112 "Evaluation and qualification of electrical insulating materials and systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60216-3:2021.

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) 2022-01-20
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-04-20

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

IEC 60216-2 NOTE Harmonized as EN 60216-2

IEC 60216-5 NOTE Harmonized as EN 60216-5

IEC 60216-6 NOTE Harmonized as EN 60216-6

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 60216-1	2013	Electrical insulating materials - Thermal endurance properties - Part 1: Ageing procedures and evaluation of test results	EN 60216-1	2013

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IEC 60216-3

Edition 3.0 2021-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Electrical insulating materials – Thermal endurance properties – Part 3: Instructions for calculating thermal endurance characteristics

Matériaux isolants électriques – Propriétés d'endurance thermique – Partie 3: Instructions pour le calcul des caractéristiques d'endurance thermique

IEC 60216-3:2021-03(en-fr)

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IEC 60216-3

Edition 3.0 2021-03

INTERNATIONAL STANDARD

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Electrical insulating materials – Thermal endurance properties – Part 3: Instructions for calculating thermal endurance characteristics

Matériaux isolants électriques – Propriétés d'endurance thermique – Partie 3: Instructions pour le calcul des caractéristiques d'endurance thermique

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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CONTENTS

FOREWORD 4
1 Scope 6
2 Normative references 6
3 Terms, definitions, symbols and abbreviated terms 6
3.1 Terms and definitions 6
3.2 Symbols and abbreviated terms 8
4 Principles of calculations 10
4.1 General principles 10
4.2 Preliminary calculations 10
4.2.1 General 10
4.2.2 Non-destructive tests 11
4.2.3 Proof tests 11
4.2.4 Destructive tests 11
4.3 Variance calculations 12
4.4 Statistical tests 12
4.5 Results 13
5 Requirements and recommendations for valid calculations 13
5.1 Requirements for experimental data 13
5.1.1 General 13
5.1.2 Non-destructive tests 13
5.1.3 Proof tests 13
5.1.4 Destructive tests 13
5.2 Precision of calculations 14
6 Calculation procedures 14
6.1 Preliminary calculations 14
6.1.1 Temperatures and x-values 14
6.1.2 Non-destructive tests 14
6.1.3 Proof tests 14
6.1.4 Destructive tests 14
6.1.5 Incomplete data 18
6.2 Main calculations 18
6.2.1 Calculation of group means and variances 18
6.2.2 General means and variances 19
6.2.3 Regression calculations 20
6.3 Statistical tests 21
6.3.1 Variance equality test 21
6.3.2 Linearity test (F-test) 21
6.3.3 Confidence limits of X and Y estimates 22
6.4 Thermal endurance graph 23
7 Calculation and requirements for results 23
7.1 Calculation of thermal endurance characteristics 23
7.2 Summary of statistical tests and reporting 24
7.3 Reporting of results 24
8 Test report 24
Annex A (normative) Decision flow chart 26

Annex B (normative) Decision table 27
Annex C (informative) Statistical tables 28
Annex D (informative) Worked examples 38
Annex E (informative) Computer program 46
E.1 General 46
E.1.1 Overview 46
E.1.2 Convenience program execution 47
E.2 Structure of data files used by the program 48
E.2.1 Text file formats 48
E.2.2 Office Open XML formats 50
E.3 Data files for computer program 51
E.4 Output files and graph 56
Bibliography 57

Figure 1 – Example of groups selection 15
Figure A.1 – Decision flow chart 26
Figure D.1 – Thermal endurance graph 42
Figure D.2 – Example 3: Property-time graph 44
Figure E.1 – Shortcut property dialog for program launch 47
Figure E.2 – Thermal endurance graph of example N3 56

Table B.1 – Decisions and actions according to tests 27
Table C.1 – Coefficients for censored data calculations 28
Table C.2 – Fractiles of the F-distribution, $F(0{,}95, f_n, f_d)$ 34
Table C.3 – Fractiles of the F-distribution, $F(0{,}995, f_n, f_d)$ 35
Table C.4 – Fractiles of the t-distribution, $t_{0,95}$ 37
Table C.5 – Fractiles of the χ^2-distribution 37
Table D.1 – Worked example 1 – Censored data (proof tests: file CENEX3.DTA) 38
Table D.2 – Worked example 2 – Complete data (non-destructive tests: file TEST2.DTA) 40
Table D.3 – Worked example 3 – Destructive tests 43
Table D.4 – Worked example 3 – Selection of groups 44
Table E.1 – Non-destructive test data 49
Table E.2 – Destructive test data 49
Table E.3 – Non-destructive test data 50
Table E.4 – Destructive test data 50

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ELECTRICAL INSULATING MATERIALS – THERMAL ENDURANCE PROPERTIES –

Part 3: Instructions for calculating thermal endurance characteristics

FOREWORD

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IEC 60216-3 has been prepared by IEC technical committee 112: Evaluation and qualification of electrical insulating materials and systems. It is an International Standard.

This third edition cancels and replaces the second edition published in 2006. This edition constitutes a technical revision.

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

a) a new computer program has been included;
b) Annex E " has been completely reworked.

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

Draft	Report on voting
112/475/CDV	112/495/RVC

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, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts in the IEC 60216 series, published under the general title *Electrical insulating materials – Thermal endurance properties*, 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 webstore.iec.ch in the data related to the specific document. At this date, the document will be

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ELECTRICAL INSULATING MATERIALS – THERMAL ENDURANCE PROPERTIES –

Part 3: Instructions for calculating thermal endurance characteristics

1 Scope

This part of IEC 60216 specifies the calculation procedures used for deriving thermal endurance characteristics from experimental data obtained in accordance with the instructions of IEC 60216-1 and IEC 60216-2 [1][1], using fixed ageing temperatures and variable ageing times.

The experimental data can be obtained using non-destructive, destructive or proof tests. Data obtained from non-destructive or proof tests can be incomplete, in that it is possible that measurement of times taken to reach the end-point will have been terminated at some point after the median time but before all specimens have reached end-point.

The procedures are illustrated by worked examples, and suitable computer programs are recommended to facilitate the calculations.

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 60216-1:2013, *Electrical insulating materials – Thermal endurance properties – Part 1: Ageing procedures and evaluation of test results*

3 Terms, definitions, symbols and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the following definitions apply.

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 https://www.iso.org/obp

3.1.1
ordered data
group of data arranged in sequence so that in the appropriate direction through the sequence each member is greater than, or equal to, its predecessor

Note 1 to entry: In this document, ascending order implies that the data is ordered in this way, the first being the smallest.

[1] Numbers in square brackets refer to the bibliography.