BS EN 62068:2013

BSI Standards Publication

Electrical insulating materials and systems — General method of evaluation of electrical endurance under repetitive voltage impulses

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National foreword

This British Standard is the UK implementation of EN 62068:2013. It is identical to IEC 62068:2013. It supersedes BS EN 62068-1:2003 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GEL/112, Evaluation and qualification of electrical insulating materials and systems.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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Date	Text affected

EUROPEAN STANDARD

NORME EUROPÉENNE

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EN 62068

September 2013

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Supersedes EN 62068-1:2003

English version

Electrical insulating materials and systems - General method of evaluation of electrical endurance under repetitive voltage impulses

(IEC 62068:2013)

Matériaux et systèmes d'isolation électriques -
Méthode générale d'évaluation de l'endurance électrique soumise à des impulsions de tension appliquées périodiquement
(CEI 62068:2013)

Elektrische Isolierstoffe und Isoliersysteme -
Allgemeines Verfahren zur Bewertung der elektrischen Lebensdauer bei Beanspruchung mit sich wiederholenden Spannungsimpulsen
(IEC 62068:2013)

CENELEC

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

Foreword

The text of document 112/234/FDIS, future edition 1 of IEC 62068, 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 62068:2013.

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)	2014-03-27
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2016-04-15

This document supersedes EN 62068-1:2003.

EN 62068:2013 includes the following significant technical changes with respect to EN 62068-1:2003:

The main changes with regard to EN 62068-1:2003 concern the terms and definitions which are now aligned, in part, on IEC/TS 61934 and CLC/TS 60034-18-42.

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 62068:2013 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/TS 60034-18-42:2008	NOTE	Harmonised as CLC/TS 60034-18-42:2011 (not modified).
IEC 60505:2011	NOTE	Harmonised as EN 60505:2011 (not modified).
IEC 60270:2000	NOTE	Harmonised as EN 60270:2001 (not modified).

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 When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 62539	-	Guide for the statistical analysis of electrical insulation breakdown data	-	-

CONTENTS

ELECTRICAL INSULATING MATERIALS AND SYSTEMS – GENERAL METHOD OF EVALUATION OF ELECTRICAL ENDURANCE UNDER REPETITIVE VOLTAGE IMPULSES

1 Scope

This International Standard applies to electrical equipment, regardless of voltage, containing an insulation system, which is

– connected to an electronic power supply, and

– requires an evaluation of insulation endurance under repetitive voltage impulses.

This standard proposes a general test procedure to facilitate screening of electrical insulating materials (EIM) and systems (EIS) and to achieve a relative evaluation of insulation endurance under conditions of repetitive impulses.

2 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 62539, *Guide for the statistical analysis of electrical insulation breakdown data*

3 Terms and definitions

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

3.1
electrical insulating material
EIM
material with negligibly low electric conductivity, used to separate conducting parts at different electrical potentials

[SOURCE: IEC 60505:2011, definition 3.1.2 [3] [2]

3.2
electrical insulation system
EIS
insulating structure containing one or more electrical insulating materials (EIM) together with associated conducting parts employed in an electrotechnical device

[SOURCE: IEC 60505:2011, definition 3.1.1 [2]

3.3
candidate EIS
EIS under evaluation to determine its electrical endurance when exposed to repetitive voltage impulses

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2 Figures in square brackets refer to the Bibliography.