SLOVENSKI STANDARD
SIST EN IEC 61857-32:2020

01-marec-2020

Sistemi električne izolacije - Postopki za toplotno vrednotenje - 32. del: Večfaktorsko vrednotenje s povečanimi faktorji med diagnostičnim preskušanjem (IEC 61857-32:2019)

Electrical insulation systems - Procedures for thermal evaluation - Part 32: Multifactor evaluation with increased factors during diagnostic testing (IEC 61857-32:2019)

Elektrische Isoliersysteme - Verfahren zur thermischen Bewertung - Teil 32: Multifaktor-Bewertung mit erhöhten Faktoren während der diagnostischen Prüfung (IEC 61857-32:2019)

Systèmes d'isolation électrique - Procédures d'évaluation thermique - Partie 32: Évaluation multifactorielle avec facteurs augmentés pendant les essais de diagnostic (IEC 61857-32:2019)

Ta slovenski standard je istoveten z: **EN IEC 61857-32:2019**

ICS:

29.080.30	Izolacijski sistemi	Insulation systems

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EUROPEAN STANDARD

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English Version

Electrical insulation systems - Procedures for thermal evaluation - Part 32: Multifactor evaluation with increased factors during diagnostic testing (IEC 61857-32:2019)

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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

European foreword

The text of document 112/399/CDV, future edition 1 of IEC 61857-32, 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 61857-32:2019.

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)	2020-08-18
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2022-11-18

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The text of the International Standard IEC 61857-32:2019 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60505	NOTE	Harmonized as EN 60505

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 61857-1	-	Electrical insulation systems - Procedures for thermal evaluation - Part 1: General requirements - Low-voltage	EN 61857-1	-
IEC 61858-2	-	Electrical insulation systems - Thermal evaluation of modifications to an established electrical insulation system (EIS) - Part 2: Form-wound EIS	EN 61858-2	-
IEC/TR 61857-2	-	Electrical insulation systems - Procedures for thermal evaluation - Part 2: Selection of the appropriate test method for evaluation and classification of electrical insulation systems	-	-

IEC 61857-32

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Electrical insulation systems – Procedures for thermal evaluation – Part 32: Multifactor evaluation with increased factors during diagnostic testing

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ELECTRICAL INSULATION SYSTEMS – PROCEDURES FOR THERMAL EVALUATION –

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FOREWORD

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International Standard IEC 61857-32 has been prepared by IEC technical committee 112: Evaluation and qualification of electrical insulating materials and systems

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

CDV	Report on voting
112/399/CDV	112/425A/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.

A list of all parts in the IEC 61857 series, published under the general title *Electrical insulation systems – Procedures for thermal evaluation*, 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 "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

Accelerated ageing of an Electrical Insulation System [EIS] is intended to evaluate the thermal classification of the EIS. Many applications need to include the evaluation of other factors in addition to the thermal factor related to the application.

IEC 60505 provides four categories of stresses or ageing factors which influence the performance of products in use under a wide range of operating conditions. In IEC 60505, the factors are presented as Thermal [T], Electrical [E], Environmental [E], and Mechanical [M]. In this part of IEC 61857, Environmental [E] is replaced with Ambient [A] to remove possible confusion of having two factors represented by the same letter. For this document, the factors are presented with Thermal [T], Electrical [E], Ambient [A], and Mechanical [M].

This document provides the structure for evaluation of one or more of the three factors E, A and M by direct comparison to the baseline classification established by T. Without the baseline, any analysis is limited.

While similar, IEC 61857-32 and IEC 61857-33 have different structure and evaluation conditions. In IEC 61857-32, thermal exposure is the only intended ageing factor and additional stresses are only applied during the diagnostic portion of each test cycle. In IEC 61857-33, the stresses are applied continually at elevated temperatures.