

Electrical insulation systems — Procedures for thermal evaluation —

Part 1: General requirements — Low-voltage

ICS 29.080.30

National foreword

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**Electrical insulation systems –
Procedures for thermal evaluation
Part 1: General requirements –
Low-voltage
(IEC 61857-1:2004)**

Systèmes d'isolation électrique -
Procédures d'évaluation thermique
Partie 1: Exigences générales –
Basse tension
(CEI 61857-1:2004)

Elektrische Isoliersysteme –
Verfahren zur thermischen Bewertung –
Teil 1: Allgemeine Anforderungen -
Niederspannung
(IEC 61857-1:2004)

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
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Foreword

The text of document 98/222/FDIS, future edition 2 of IEC 61857-1, prepared by IEC TC 98, Electrical insulation systems (EIS), was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61857-1 on 2005-02-01.

This European Standard supersedes EN 61857-1:1999.

It constitutes a technical revision which makes this basic standard compatible with parts 21 and 22.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2005-11-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2008-02-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61857-1:2004 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 60034-18-1	NOTE	Harmonized as EN 60034-18-1:1994 (not modified).
IEC 60034-18-21	NOTE	Harmonized as EN 60034-18-21:1994 (not modified).
IEC 60034-18-31	NOTE	Harmonized as EN 60034-18-31:1994 (not modified).
IEC 62114	NOTE	Harmonized as EN 62114:2001 (not modified).

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INTRODUCTION

This International Standard establishes a standardized test procedure for estimating by comparison the life expectancy of electrical insulation systems (EIS) in accordance with IEC 60505.

An EIS contains many different components selected to withstand the varying electrical, mechanical, and thermal stresses occurring in the different parts of the structure of an electrotechnical product. The useful life of an EIS depends upon the way that its individual components are arranged, their interactions upon each other, and the contribution of each component to the electrical and mechanical integrity of the EIS. Therefore, it is impossible to specify one test object to represent all electrotechnical products. It is incumbent upon the IEC equipment technical committees to address the test objects and application of this test procedure that will meet their specific needs. This work is intended to proceed by horizontal committee activity between this technical committee and other IEC technical committees to develop a series of parts, each part to address a specific test object and/or application.

This procedure permits approximate comparisons only, and cannot be relied upon to completely determine the merits of any particular EIS. Such information can be obtained only from extended service experience.