Electrical insulation systems - Procedures for thermal evaluation -- Part 22: Specific requirements for encapsulated-coil model - Wire-wound electrical insulation system (EIS)

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 61857-22:2008 sisaldab Euroopa standardi EN 61857-22:2008 ingliskeelset teksti.	This Estonian standard EVS-EN 61857-22:2008 consists of the English text of the European standard EN 61857-22:2008.
Standard on kinnitatud Eesti Standardikeskuse 24.11.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 24.11.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 08.11.2008.	Date of Availability of the European standard text 08.11.2008.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

ICS 29.080.30

Võtmesõnad: definition, definitions, electrical engineering, electrical insulation, evaluations, insulation systems, insulations, specification (approval), specifications, testing, thermal testing, wire winding

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61857-22

October 2008

ICS 29.080.30

Supersedes EN 61857-22:2002

English version

Electrical insulation systems - Procedures for thermal evaluation - Part 22: Specific requirements for encapsulated-coil model - Wire-wound electrical insulation system (EIS)

(IEC 61857-22:2008)

Systèmes d'isolation électriques - Procédures d'évaluation thermique - Partie 22: Exigences particulières pour modèle de bobine encapsulée - Système d'isolation électrique (SIE) à enroulements à fil
(CEI 61857-22:2008)

Elektrische Isoliersysteme - Verfahren zur thermischen Bewertung - Teil 22: Spezielle Bedingungen für ein umhülltes Spulenmodell - Elektrisches Isoliersystem (EIS) aus Drahtwicklungen
(IEC 61857-22:2008)

This European Standard was approved by CENELEC on 2008-09-01. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Ref. No. EN 61857-22:2008 E

Foreword

The text of document 112/91/CDV, future edition 2 of IEC 61857-22, prepared by IEC TC 112, Evaluation and qualification of electrical insulating materials and systems, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61857-22 on 2008-09-01.

This European Standard supersedes EN 61857-22:2002.

The editorial revisions make EN 61857-22:2008 compatible with Parts 1 and 21.

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)	2009-06-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2011-09-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61857-22:2008 was approved by CENELEC as a European Standard without any modification.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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 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 61857-1	2004	Electrical insulation systems - Procedures for thermal evaluation - Part 1: General requirements - Low-voltage	EN 61857-1	2005

CONTENTS

INTRODUCTION

A series of parts that will make up IEC 61857 is currently being developed, each of which will address a specific test object and/or application with an associated test procedure.

Additional parts will be developed in cooperation with IEC technical committees responsible for equipment.

ELECTRICAL INSULATION SYSTEMS – PROCEDURES FOR THERMAL EVALUATION –

Part 22: Specific requirements for encapsulated-coil model – Wire-wound electrical insulation system (EIS)

1 Scope

This part of IEC 61857 provides a general-purpose procedure for the evaluation of wire-wound systems using a general purpose encapsulated-coil model (ECM) where the application is unknown.

2 Normative references

The following referenced documents are indispensable for the application 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 61857-1:2004, *Electrical insulation systems – Procedures for thermal evaluation – Part 1: General requirements – Low-voltage*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61857-1, as well as the following definitions, apply.

3.1
encapsulant
electrical insulating material (EIM) that completely encases the coil except for connections to the exterior, and is part of the electrical insulation system (EIS)

NOTE The encapsulated-coil model (ECM) does not employ a supplemental shell.

3.2
encapsulation
process of applying an encapsulant

NOTE For the purpose of evaluating an electrical insulation system (EIS), the process may consist of injection moulding, compression moulding, casting or other techniques.

3.3
bobbin
form around which a coil is wound

3.4
coil
continuous winding of insulated wire

3.5
coil-to-coil insulation
electrical insulating material (EIM) between individual coils