Electrical insulation systems - Procedures for thermal evaluation -- Part 21: Specific requirements for general-purpose models - Wire-wound applications

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 61857-21:2009 sisaldab Euroopa standardi EN 61857-21:2009 ingliskeelset teksti.	This Estonian standard EVS-EN 61857-21:2009 consists of the English text of the European standard EN 61857-21:2009.
Standard on kinnitatud Eesti Standardikeskuse 31.08.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 31.08.2009 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 10.07.2009.	Date of Availability of the European standard text 10.07.2009.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

ICS 29.080.01

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61857-21

July 2009

ICS 29.080.30

Supersedes EN 61857-21:2004

English version

Electrical insulation systems - Procedures for thermal evaluation - Part 21: Specific requirements for general-purpose models - Wire-wound applications

(IEC 61857-21:2009)

Systèmes d'isolation électrique - Procédures d'évaluation thermique - Partie 21: Exigences particulières pour les modèles d'usage général - Applications aux enroulements à fil (CEI 61857-21:2009)

Elektrische Isoliersysteme - Verfahren zur thermischen Bewertung - Teil 21: Spezielle Bedingungen für Mehrzweckmodelle - Anwendungen bei Drahtwicklungen (IEC 61857-21:2009)

This European Standard was approved by CENELEC on 2009-06-01. 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

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 61857-21:2009 E

Foreword

The text of document 112/120/FDIS, future edition 3 of IEC 61857-21, 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 61857-21 on 2009-06-01.

This European Standard supersedes EN 61857-21:2004.

The editorial revisions make EN 61857-21:2009 compatible with Parts 1 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)	2010-03-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2012-06-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61857-21:2009 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 60455	Series	Resin based reactive compounds used for electrical insulation	EN 60455	Series
IEC 60464	Series	Varnishes used for electrical insulation	EN 60464	Series
IEC 60505	-[1)]	Evaluation and qualification of electrical insulation systems	EN 60505	2004[2)]
IEC 61857-1	2008	Electrical insulation systems - Procedures for thermal evaluation - Part 1: General requirements - Low-voltage	EN 61857-1	2009

[1)] Undated reference.

[2)] Valid edition at date of issue.

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.

ELECTRICAL INSULATION SYSTEMS – PROCEDURES FOR THERMAL EVALUATION –

Part 21: Specific requirements for general-purpose models – Wire-wound applications

1 Scope

This part of IEC 61857 describes a general-purpose model (GPM) and a tall channel alternative model (GPM-TC) which can be used for the evaluation of wire-wound electrical insulation systems (EIS) where specific electrotechnical products are not available or required.

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 60455 (all parts), *Resin based reactive compounds used for electrical insulation*

IEC 60464: (all parts), *Varnishes used for electrical insulation*

IEC 60505, *Evaluation and qualification of electrical insulation systems*

IEC 61857-1, 2008, *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 60505 and IEC 61857-1, as well as the following definitions, apply.

3.1
earth
ground
make an electric connection between a given point in a system, an installation or in equipment and a local earth

[IEV 195-01-08]

3.2
earth (ground) insulation
electrical insulating material (EIM) between a coil and earthed metal

3.3
coil
continuous winding of insulated wire

3.4
coil-to-coil insulation
electrical insulating material (EIM) between individual coils