Bushings above 1 kV up to 52 kV and from 250 A to 3,15 kA for liquid filled transformers

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 50180:2010 sisaldab Euroopa standardi EN 50180:2010 ingliskeelset teksti.	This Estonian standard EVS-EN 50180:2010 consists of the English text of the European standard EN 50180:2010.
Standard on kinnitatud Eesti Standardikeskuse 31.10.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 31.10.2010 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 24.09.2010.	Date of Availability of the European standard text 24.09.2010.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

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EUROPEAN STANDARD

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EN 50180

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Supersedes EN 50180:1997

English version

Bushings above 1 kV up to 52 kV and from 250 A to 3,15 kA for liquid filled transformers

Traversées de tensions supérieures à 1 kV jusqu'à 52 kV et de 250 A à 3,15 kA pour transformateurs immergés dans un liquide

Durchführungen über 1 kV bis 52 kV und von 250 A bis 3,15 kA für flüssigkeitsgefüllte Transformatoren

CENELEC

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

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Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 36A, Insulated bushings. It was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50180 on 2010-09-01.

This document supersedes EN 50180:1997.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

The following dates are proposed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2011-09-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2013-09-01

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Introduction

The object of this European Standard is to specify the requirements to ensure interchangeability of bushings having highest voltages above 1 kV up to 52 kV and rated currents from 250 A up to 3 150 A for insulating liquid filled transformers.

1 Scope

This European Standard is applicable to ceramic and resin insulated bushings having highest voltages above 1 kV up to 52 kV, rated currents from 250 A up to 3 150 A and frequencies from 15 Hz up to 60 Hz for insulating liquid filled transformers.

This standard establishes essential dimensions, to ensure interchangeability of bushings and to ensure adequate mounting and interchangeability of mating plug-in separable connectors of equivalent ratings.

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.

EN 62155, Hollow pressurized and unpressurized ceramic and glass insulators for use in electrical equipment with rated voltages greater than 1 000 V (IEC 62155)

EN 60672-3, Ceramic and glass-insulating materials - Part 3: Specifications for individual materials (IEC 60672-3)

EN 60137, Bushings for alternating voltages above 1 000 V (IEC 60137)

IEC 60815, Selection and dimensioning of high-voltage insulators intended for use in polluted conditions

IEC Guide 109 and Cenelec TC 111X document[1)], Environmental aspects - Inclusion in electrotechnical product standards

NOTE It is highly recommended to minimize the impact of bushings on the environment during all phases of their life (including manufacturing, operation during service life, dismantling after their end of life and disposal or recycling).

IEC Guide 109 and document by CENELEC TC 111X "*Environmental standardization for electrical and electronic products and systems*" after finalization can be used as helpful reference.

3 Definitions

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

3.1
open type bushing
a bushing, one end of which is immersed in an insulating liquid with the other end in ambient air and exposed or not exposed to external atmospheric conditions

3.2
plug-in type bushing
a bushing, one end of which is immersed in an insulating medium and the other end designed to receive a separable insulated cable connector without which the bushing cannot function

1) Under development.