

Bushings up to 1 kV and from 250 A to 5 kA, for liquid filled transformers

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 50386:2010 sisaldab Euroopa standardi EN 50386:2010 ingliskeelset teksti.

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English version

Bushings up to 1 kV and from 250 A to 5 kA, for liquid filled transformers

Traversées jusqu'à 1 kV et de 250 A à 5 kA, pour transformateurs à remplissage de liquide

Durchführungen bis 1 kV und von 250 A bis 5 kA für flüssigkeitsgefüllte Transformatoren

This European Standard was approved by CENELEC on 2010-10-01. 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.

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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 accepted by CENELEC as EN 50386 on 2010-10-01.

This document supersedes EN 50386:2002.

This edition, compared to EN 50386:2002, improves and facilitates the interchangeability of bushings, and improves dimensions settings for interchangeability and requirements of mechanical test.

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) 2011-10-01
 - latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2013-10-01
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Contents

1	Scope.....	4
2	Normative references.....	4
3	Requirements	4
3.1	Application.....	4
3.2	Standard value of rated voltage (U_r)	4
3.3	Standard values of rated current (I_r)	4
3.4	Minimum nominal creepage distance	4
3.5	Dielectric characteristics	5
3.6	Dimensions and components.....	5
3.7	Cantilever load withstand test.....	7
	Bibliography.....	8
 Figures		
	Figure 1 – Type 1 - 3 bushings (250 A to 630 A).....	5
	Figure 2 – Type 4 - 8 bushings (1 250 A to 5 000 A).....	5
 Tables		
	Table 1 – Minimum nominal creepage distance.....	4
	Table 2 – Standard dimensions	6
	Table 3 – Cantilever test load.....	7
	Table 4 – List of components.....	7

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Introduction

The object of this European Standard is to specify the requirements and the dimensions of bushings for voltages up to 1 000 V and rated currents from 250 A up to 5 000 A for insulating liquid filled transformers.

1 Scope

This European Standard is applicable to ceramic insulated bushings for rated voltages up to 1 000 V, rated currents from 250 A up to 5 000 A and frequencies from 15 Hz up to 60 Hz for insulating liquid filled transformers.

NOTE These bushings are suitable for operation at 1,1 kV in compliance with EN 50464-1.

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 60137, Insulated bushings for alternating voltages above 1 000 V (*IEC 60137*)

3 Requirements

3.1 Application

Bushings covered by this standard shall be suitable for operation with one end partially or fully immersed in an insulating liquid and with the other end in air.

3.2 Standard value of rated voltage (U_r)

The rated voltage U_r is 1 000 V (phase to phase). When a bushing is used only partially immersed, a reduced rated voltage shall be agreed between the purchaser and the manufacturer.

3.3 Standard values of rated current (I_r)

The values of I_r of a bushing shall be chosen from the standard values as given below, in amperes:

250 - 630 - 1 250 - 2 000 - 3 150 - 4 000 - 5 000

3.4 Minimum nominal creepage distance

The minimum nominal creepage distance for bushing ends intended for use in air, is given in Table 1.

Table 1 – Minimum nominal creepage distance

I_r A	250	630	1 250 – 3 150	4 000 – 5 000
Minimum nominal creepage distance mm	55 (standard type) 115 (extended type) ^a	70	75	85
^a Type with extended creepage distance.				