



BSI Standards Publication

Plug-in type bushings above 1 kV up to 52 kV and from 250 A to 2,50 kA for equipment other than liquid filled transformers

National foreword

This British Standard is the UK implementation of EN 50181:2010. It supersedes BS EN 50181:1999 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PEL/36, Insulators for power systems.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© BSI 2010

ISBN 978 0 580 69499 8

ICS 29.080.20

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 August 2010.

Amendments issued since publication

Date	Text affected
------	---------------

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 50181

July 2010

ICS 29.080.20

Supersedes EN 50181:1997

English version

Plug-in type bushings above 1 kV up to 52 kV and from 250 A to 2,50 kA for equipment other than liquid filled transformers

Traversées embrochables de tensions
supérieures à 1 kV jusqu'à 52 kV
et de 250 A à 2,50 kA pour équipements
autres que transformateurs à remplissage
de liquide

Steckbare Durchführungen über 1 kV
bis 52 kV und von 250 A bis 2,50 kA
für Anlagen anders als flüssigkeitsgefüllte
Transformatoren

This European Standard was approved by CENELEC on 2010-07-01. 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, Croatia, 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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

© 2010 CENELEC - All rights of exploitation in any form and by any means reserved worldwide for CENELEC members.

Ref. No. EN 50181:2010 E



Documents

Document Sharing Hub

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 50181 on 2010-07-01.

This document supersedes EN 50181:1997.

The main technical changes on the Plug-in type bushings are:

- Enlarge the scope of the voltage class from the plug-in bushings from 36 kV to 52 kV;
- Upgrading the current capacity of the existing defined bushings;
- Introduce a new bushing interface for 52 kV.

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 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) | 2011-07-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2013-07-01 |
-

Contents

Introduction	4
1 Scope	4
2 Normative references	4
3 Definitions	4
4 Requirements	5
4.1 Application	5
4.2 Standard values of maximum voltage (U_m)	5
4.3 Standard values of rated current (I_r)	5
4.4 Compliance	5
4.5 Bushing mounting distance	5
4.6 Detail dimensions of plug-in type bushings	5
Figures	
Figure 1 - Interface dimensions of outside cone plug-in type bushings	6
Figure 2 - Bushing details of outside cone plug-in type bushings	7
Figure 3 - Outer dimensions of inside cone plug-in type bushings	9
Figure 4 - Interface details of inside cone plug-in type bushings	10
Tables	
Table 1 - Interface dimensions	6
Table 2 - Bushing dimensions	8
Table 3 - Bushing dimensions	9
Table 4 - Interface dimensions	11