



NSAI
Standards

Irish Standard
I.S. EN 50673:2019

Plug-in type bushings for 72,5 kV with
630 A and 1 250 A for electrical
equipment

I.S. EN 50673:2019

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN 50673:2019 is the adopted Irish version of the European Document EN 50673:2019, Plug-in type bushings for 72,5 kV with 630 A and 1 250 A for electrical equipment

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EUROPEAN STANDARD

EN 50673

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2019

ICS 29.080.20

English Version

Plug-in type bushings for 72,5 kV with 630 A and 1 250 A for electrical equipment

Traversées de type embrochable, 72,5 kV, pour transformateurs à diélectrique liquide et autres équipements

Einsteck-Durchführungen für 72,5 kV mit 630 A und 1 250 A für elektrische Betriebsmittel

This European Standard was approved by CENELEC on 2018-12-27. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

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Contents	Page
European foreword	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Rated values	6
4.1 Standard values of maximum voltage (U_m)	6
4.2 Standard values of rated current (I_r)	6
5 Requirements	6
5.1 Compliance	6
5.2 Mechanical forces	6
5.3 High voltage shielding electrode	6
5.4 Ground shielding electrode	7
5.5 Transformer drying process	7
6 Tests	7
6.1 General	7
6.2 Interchangeability of plug-in type bushings and separable connectors	7
7 Dimensions and Applications	8
7.1 Current- carrying connection interfaces	8
7.2 Plug-in type bushing mounting distance	8
7.3 Detail dimensions of plug-in type bushings	8
7.3.1 General	8
7.3.2 Outside cone plug-in type bushings	8
7.3.3 Inside cone plug-in type bushings	10
8 Requirements for plug-in type bushing fixations to apparatus	11
8.1 General	11
8.2 Outside cone plug-in type bushings	11
8.3 Inside cone plug-in type bushings	13
Bibliography	14

European foreword

This document (EN 50673:2019) has been prepared by CLC/TC 36A "Insulated bushings".

The following dates are fixed:

- latest date by which this document has to be (dop) 2019-12-27 implemented at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards (dow) 2021-12-27 conflicting with this document have to be withdrawn

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

EN 50673:2019 (E)

Introduction

The object of this document is to specify dimensions, properties, requirements and tests to ensure interchangeability between plug-in type bushings and separable connectors, installed high voltage power cables with extruded insulation and connected to electrical equipment, like liquid filled transformers and gas insulated switchgear and controlgear. The application of such plug-in type bushings is limited to $U_m = 72,5$ kV and rated currents of 630 A and 1 250 A.

1 Scope

This document is applicable to plug-in type bushings, according to EN 60137, 72,5 kV, rated currents from 630 A up to 1 250 A and frequencies from 15 Hz up to 60 Hz for single or three-phase arrangements in electrical equipment like liquid filled transformers or gas insulated switchgear and controlgear. It complements and amends, if necessary, the relevant EN standards.

The application of such plug-in type bushings is derived from EN 50180 and EN 50181 but applied for higher voltages with described deviations to EN 50299-2 and EN 62271-209.

This standard does not cover the connection assembly as described in EN 50299-2 and EN 62271-209.

EN 60137 and HD 632 series outline the qualification, type test, routine and sample test of plug-in type bushings according to this standard.

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

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 60076 series, *Power transformers (IEC 60076 series)*

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

EN 62271 series, *High-voltage switchgear and controlgear (IEC 62271 series)*

EN 62271-209, *High-voltage switchgear and controlgear - Part 209: Cable connections for gas-insulated metal-enclosed switchgear for rated voltages above 52 kV - Fluid-filled and extruded insulation cables - Fluid-filled and dry-type cable-terminations (IEC 62271-209)*

HD 632 series, *Power cables with extruded insulation and their accessories for rated voltages above 36 kV ($U_m = 42$ kV) up to 150 kV ($U_m = 170$ kV)*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

plug-in type bushing

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 plug-in type bushing cannot function

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