Irish Standard
I.S. EN 50299-1:2014

Oil-immersed cable connection assemblies for transformers and reactors having highest voltage for equipment Um from 72,5 kV to 550 kV - Part 1: Fluid-filled cable terminations

I.S. EN 50299-1:2014

Incorporating amendments/corrigenda/National Annexes issued since publication:

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I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

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This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

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This document is based on:	*Published:*
EN 50299-1:2014	2014-11-14

This document was published under the authority of the NSAI and comes into effect on:	ICS number:
2014-12-03	NOTE: If blank see CEN/CENELEC cover page

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50299-1

November 2014

ICS 29.180

Supersedes EN 50299:2002 (PART)

English Version

Oil-immersed cable connection assemblies for transformers and reactors having highest voltage for equipment Um from 72,5 kV to 550 kV - Part 1: Fluid-filled cable terminations

Boîte de raccordement de câble pour transformateurs immergés et bobine d'inductance de tensions comprises entre 72,5 kV et 550 kV - Partie 1: Extrémité de câble remplie d'un fluide

Ölgefüllte Kabelanschlusseinheiten für Transformatoren und Drosselspulen mit einer höchsten Spannung für Betriebsmittel Um von 72,5 kV bis 550 kV - Teil 1: Flüssigkeitsgefüllte Kabelendverschlüsse

This European Standard was approved by CENELEC on 2014-10-13. 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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Ref. No. EN 50299-1:2014 E

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Foreword

This document (EN 50299-1:2014) has been prepared by CLC/TC 14 "Power transformers".

The following dates are fixed:

• latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2015-10-13
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2017-10-13

This document partially supersedes EN 50299:2002, together with EN 50299-2:2014. Changes have been made in this document to bring it line with EN 50299-2:2014.

Dimensions mentioned in EN 50299-1 are valid for fluid-filled cable terminations. Dry-type cable terminations may also fit to these requirements.

A new standard EN 50299-2 is issued which describes requirements for dry-type cable terminations only.

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

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1 Scope

This European Standard covers the oil-immersed single-phase connection assembly of cables for transformers and reactors, designed in accordance with EN 60076 series.

NOTE In the standard the term "transformer" is used as common definition for transformer and reactor.

The purpose of EN 50299-1 is to establish for the cable assemblies:

- the electrical and mechanical requirements, including interchangeability;
- the limits of supply;
- the test to be carried out.

It complements and amends, if necessary, the relevant IEC standards and applies to oil immersed cable connections, suitable for fluid-filled or dry-type cable terminations.

EN 50299-1 does not cover direct cable terminations (see 3.1.1.3), but, in this case, upon agreement between purchaser and supplier, the standard may be used for guidance except for Figure 1 and Figure 2 which are not applicable.

This standard applies to oil-immersed cable connection boxes on transformers with highest voltage for equipment U_m = 72,5 kV to 550 kV, including the current conductor terminal at the cable sealing end of the transformer.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 60296 *Fluids for electrotechnical applications — Unused mineral insulating oils for transformers and switchgear (IEC 60296)*

EN ISO 1302 *Geometrical product specifications (GPS) — Indication of surface texture in technical product documentation (ISO 1302)*

IEC 60141 Series *Tests on oil-filled and gas-pressure cables and their accessories*

IEC 60840 *Power cables with extruded insulation and their accessories for rated voltages above 30 kV (U_m = 36 kV) up to 150 kV (U_m = 170 kV) — Test methods and requirements*

IEC 62067 *Power cables with extruded insulation and their accessories for rated voltages above 150 kV (U_m = 170 kV) up to 500 kV (U_m = 550 kV) — Test methods and requirements*

HD 632 S2 *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)*