



NSAI
Standards

Irish Standard
I.S. EN 50299-2:2014

Oil-immersed cable connection assemblies for transformers and reactors having highest voltage for equipment U_m from 72,5 kV to 550 kV - Part 2: Dry-type cable terminations

I.S. EN 50299-2:2014

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):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

EN 50299-2:2014

Published:

2014-11-14

*This document was published
under the authority of the NSAI
and comes into effect on:*

2014-12-03

ICS number:

NOTE: If blank see CEN/CENELEC cover page

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EUROPEAN STANDARD

EN 50299-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

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 U_m from 72,5 kV
to 550 kV - Part 2: Dry-type 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 2: Extrémité de câble sèche

Ölgefüllte Kabelanschlüsseinheiten mit
Kompaktkabelanschlüssen für Transformatoren und
Drosselspulen mit einer höchsten Spannung für
Betriebsmittel U_m von 72,5 kV bis 550 kV - Teil 2:
Kompaktkabelanschlüsse

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 50299-2:2014) 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 50299-1:2014.

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

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

1 Scope

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

NOTE The term "transformer" is used as common definition for transformer and reactor.

If no separate cable connection box is used and dry-type cable terminations are directly installed into the transformer tank the requirements of this standard should be followed.

The purpose of EN 50299-2 is to establish for the cable connection assemblies:

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

It complements and amends, if necessary, the relevant standards and applies to dry-type cable terminations for power cables with extruded insulation which may be used with similar interfaces for the cable entrance in switchgear applications according to EN 62271-209.

This standard applies to oil-filled cable connection boxes of transformers with highest voltage for equipment from $U_m = 72,5$ kV to 550 kV, including the conductor current terminal with removable link between the transformer and the dry-type cable termination.

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 | <i>Power transformers (IEC 60076 Series)</i> |
| EN 60076-3:2013 | <i>Power transformers — Part 3: Insulation levels, dielectric tests and external clearances in air (IEC 60076-3:2013)</i> |
| EN 60296 | <i>Fluids for electrotechnical applications — Unused mineral insulating oils for transformers and switchgear (IEC 60296)</i> |
| EN 60422 | <i>Mineral insulating oils in electrical equipment — Supervision and maintenance guidance (IEC 60422)</i> |
| EN 60529 | <i>Degrees of protection provided by enclosures (IP code) (IEC 60529)</i> |
| EN 61099 | <i>Insulating liquids — Specifications for unused synthetic organic esters for electrical purposes (IEC 61099)</i> |
| EN ISO 1302 | <i>Geometrical product specifications (GPS) — Indication of surface texture in technical product documentation (ISO 1302)</i> |
| IEC 60076-7 | <i>Power transformers — Part 7: Loading guide for oil-immersed power transformers</i> |
| IEC 60840 | <i>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</i> |
| IEC 62067 | <i>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</i> |
| HD 632 S2 | <i>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)</i> |

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