



National Standards Authority of Ireland

STANDARD

I.S. EN 50299:2004

ICS 29.180

**OIL-IMMERSED CABLE CONNECTION
ASSEMBLIES FOR TRANSFORMERS AND
REACTORS HAVING HIGHEST VOLTAGE FOR
EQUIPMENT UM FROM 72,5 KV TO 550 KV**

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EUROPEAN STANDARD

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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

Boîte de raccordement de câble
pour transformateurs immergés
et bobine d'inductance de tensions
comprises entre 72,5 kV et 550 kV

Ölgefüllte Kabelanschlusseinheiten für
Transformatoren und Drosselspulen mit
einer höchsten Spannung für
Betriebsmittel U_m von 72,5 kV bis 550 kV

This European Standard was approved by CENELEC on 2002-10-01. 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

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Foreword

This European Standard was prepared by the CENELEC Technical Committee TC 14, Power transformers.

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50299 on 2002-10-01.

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) 2003-10-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2005-10-01

The contents of the corrigendum of April 2004 have been included in this copy.

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1 Scope

This standard covers the oil-immersed single-phase connection assembly of cables for transformers and reactors, designed in accordance with EN 60076 series and with EN 60289, respectively.

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

The purpose of EN 50299 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 does not cover direct cable terminations (see 3.3.3), 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 $U_m = 72,5 \text{ kV}$ to 550 kV , including the current conductor terminal at the cable sealing end of the transformer.

2 Normative references

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 60076	Series	Power transformers (IEC 60076 series, mod.)
EN 60289		Reactors (IEC 60289, mod.)
IEC 60141	Series	Test on oil-filled and gas-pressure cables and their accessories
IEC 60296		Specification for unused mineral insulating oils for transformers and switchgear
IEC 60840		Power cables with extruded insulation and their accessories for rated voltages above 30 kV ($U_m = 36 \text{ kV}$) up to 150 kV ($U_m = 170 \text{ kV}$) – Test methods and requirements
IEC/TR2 61639		Direct connection between power transformers and gas-insulated metal-enclosed switchgear for rated voltages of $72,5 \text{ kV}$ and above

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