



BSI Standards Publication

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

National foreword

This British Standard is the UK implementation of EN 50299-2:2014. Together with BS EN 50299-1:2014, it supersedes BS EN 50299:2002 which will be withdrawn on 13 October 2017.

The UK participation in its preparation was entrusted to Technical Committee PEL/14, Power transformers.

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.

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

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

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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- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2017-10-13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>