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INTERNATIONAL STANDARD

**Power transformers –
Part 57-129: Transformers for HVDC applications**





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**Power transformers –
Part 57-129: Transformers for HVDC applications**

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International Standard IEC/IEEE 60076-57-129 has been prepared by IEC technical committee 14: Power transformers, in cooperation with the Transformers Committee of the IEEE Power & Energy Society¹, under the IEC/IEEE Dual Logo Agreement.

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This publication is published as an IEC/IEEE Dual Logo standard.

The text of this standard is based on the following IEC documents:

FDIS	Report on voting
14/904/FDIS	14/907/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

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¹ A list of IEEE participants can be found at the following URL: http://standards.ieee.org/downloads/60076/60076-57-129-2017/60076-57-129-2017_wg-participants.pdf

POWER TRANSFORMERS –

Part 57-129: Transformers for HVDC applications

1 Scope

This part of 60076 International Standard specifies requirements of liquid-immersed three-phase and single-phase converter transformers for use in high voltage direct current (HVDC) power transmission systems including back-to-back applications. It applies to transformers having two, three or multiple windings.

This document does not apply to

- converter transformers for industrial applications (see IEC 61378-1 or IEEE Std C57.18.10);
- converter transformers for traction applications (see IEC 60310).

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.

2.1 IEC references

IEC 60050-421, *International Electrotechnical Vocabulary – Chapter 421: Power transformers and reactors* (available at <http://www.electropedia.org>)

IEC 60076-1:2011, *Power transformers – Part 1: General*

IEC 60076-2, *Power transformers – Part 2: Temperature rise for liquid-immersed transformers*

IEC 60076-3:2013, *Power transformers – Part 3: Insulation levels, dielectric tests and external clearances in air*

IEC 60076-5, *Power transformers – Part 5: Ability to withstand short-circuit*

IEC 60076-18, *Power transformers – Part 18: Measurement of frequency response*

IEC 60076-10, *Power transformers – Part 10: Determination of sound levels*

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

IEC 60214-1, *Tap-changers – Part 1: Performance requirements and test methods*

IEC 60270, *High voltage test techniques – Partial discharge measurements*

IEC/IEEE 65700-19-03, *Bushings for DC application*