

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

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**Power transformers –  
Part 22-5: Power transformer and reactor fittings – Electric pumps for  
transformers**

**Transformateurs de puissance –  
Partie 22-5: Accessoires pour transformateurs de puissance et bobines  
d'inductance – Électropompes pour transformateurs**



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**POWER TRANSFORMERS –****Part 22-5: Power transformer and reactor fittings –  
Electric pumps for transformers**

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IEC 60076-22-5 has been prepared by IEC technical committee 14: Power transformers. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
14/1021/CDV	14/1040A/RVC

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

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## POWER TRANSFORMERS –

### Part 22-5: Power transformer and reactor fittings – Electric pumps for transformers

#### 1 Scope

This part of IEC 60076 covers electric pumps used in the cooling circuits of power transformers and reactors. It applies to electric pumps mounted on liquid immersed power transformers according to IEC 60076-1 and reactor pumps according to IEC 60076-6 with and without conservator for indoor or outdoor installation.

It outlines the operation requirements for the electrical and hydraulic performance, mechanical design, routine testing and type testing. Additionally, performance and dimensions of preferred sizes of pump sets are specified in informative annexes.

The pumps covered in this document are rotodynamic pumps driven by a squirrel cage induction motor that is immersed in the insulating liquid.

Pump sets conforming to this document can be of in-line or end suction design.

#### 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.

IEC 60034-1:2017, *Rotating electrical machines – Part 1: Rating and performance*

IEC 60034-5, *Rotating electrical machines – Part 5: Degrees of protection provided by the integral design of rotating electrical machines (IP code) – Classification*

IEC 60034-9, *Rotating electrical machines – Part 9: Noise limits*

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

IEC 60076-7, *Power transformers – Part 7: Loading guide for mineral-oil-immersed power transformers*

IEC 60085, *Electrical insulation – Thermal evaluation and designation*

IEC 60296, *Fluids for electrotechnical applications – Mineral insulating oils for electrical equipment*

IEC 60529, *Degrees of protection provided by enclosures (IP Code)*

ISO 179-1:2010, *Plastics – Determination of Charpy impact properties – Part 1: Non-instrumented impact test*

ISO 185, *Grey cast irons – Classification*