



SLOVENSKI STANDARD
SIST EN IEC 60076-22-6:2021

01-junij-2021

Nadomešča:
SIST EN 50216-12:2011

Močnostni transformatorji - 22-6. del: Oprema močnostnega transformatorja in dušilke - Ventilatorji

Power transformers - Part 22-6: Power transformer and reactor cooling equipment - Fans

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EUROPEAN STANDARD

EN IEC 60076-22-6

NORME EUROPÉENNE

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March 2021

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English Version

**Power transformers - Part 22-6: Power transformer and reactor fittings - Electric fans for transformers
(IEC 60076-22-6:2021)**

Transformateurs de puissance - Partie 22-6: Accessoires pour transformateurs de puissance et bobines d'inductance - Ventilateurs électriques pour transformateurs
(IEC 60076-22-6:2021)

Leistungstransformatoren - Teil 22-6: Kühleinrichtungen für Leistungstransformatoren und Drosselspulen - Ventilatoren
(IEC 60076-22-6:2021)

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 60076-22-6:2021 (E)**European foreword**

The text of document 14/1022/CDV, future edition 1 of IEC 60076-22-6, prepared by IEC/TC 14 "Power transformers" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60076-22-6:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2021-11-22
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-02-22

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Endorsement notice

The text of the International Standard IEC 60076-22-6:2021 was approved by CENELEC as a European Standard without any modification.

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IEC 60076-6 NOTE Harmonized as EN 60076-6
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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60034-1	-	Rotating electrical machines - Part 1: Rating and performance	-	-
IEC 60076-1	2011	Power transformers - Part 1: General	EN 60076-1	2011
IEC 60076-10	-	Power transformers - Part 10: Determination of sound levels	EN 60076-10	-
IEC 60529	-	Degrees of protection provided by enclosures (IP Code)	-	-
ISO 281	-	Rolling bearings - Dynamic load ratings and rating life	-	-
ISO 5801	2017	Fans - Performance testing using standardized airways	EN ISO 5801	2017
ISO 9227	-	Corrosion tests in artificial atmospheres - Salt spray tests	EN ISO 9227	-
ISO 12944	series	Paints and varnishes - Corrosion protection of steel structures by protective paint systems	-	-
ISO 13347-1	-	Industrial fans - Determination of fan sound power levels under standardized laboratory conditions - Part 1: General overview	-	-
ISO 13347-3	-	Industrial fans - Determination of fan sound power levels under standardized laboratory conditions - Part 3: Enveloping surface methods	-	-

EN IEC 60076-22-6:2021 (E)

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 13348	-	Industrial fans - Tolerances, methods of conversion and technical data presentation	-	-
ISO 13857	2019	Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs	EN ISO 13857	2019
ISO 14694	-	Industrial fans - Specifications for balance quality and vibration levels	-	-

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Power transformers –
Part 22-6: Power transformer and reactor fittings – Electric fans for transformers

Transformateurs de puissance –
**Partie 22-6: Accessoires pour transformateurs de puissance et bobines
d'inductance – Ventilateurs électriques pour transformateurs**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

POWER TRANSFORMERS –

Part 22-6: Power transformer and reactor fittings –
Electric fans for transformers

FOREWORD

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IEC 60076-22-6 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
14/1022/CDV	14/1041A/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. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts in the IEC 60076 series, published under the general title *Power transformers*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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POWER TRANSFORMERS –

Part 22-6: Power transformer and reactor fittings – Electric fans for transformers

1 Scope

This part of IEC 60076 covers the electric fans used in the cooling circuits of power transformers and reactors. It applies to electric fans mounted on liquid immersed power transformers according to IEC 60076-1 and reactors according to IEC 60076-6 with and without conservator for indoor or outdoor installation. It outlines the service conditions and the mechanical and electrical requirements that are common to all the equipment.

The electric fans concerned by this document are of the axially operating type and are for use on liquid to air coolers and for blowing out radiators.

This document also outlines the operation requirements specific to each equipment as well as the preferred dimensions relevant for interchangeability and uniform fan assembly and the type and routine tests to be performed.

STANDARD PREVIEW

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ISO 5801:2017, *Fans – Performance testing using standardized airways*

ISO 9227, *Corrosion tests in artificial atmospheres – Salt spray tests*

ISO 12944 (all parts), *Paints and varnishes – Corrosion protection of steel structures by protective paint systems*

ISO 13347-1, *Industrial fans – Determination of fan sound power levels under standardized laboratory conditions – Part 1: General overview*

ISO 13347-3, *Industrial fans – Determination of fan sound power levels under standardized laboratory conditions – Part 3: Enveloping surface methods*

ISO 13348, *Industrial fans – Tolerances, methods of conversion and technical data presentation*