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Power transformers –

**Part 10-1:
Determination of sound levels –
Application guide**

*This **English-language** version is derived from the original **bilingual** publication by leaving out all French-language pages. Missing page numbers correspond to the French-language pages.*



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Part 10-1: Determination of sound levels – Application guide

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

POWER TRANSFORMERS –

Part 10-1: Determination of sound levels – Application guide

FOREWORD

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International Standard IEC 60076-10-1 has been prepared by technical committee 14: Power transformers.

This standard is to be read in conjunction with IEC 60076-10.

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

FDIS	Report on voting
14/505/FDIS	14/513/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.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

IEC 60076 consists of the following parts, under the general title *Power transformers*:

- Part 1: General
- Part 2: Temperature rise
- Part 3: Insulation levels, dielectric tests and external clearances in air
- Part 4: Guide to the lightning impulse and switching impulse testing – Power transformers and reactors
- Part 5: Ability to withstand short circuit
- Part 6: Reactors (under consideration)
- Part 7: Loading guide for oil-immersed power transformers
- Part 8: Application guide
- Part 10: Determination of sound levels
- Part 10-1: Determination of sound levels – Application guide
- Part 11: Dry-type transformers
- Part 12: Loading guide for dry-type power transformers (under consideration)
- Part 13: Self-protected liquid filled transformers
- Part 14: Design and application of liquid-immersed power transformers using high-temperature insulation materials
- Part 15: Gas-filled-type power transformers (under consideration).

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

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- withdrawn;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

POWER TRANSFORMERS –

Part 10-1: Determination of sound levels – Application guide

1 Scope

This part of IEC 60076 provides supporting information to help both manufacturers and purchasers apply the measurement techniques described in IEC 60076-10. The sources and characteristics of transformer and reactor sound are described. Practical guidance on making measurements is given, and factors that may influence the accuracy of the methods are discussed. This application guide also clarifies those factors which should be agreed between manufacturer and purchaser when specifying a transformer or reactor, and indicates why values measured in the factory may differ from those measured on site.

This application guide is applicable to transformers and reactors together with their associated cooling auxiliaries.

2 Normative references

The following referenced documents are indispensable for the application 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 60076-10:2005, *Power transformers – Part 10: Determination of sound levels*