(PREVIEW)

Indian Standard

POWER TRANSFORMERS

PART 10 DETERMINATION OF SOUND LEVELS

1 Scope

This part of IEC 60076 defines sound pressure and sound intensity measurement methods by which sound power levels of transformers, reactors and their associated cooling auxiliaries may be determined.

NOTE For the purpose of this standard, the term "transformer" means "transformer or reactor".

The methods are applicable to transformers and reactors covered by the IEC 60076 series, IEC 60289, IEC 60076-11 and the IEC 61378 series, without limitation as regards size or voltage and when fitted with their normal cooling auxiliaries.

This standard is primarily intended to apply to measurements made at the factory. Conditions on-site may be very different because of the proximity of objects, including other transformers. Nevertheless, the same general rules as are given in this standard may be followed when on-site measurements are made.

1.2 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 (all parts). Power transformers

IEC 60076-1:1993, Power transformers - Part 1: General

IEC 60076-11, Power transformers - Part 11: Dry-type transformers

IEC 60289:1988, Reactors

IEC 61043:1993, Electroacoustics - Instruments for the measurement of sound intensity –Measurement with pairs of pressure sensing microphones

IEC 61378 (all parts), Convertor transformers

IEC 61672-1, Electroacoustics - Sound level meters - Part 1: Specifications

IEC 61672-2, Eiectroacoustics - Sound level meters - Part 2: Pattern evaluation tests

ISO 3746:1995, Acoustics - Determination of sound power levels of noise sources using sound pressure - Survey method using an enveloping measurement surface over a reflecting plane

ISO 9614-1:1993, Acoustics - Determination of sound power levels of noise sources using sound intensity - Part 1: Measurement at discrete points