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Incorporating corrigendum January 2014

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High-voltage switchgear and controlgear

Part 37-082: Standard practice for the measurement of sound pressure levels on alternating current circuit-breakers

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Part 37-082: Standard practice for the measurement of sound pressure levels on alternating current circuit-breakers

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International Standard IEC/IEEE 62271-37-082 has been prepared by subcommittee 17A: High-voltage switchgear and controlgear, of IEC technical committee 17: Switchgear and controlgear, in cooperation with the Switchgear Committee of the IEEE Power & Energy Society[1], under the IEC/IEEE Dual Logo Agreement between IEC and IEEE.

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

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17A/1014/FDIS	17A/1023/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.

International standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

A list of all parts of the IEC 62271 series can be found, under the general title *High-voltage switchgear and controlgear*, on the IEC website.

The IEC Technical Committee and IEEE Technical Committee have decided that the contents of this publication will remain unchanged until the stability 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- withdrawn,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.

A bilingual version of this standard may be issued at a later date.

[1] A list of IEEE participants can be found at the following URL:
http://standards.ieee.org/downloads/62271-37-082/62271-37-082-2012/62271-37-082_wg-participants.pdf

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HIGH-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

Part 37-082: Standard practice for the measurement of sound pressure levels on alternating current circuit-breakers

1 Scope

This part of International Standard 62271 provides methods for the measurement of sound pressure level produced by outdoor alternating current circuit-breakers in a free-field environment. These methods may also be used indoors or in restricted field, provided that precautions are observed in the measurement and interpretation of the results.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1
A-weighted sound level
sound level as measured on a sound level meter using a setting that emphasizes the middle frequency components similar to the frequency response of the human ear at levels typical of rural backgrounds in mid frequencies

2.2
ambient noise
all noises that exist in an area that are not related to a facility or equipment under consideration

Note 1 to entry: Ambient noise includes sound from other industrial noise, transportation sources, animals, and nature, etc.

2.3
ambient sound level
ASL
sound level that is a composite of different airborne sounds from many sources far away from and near the point of measurement

Note 1 to entry: The ASL does not include any sound from the facility or equipment under consideration and is measured without it.

Note 2 to entry: The ASL is measured under representative conditions.

Note 3 to entry: As with comprehensive sound levels, representative conditions do not constitute absolute worst-case conditions but conditions that portray typical conditions for the area

2.4
bands
octave
1/3 octave
series of electronic filters separate sound into discrete frequency bands, making it possible to know how sound energy is distributed as a function of frequency

Note 1 to entry: Each octave band has a centre frequency that is double the centre frequency of the octave band preceding it. The 1/3 octave band analysis provides a finer breakdown of sound distribution as a function of frequency.

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