

IEEE Standard Terminology for Power and Distribution Transformers

IEEE Power & Energy Society

Sponsored by the
Transformers Committee

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Transformers Committee
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IEEE Power & Energy Society

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Abstract: This standard is a compilation of terminology and definitions related to electric power and distribution transformers and associated apparatus. It also includes similar terminology relating to power systems and insulation that is commonly involved in transformer technology.

Keywords: C57.12.80, definitions, distribution transformers, insulation, power systems, power transformers, terminology.

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Introduction

This introduction is not part of IEEE Std C57.12.80-2010, IEEE Standard Terminology for Power and Distribution Transformers.

This revision of IEEE Std C57.12.80 incorporates several updates since the last revision in 2002. These changes include:

- a) A complete re-format of the document to bring it to compliance with the latest IEEE Standards Word Template, including the automatic number for each of the terms in alphabetical order.
- b) Correction of several errors in equations and the update of equations to the built-in MS equation format to ease future maintenance and revisions.
- c) The addition or update of terms such as *distribution substation transformer*, *draw lead bushing*, *electronic transformers*, *natural ester fluid*, *parallel transformers*, *terminal pair*, and *thermally upgraded paper*.
- d) The removal of obsolete cooling class designations (OA, OA/FA, etc.) from the normative portion of the document and moved into an informative annex (Annex A) to provide historical reference.
- e) The removal of obsolete terms such as *corona* and other long form description of various cooling stages for oil-immersed transformers.
- f) The addition of an informative annex (Annex A) to provide guidance on the assignment of letters in the cooling class designation.
- g) Removal of references in Clause 2 not cited normatively into the bibliography.
- h) The removal of IEC 50 from Normative Reference since understanding of the IEC definition is not required for the application of this document. In some cases, where applicable, a reference to synonymous IEC 50 term is included for the user's convenience only. Added IEC 50 to the Bibliography (Annex B).

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1. Overview

1.1 Scope

This standard is a compilation of terminology and definitions related to electric power and distribution transformers and associated apparatus. It also includes similar terminology relating to power systems and insulation which is commonly involved in transformer technology.

1.2 Purpose

The purpose of this standard is to provide definitions and consistent interpretation of the commonly used terminology used in the electric power and distribution transformers and associated apparatus.

2. Normative references

The following referenced documents are indispensable for the application of this document (i.e. they must be understood and used, so each referenced document is cited in text and its relationship to this document is explained). For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments or corrigenda) applies.