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IEEE Standard for Network, Three-Phase Transformers, 2500 kVA and Smaller; High Voltage, 34 500 V and Below; Low Voltage, 600 V and Below; Subway and Vault Types (Liquid Immersed)

IEEE Power and Energy Society

Sponsored by the
Transformers Committee

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USA

IEEE Std C57.12.40™-2017
(Revision of
IEEE Std C57.12.40-2011)

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Abstract: This standard is intended for use as a basis for establishing the performance, interchangeability, and safety of the equipment covered and to assist in the proper selection of such equipment.
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Introduction

This introduction is not part of IEEE Std C57.12.40-2017 for IEEE Standard for Network, Three-Phase Transformers, 2500 kVA and Smaller; High Voltage, 34 500 V and Below; Low Voltage, 600 V and Below; Subway and Vault Types (Liquid Immersed).

This standard is an update to IEEE Std C57.12.40™-2011, which marked the first full technical update to this standard since it was published as a NEMA/ANSI standard called C57.12.40-2000. The 2011 revision reorganized clauses and made major changes to clarify the requirements for the primary disconnect and grounding switch. This revision clarifies the Applied Voltage Test in Table 2, introduces a stainless steel tank alternative to copper-bearing steel, eliminates the use of primary wiping sleeves, changes the primary switch chamber to a single compartment, and adds an informative Annex B.

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1. Overview

1.1 Scope

This standard covers certain electrical, dimensional, and mechanical characteristics and takes into consideration certain safety features of three-phase, 60-Hz, liquid-immersed, self-cooled, network transformers with a primary grounding switch. These transformers are rated 2500 kVA and below with high voltages of 34 500 volts and below and secondaries of 600 volts and below. These transformers are generally used for step-down purposes from underground primary cables and supply a secondary network system through network protectors. These transformers are typically installed below ground level.

1.2 Purpose

This standard is intended for use as a basis for establishing the performance, electrical and mechanical interchangeability, safety of the equipment covered, and to assist in the proper selection of such equipment.

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.