



# **IEEE Standard for Requirements for Pad-Mounted, Compartmental-Type, Self-Cooled, Three-Phase Distribution Transformers, 5 MVA and Smaller; High Voltage, 34.5 kV Nominal System Voltage and Below; Low Voltage, 15 kV Nominal System Voltage and Below**

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**IEEE Standard for Requirements for  
Pad-Mounted, Compartmental-Type,  
Self-Cooled, Three-Phase Distribution  
Transformers, 5 MVA and Smaller;  
High Voltage, 34.5 kV Nominal System  
Voltage and Below; Low Voltage, 15 kV  
Nominal System Voltage and Below**

Sponsor

**Transformers Committee**

of the

**IEEE Power & Energy Society**

Approved 9 December 2009

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**Abstract:** Certain electrical, dimensional, and mechanical characteristics are set forth as well as certain safety features of three-phase, 60 Hz, mineral-oil-immersed, self-cooled, pad-mounted, compartmental-type distribution transformers. These transformers are rated 5 MVA and smaller, with the high-voltage limit of 34.5 kV system nominal voltage and below, and with low-voltage limit of 15 kV system nominal voltage and below. The connector, bushing, and terminal arrangements for radial- or loop-feed systems are covered in this standard. The electrical and mechanical requirements of any accessory devices that may be supplied with the transformer are not covered.

**Keywords:** connector arrangements; loop, radial, three-phase, compartmental, pad-mounted, transformer; three-phase, pad-mount distribution transformers

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The Accredited Standards Committee on Transformers, Regulators, and Reactors, C57, has for many years been developing standards on transformers, regulators, and reactors. The data have been obtained from many sources, including the standards of the Institute of Electrical and Electronics Engineers, Inc. (IEEE) and the National Electrical Manufacturers Association (NEMA), reports of committees of the Edison Electrical Institute, and others.

This standard was prepared by the Working Group of the Subcommittee on Distribution Transformers, Three Phase, Pad-mounted, and it is a revision and combination of IEEE Std C57.12.22<sup>TM</sup>-1992 [B2] and IEEE Std C57.12.26<sup>TM</sup>-1992 [B3].<sup>a</sup>

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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-filled, self-cooled, pad-mounted, compartmental-type distribution transformers. These transformers are rated 5 MVA and smaller, with the high-voltage limit of 34.5 kV system nominal voltage and below, and with the low-voltage limit of 15 kV system nominal voltage and below. These transformers are generally used for step-down purposes from an underground primary cable supply. This standard covers the connector, bushing, and terminal arrangements for radial- or loop-feed systems. Either certain minimum dimensions or certain specific dimensions shall be specified. This standard does not cover the electrical and mechanical requirements of any accessory devices that may be supplied with the transformer.