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IEEE Standard for Pole-Mounted Equipment—Enclosure Integrity

STANDARDS

IEEE Power and Energy Society

Developed by the
Transformers Committee
and the
Switchgear Committee

IEEE Std C57.12.31™-2020
(Revision of IEEE Std C57.12.31-2010)

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IEEE Standard for Pole-Mounted Equipment—Enclosure Integrity

Developed by the

Transformers Committee
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Switchgear Committee
of the
IEEE Power and Energy Society

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IEEE SA Standards Board

Abstract: Conformance tests and requirements for the coating integrity of carbon steel pole-mounted enclosures containing apparatus energized in excess of 600 V, and not for application in coastal or other severe environments, are specified in this standard. These enclosures are typically located out of reach of the general public, and include, but are not limited to, the following types of equipment enclosures: pole-mounted distribution transformers, pole-mounted switches, pole-mounted regulators, pole-mounted metering equipment, pole-mounted reclosers, and pole-mounted switchgear.

Keywords: coating integrity, enclosure integrity, IEEE C57.12.31™, pole-mounted equipment, switches, transformers

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Introduction

This introduction is not part of IEEE Std C57.12.31-2020, IEEE Standard for Pole-Mounted Equipment—Enclosure Integrity.

The Accredited Standards Committee on Transformers, Regulators, and Reactors, C57, originally developed and correlated standards on these products, together with the Accredited Standards Committee on Power Switchgear, C37, through the Joint ASC C57/C37 Working Group on Enclosures with Joseph Martin and then with Robert C. Olen as chairman. This group is now the Enclosure Integrity Working Group of the IEEE Transformers Committee.

The data used in this work have been gathered from many sources, including the standards of the Institute of Electrical and Electronics Engineers and the National Electrical Manufacturers Association, reports of committees of the Edison Electric Institute, and others.

In this revision of the guide a Word usage clause was added, additional definitions were added, and a new coating touch up clause and normative reference were added. Further, the purpose of each test was clarified, and the standard was generally updated and clarified.

Contents

IEEE Standard for Pole-Mounted Equipment—Enclosure Integrity

1. Overview

1.1 Scope

This standard covers conformance tests and requirements for the enclosure integrity of pole-mounted electrical equipment containing apparatus energized in excess of 600 V. These enclosures contain energized electrical apparatus, typically not accessible to the general public, including, but not limited to, the following types of equipment:

a) Pole-mounted distribution transformers

b) Pole-mounted switches

c) Pole-mounted regulators

d) Pole-mounted metering equipment

e) Pole-mounted reclosers/sectionalizers

f) Pole-mounted capacitors

1.2 Purpose

The purpose of this standard is to describe the requirements for a comprehensive enclosure integrity system for pole-mounted equipment providing long service life with minimum maintenance.

1.3 Word usage

The word *shall* indicates mandatory requirements strictly to be followed in order to conform to the standard and from which no deviation is permitted (*shall* equals *is required to*).[1,2]

The word *should* indicates that among several possibilities one is recommended as particularly suitable, without mentioning or excluding others; or that a certain course of action is preferred but not necessarily required (*should* equals *is recommended that*).

[1]The use of the word *must* is deprecated and cannot be used when stating mandatory requirements; *must* is used only to describe unavoidable situations.
[2]The use of *will* is deprecated and cannot be used when stating mandatory requirements; *will* is only used in statements of fact.