IEEE Standards

IEEE Std C37.63™-2005
(Revision of
IEEE Std C37.63-1997)

C37.63™

IEEE Standard Requirements for Overhead, Pad-Mounted, Dry-Vault, and Submersible Automatic Line Sectionalizers for AC Systems

IEEE Power Engineering Society

Sponsored by the
Switchgear Committee

IEEE

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Abstract: Required definitions (for cutout type sectionalizers), ratings, procedures for performing design tests and production tests, constructional requirements, and application considerations for overhead and pad-mounted, dry-vault, and submersible automatic line sectionalizers for ac systems are specified.
Keywords: sectionalizers: cutout type, dry-vault, pad-mounted; submersible

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Introduction

This introduction is not part of IEEE Std C37.63-2005, IEEE Standard Requirements for Overhead, Pad-Mounted, Dry-Vault, and Submersible Automatic Line Sectionalizers for AC Systems.

This standard has been revised and updated from the 1997 version of ANSI C37.63. This revision incorporates significant improvements that reflect the present state of the art in automatic line sectionalizers. These improvements include changes and additions in the following areas:

- Reorganization of the tests into Clause 6, following a format similar to IEEE Std 1247™-1998 and making reference to IEEE Std 1247-1998 for most of the test procedures.
- Review of underground sectionalizers tank construction by referring to IEEE Std C37.74™.
- General structure of the document has been made similar to other distribution standards.
- Revised limits of temperature and temperature rise to be consistent with circuit breaker standards.
- Radio influence voltage and partial discharge tests have been reviewed and align on IEEE Std C37.60™-2003.
- Replaced dc withstand voltage test by very low frequency tests for all field aged cables, as recommended by IEEE Transmission and Distribution committee and IEEE Std 433™.
- Cutout type sectionalizers ratings have been reviewed and reference made to ANSI C37.42.
- A normative Annex B have been added to cover series coil ratings.
- The notes have been reviewed and those containing normative material have been changed to be included in the main text. The only notes left are informative.

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Participants

At the time this standard was completed, the working group had the following participants:

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Harry Hirz	Ka Ming Law	David Stone
George House	Ed Steele	John Wood
William Hurst		Jan Zawadzki

The following members of the individual balloting committee voted on this standard. Balloters may have voted for approval, disapproval, or abstention.

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CONTENTS

IEEE Standard Requirements for Overhead, Pad-Mounted, Dry-Vault, and Submersible Automatic Line Sectionalizers for AC Systems

1. Overview

1.1 Scope

This standard applies to all overhead, pad-mounted, dry-vault, and submersible single-pole or multipole alternating-current automatic line sectionalizers for rated maximum voltages from 1000 V to 38 000 V. Voltages above 38 000 V shall be considered special applications.

In order to simplify the terminology in this standard, the term *sectionalizer* has been substituted for *automatic line sectionalizer* wherever possible.

1.2 Purpose

The purpose of this standard is to describe the requirements for sectionalizers. Qualification to this standard should give reasonable assurance to the user that equipment meeting the requirements of this standard will perform in a satisfactory manner, provided that it has been properly selected for the intended application and is installed in accordance with the manufacturer's recommendations.

2. Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments or corrigenda) applies.

ANSI C37.85, American National Standard for Switchgear—Alternating-Current High-Voltage Power Vacuum Interrupters—Safety Requirements for X-Radiation Limits.[1]

ANSI C37.42, American National Standard for Switchgear—Distribution Cutouts and Fuse Links—Specifications.

[1]ANSI publications are available from the Sales Department, American National Standards Institute, 25 West 43rd Street, 4th Floor, New York, NY 10036, USA (http://www.ansi.org/).