

IEEE Standard Requirements for AC High-Voltage Air Switches Rated Above 1000 V

IEEE Power & Energy Society

Sponsored by the
Switchgear Committee

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IEEE Standard Requirements for AC High-Voltage Air Switches Rated Above 1000 V

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Abstract: Required ratings, construction requirements, design test requirements, applications, and suggested practices for all high-voltage enclosed indoor and outdoor and nonenclosed indoor and outdoor switches rated above 1000 V are specified. This includes ratings and requirements for such switches as disconnecting, selector, horn-gap, and grounding for manual and power operation, except for interrupter switches, distribution-enclosed single-pole air switches, and distribution cutouts fitted with disconnecting blades.

Keywords: high-voltage switches, IEEE C37.30.1, indoor switches, outdoor switches

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Introduction

This introduction is not part of IEEE Std C37.30.1-2011, IEEE Standard Requirements for AC High-Voltage Air Switches Rated Above 1000 V.

This standard is intended to be a consolidation of the following standards: IEEE Std C37.30TM-1997, ANSI C37.32-2002, IEEE Std C37.34TM-1994, IEEE Std C37.35TM-1995, IEEE Std C37.36bTM-1990, and IEEE Std C37.37TM-1996. This standard incorporates relevant material from earlier standards and replaces IEEE Std C37.30, ANSI C37.32, IEEE Std C37.34, IEEE Std C37.35, IEEE Std C37.36b, and IEEE Std C37.37. In addition, the Consolidation of C37.3x Series Working Group has strived to make minimal technical changes to the text from these standards. This consolidation effort is the first phase of a two-part process to facilitate harmonization of the IEEE C37.30 series of standards with existing International Electrotechnical Commission (IEC) documents covering switch devices. The second phase of the process will be to incorporate technical changes where needed and to harmonize with IEC standards.

This comprehensive document is the consummation of efforts of the Consolidation of C37.3x Series Working Group of the High Voltage Switches Subcommittee of the IEEE Switchgear Committee.

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1. Overview

1.1 Scope

This standard covers preferred ratings; construction and testing requirements; and application, loading, installation, operation, and maintenance guidelines for all high-voltage enclosed and nonenclosed, indoor and outdoor air switches rated in excess of 1000 V. This includes such switch types as disconnect, horn-gap, fault-initiation, and ground for manual or power operation. The following switch types are not covered by this standard: interrupter switches, distribution cutouts fitted with disconnecting blades, and switches used in metal-enclosed and pad-mounted switchgear. This standard also does not apply to load-break separable insulated connectors, circuit breakers, circuit switchers, or reclosers.

1.2 Purpose

The purpose of this standard is to provide a basic standard for air switches.