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IEEE Standard for Insulation-Piercing Connectors

IEEE SA Standards Board

Developed by the
Corporate Advisory Group

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IEEE Std 2780™-2019

IEEE Standard for Insulation-Piercing Connectors

Developed by the

Corporate Advisory Group
of the
IEEE SA Standards Board

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Abstract: The technical requirements, tests, inspection rules, sign, and package of insulation-piercing connector used in aerial insulated cable lines, bridges and culverts, galleries, tunnels, mines, cable wells, etc., for rated voltages up to 12kV are defined and described in this standard.

Keywords: IEEE 2780™, insulation-piercing connector, IPC, power-distribution network, splicing, test

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Introduction

This introduction is not part of IEEE Std 2780-2019, IEEE Standard for Insulation-Piercing Connectors.

This standard was prepared by the Insulation-Piercing Connectors Working Group to establish standard specifications for insulation-piercing connectors with rated voltages of 12 kV or less.

The purpose of this document is to define the requirements and test code for insulation-piercing connectors.

This standard utilizes feedback from manufacturers and users.

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IEEE Standard for Insulation-Piercing Connectors

1. Overview

1.1 Scope

This standard defines and describes the technical requirements, tests, inspection rules, sign, and package of insulation-piercing connectors (IPCs) used in aerial insulated cable lines, bridges and culverts, galleries, tunnels, mines, cable wells, etc., for rated voltages up to 12 kV.

1.2 Purpose

The purpose of this standard is to support the deployment of aerial insulated cables using IPCs. This standard enables reduced cost and expanded market applicability of deployment of aerial insulated cables.

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.

IEC 60060-1:2010, High-voltage test techniques—Part 1: General definitions and test requirements.[1]

IEC 61284:1997, Overhead lines—Requirements and tests for fittings.

ISO 2178:2016, Non-magnetic coatings on magnetic substrates—Measurement of coating thickness—Magnetic method.[2]

3. Definitions, acronyms, and abbreviations

3.1 Definitions

For the purposes of this document, the following terms and definitions apply. The *IEEE Standards Dictionary Online* should be consulted for terms not defined in this clause. [3]

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[2]ISO publications are available from the ISO Central Secretariat (https://www.iso.org/). ISO publications are also available in the United States from the American National Standards Institute (https://www.ansi.org/).
[3]*IEEE Standards Dictionary Online* is available at: http://dictionary.ieee.org.