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IEEE Standard for Shunt Power Capacitors

IEEE Power and Energy Society

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Transmission and Distribution Committee

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IEEE Std 18-2002)

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Abstract: Power capacitors rated 216 V or higher, 2.5 kvar or more, and designed for shunt connection to alternating-current transmission and distribution systems operating at a nominal frequency of 50 Hz or 60 Hz, are considered.
Keywords: capacitors, IEEE 18™, shunt connection, transmission and distribution systems

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Introduction

This introduction is not part of IEEE Std 18-2012, IEEE Standard for Shunt Power Capacitors.

This standard's principal objective is to provide a basis for uniformity in design, manufacturing and testing of shunt power capacitors.

As part of this revision, portions of NEMA CP1 have been incorporated into IEEE Std 18-2012. After approval and publication of this revision, NEMA plans to withdraw NEMA CP1. In the future, the NEMA working group for power capacitors will provide input to the IEEE Shunt Capacitor Standard Working Group to update IEEE Std 18.

A subclause on internal fuses for internally fused capacitors has been added to Clause 6.

Clause 7, the testing clause, has been divided into sections on design tests and production tests. Appropriate design and production tests have been added for internally fused capacitors. In addition, a significant new design test, 7.1.6 Performance test, has been added to the standard.

A new annex has been added to cover the test procedure for the disconnecting test on internal fuses for internally fused capacitors.

Contents

IEEE Standard for Shunt Power Capacitors

1. Scope

This standard applies to power capacitors rated 216 V or higher, 2.5 kvar or more, and designed for shunt connection to alternating current transmission and distribution systems operating at a nominal frequency of 50 Hz or 60 Hz.

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.

ASTM D1535, Standard Practice for Specifying Color by the Munsell System.[1]

IEEE Std 1036™, IEEE Guide for Application of Shunt Power Capacitors.[2, 3]

IEEE Std 1313.2™-1999, IEEE Guide for the Application of Insulation Coordination

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