

IEEE Standard Test Procedures and Requirements for High- Voltage Alternating-Current Cable Terminations

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(Revision of IEEE Std 48-1975)



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IEEE Standard Test Procedures and Requirements for High-Voltage Alternating- Current Cable Terminations

Sponsor
**Insulated Conductors Committee of the
IEEE Power Engineering Society**

Approved January 25, 1990
IEEE Standards Board

Abstract: IEEE Std 48-1990, *IEEE Standard Test Procedures and Requirements for High-Voltage Alternating-Current Cable Terminations*, applies to all indoor and outdoor cable terminations used on ac cables having laminated or extruded insulation rated 2.5 kV through 500 kV except separable insulated connectors.

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Foreword

(This foreword is not a part of IEEE Std 48-1990, IEEE Standard Test Procedures and Requirements for High-Voltage Alternating-Current Cable Terminations.)

This standard supersedes IEEE Std 48-1975, Standard Test Procedures for High-Voltage Alternating-Current Cable Terminations.

Table 1 (IEEE Std 48-1975), showing the Standard Dielectric Tests for High-Voltage Cable Terminations Assembled and Ready for Service, has been divided into two tables, Table 1 for Laminated Dielectric Cable Terminations, and Table 2 for Extruded Dielectric Cable Terminations.

A Cyclic Aging test (7.4.2) requirement has been added to the Dielectric Tests (6.1.1(8)).

The 6 h dry withstand test voltages for Laminated Cable Terminations 69 kV and above were revised to agree with current cable specifications.

This standard requires wet tests to be made in accordance with IEEE Std 4-1978. Test data obtained by the old wet test standard (IEEE Std 48-1975 and IEEE Std 29-1941) is considered valid test data. Tests on new terminations should be run in accordance with IEEE Std 4-1978. Refer to IEEE Std 4-1978 for additional information.

The number of consecutive Lightning or Switching Surge impulses applied to a test specimen has increased from three to ten.

Some Class 1 and Class 2 terminations have external leakage insulation made of polymeric material. It is recognized that there is some concern about the ability of such insulations to withstand weathering, ultraviolet radiation, contamination, and leakage currents, and that a test capable of evaluating the various materials would be desirable. There are available today a number of test procedures for this purpose. However, none of them has been recognized and adopted by the industry as a standard. Consequently this standard cannot and does not include such a test.

This standard was drawn up by a working group of the Accessories Subcommittee of the Insulated Conductors Committee having the following membership:

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