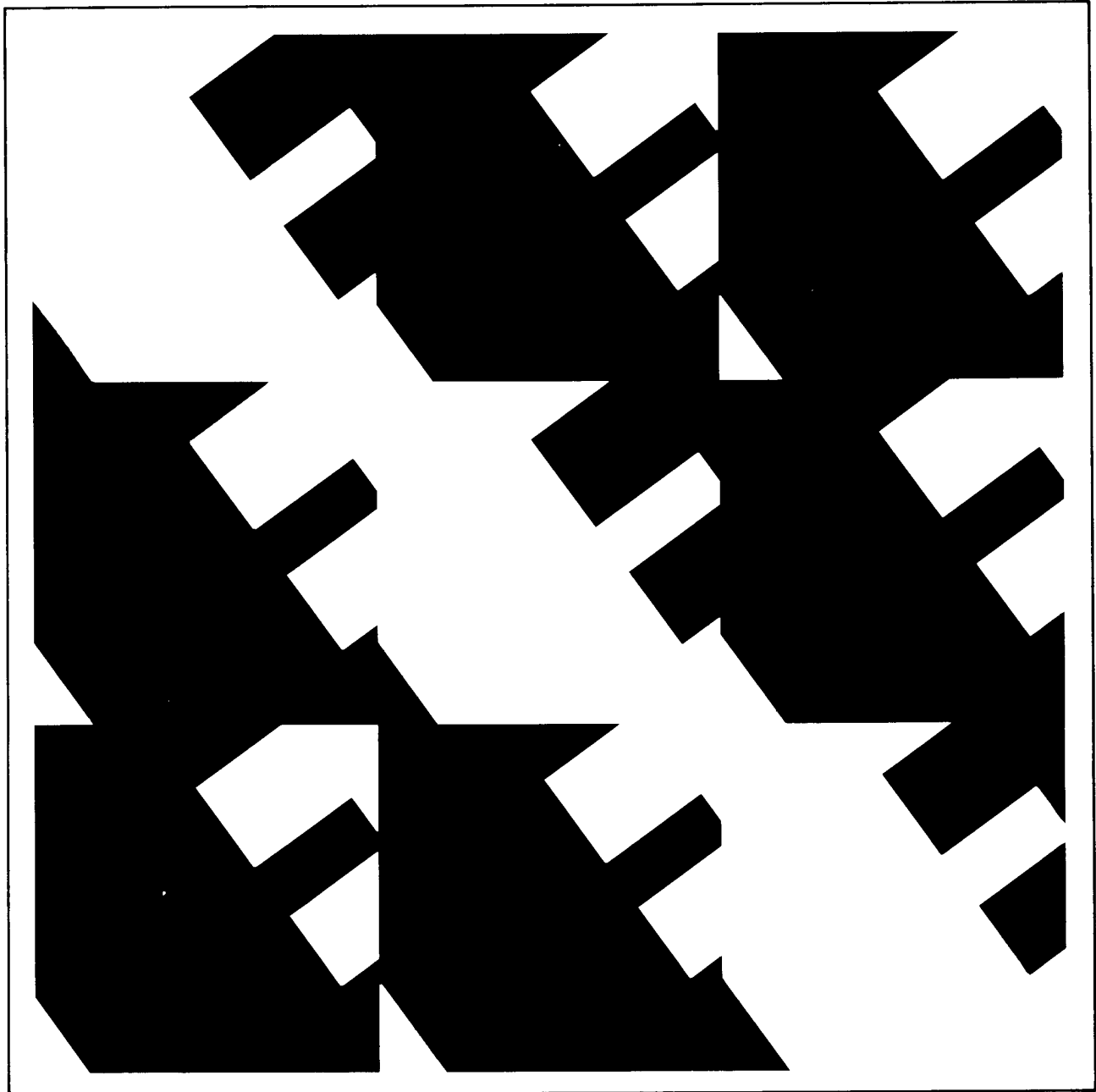


IEEE Standard Test Procedure for Evaluation of Systems of Insulation for Specialty Transformers



IEEE Std 259-1974



Published by The Institute of Electrical and Electronics Engineers, Inc. 345 East 47th Street, New York, NY 10017, USA

August 22, 1974

SH12591

IEEE Standard Test Procedure for Evaluation of Systems of Insulation for Specialty Transformers

Sponsor

**Transformer Committee of the
IEEE Power Engineering Society**

Approved June 22, 1972
Reaffirmed December 18, 1980

IEEE Standards Board

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Foreword

(This foreword is not a part of IEEE Std 259-1974, Test Procedure for Evaluation of Systems of Insulation for Specialty Transformers.)

Specialty transformers include types of transformers covered by American National Standard C89.1-1961 (R1969), *Requirements and Terminology for Specialty Transformers*. Generally, these transformers have their primary windings connected to secondary distribution circuits of 600 V or less, and they supply power to lighting systems, machine tools, and other power loads.

The IEEE charged its technical committees with the responsibility for developing test procedures for the thermal evaluation and classification of insulation systems used in electric equipment. These are to be in general accord with IEEE Std 1-1969, *General Principles for Temperature Limits in the Rating of Electric Equipment*. The principal objective is to enable the performance of new and old insulation systems to be compared directly in a practical way and in a reasonable time, and to provide a sound basis for introducing new insulation systems into service.

Experience has shown that the thermal life characteristics of composite insulation systems cannot be reliably inferred solely from information concerning component materials. To assure satisfactory service life, insulation specifications need to be supported by service experience or life tests. Accelerated life tests are being used increasingly to evaluate the many new synthetic insulating materials that are available, thus shortening the period of service experience required before they can be used with confidence. Tests on complete insulation systems, representative of each type of equipment, are necessary to confirm the performance of materials for their specific functions in the equipment.

The Institute wishes to acknowledge its indebtedness to those who have so freely given of their time and knowledge, and have conducted experimental work on which many of the IEEE publications are based.

This test procedure was prepared by the Working Group on Insulation Requirements for Specialty Transformers for the Subcommittee on Insulation Life of the Transformer Committee.

The Working Group, which developed this test procedure, had the following members at the time of approval:

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The Insulation Life Subcommittee who approved this standard had the following membership at the time of approval.

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