

American National Standard Test Procedures for Low-Voltage AC Power Circuit Protectors Used in Enclosures

Secretariat

**Edison Electric Institute Institute of Electrical and Electronics Engineers
National Electrical Manufacturers Association (Administrative)**

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American National Standards Institute, Inc

American National Standard

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Foreword

(This Foreword is not a part of American National Standard Test Procedures for Low-Voltage AC Power Circuit Protectors Used in Enclosures, C37-52-1974.)

This standard was developed as a replacement for Section 8. (Test Procedures) of American National Standard for Low-Voltage AC Power Circuit Protectors Used in Enclosures, C37.29-1974 (IEEE Std 508-1974), for the purpose of providing a separate document to facilitate use by independent testing laboratories. Since these test procedures are considered new by the laboratories, experience factors may require revision and a separate document can be revised quickly and economically.

This standard is one of several in a series of test procedures standards for certification of various switchgear products. They establish the mandatory requirements that a product must meet (as certified by an independent testing laboratory) in order to satisfy federal law and local electrical codes.

In developing this standard, the C37 Subcommittee carefully reviewed testing-laboratory policies on reexamination service. At all times, the subcommittee made a diligent effort to incorporate all aspects known to be required by testing laboratories as well as to retain consistency with Section 8 of American National Standard for Low-Voltage AC Power Service Protectors, C37.29-1970. One necessary but new requirement is the testing in sequence of one circuit protector through a specified series of tests without repair or replacement of parts. This concept differs from Section 8 of American National Standard C37.29-1970 because that permits a new or different circuit protector for each of the different tests, so that no single circuit protector is required to be subjected to a cumulative testing program.

While this standard was being developed, coordination was made with the IEEE Low-Voltage Switchgear Devices Subcommittee at the same time it was revising American National Standard C37.29-1970 and with the NEMA Low-Voltage Power Circuit Breaker Technical Committee. American National Standard C37.29-1974 (IEEE Std 508-1974) and this standard are in accord and have been developed to represent standard practice in the United States for low-voltage power circuit protectors.

This standard was processed and approved for submittal to ANSI by American National Standards Committee on Power Switchgear, C37. Committee approval of the standard does not necessarily imply that all committee members voted for its approval. At the time it approved this standard, the C37 Committee had the following members:

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W. E. Laubach (Executive Vice-Chairman, Low Voltage Standards)
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The C37 Subcommittee on Certification Test Procedures, which reviewed and approved this standard, had the following personnel:

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This standard replaces Section 8 of American National Standard for Low-Voltage AC Power Circuit Protectors Used in Enclosures, C37.29-1974 (IEEE Std 508-1974).

1. General

1.1 Scope

This standard covers the test procedures for enclosed low-voltage ac power circuit protectors.

NOTE — In this standard, the term “circuit protector” shall be considered to mean “enclosed low-voltage ac power circuit protector,” unless qualified by other descriptive terms.

1.2 Related Standards

This standard is intended for use in conjunction with the following American National Standards (see Section 8):

[1] American National Standard Methods for Determining the Values of a Sinusoidal Current Wave and a Normal-Frequency Recovery Voltage for AC High-Voltage Circuit Breakers, C37.05-1964 (R1969)

[2] American National Standard Preferred Ratings, Related Requirements, and Application Recommendations for Low-Voltage Power Circuit Breakers and AC Power Circuit Protectors, C37.1 6-1973

[3] American National Standard for Switchgear Assemblies Including Metal-Enclosed Bus, C37.20-1969

[4] American National Standard Guide for Determining Methods of Power Factor Measurements for Low-Voltage Inductive Test Circuits, C37.26-1972 (IEEE Std 330-1972)

[5] American National Standard for Low-Voltage AC Power Circuit Protectors Used in Enclosures, C37.29-1974 (IEEE Std 508-1974)