

ANSI
C37.074-1972

IEEE
Std 339-1972

An American National Standard
IEEE Standard
**Requirements for Switching-Impulse Voltage
Insulation Strength
for AC High-Voltage Circuit Breakers
Rated on a Symmetrical Current Basis
(362 kV and Above)**



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Sponsor

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

Approved December 10, 1969

IEEE Standards Committee

Secretariat

**Edison Electric Institute
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National Electrical Manufacturers Association**

Approved May 18, 1972

American National Standards Institute

American National Standard

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Foreword

(This Foreword is not a part of American National Standard and IEEE Standard Requirements for Switching-Impulse Voltage Insulation Strength for AC High-Voltage Circuit Breakers Rated on a Symmetrical Basis, 362 kV and Above, ANSI C37.074-1972, IEEE Std 339-1972.)

This standard is an addition to the series of American National Standards and IEEE Standards on ac high-voltage circuit breakers rated on a symmetrical current basis as follows:

C37.03-1964 (R 1969)	Definitions for AC High-Voltage Circuit Breakers
C37.04-1964 (R 1969)	Rating Structure for AC High-Voltage Circuit Breakers (Including Supplements)
C37.05-1964 (R1969)	Methods for Determining the Values of a Sinusoidal Current Wave and Normal-Frequency Recovery Voltage for AC High-Voltage Circuit Breakers
C37.06-1971	Schedules of Preferred Ratings and Related Required Capabilities for AC High-Voltage Circuit Breakers
C37.07-1969	Interrupting Capability for Reclosing Service for AC High-Voltage Circuit Breakers
C37.09-1964 (R1969)	Test Procedure for AC High-Voltage Circuit Breakers (Including Supplements)
C37.010-1964 (R 1969) (IEEE Std 320)	Application Guide for AC High-Voltage Circuit Breakers (Including Supplement)
C37.11-1957* (R1966)	Requirements for Power Circuit Breaker Control
C37.12-1969*	Guide Specifications for AC High-Voltage Circuit Breakers (Rated on a Symmetrical Current Basis and a Total Current Basis)

The need for this standard, as an addition to American National Standard C37.09-1964 (R1969) is rooted in the fact that switching overvoltages as brought about by the switching of open, loaded, or shorted lines and equipment, is a major factor in determining the insulation strength requirements of the higher voltage systems.

This standard is one of several being developed on subjects applicable to ac high-voltage circuit breakers covered by the standards listed above. These standards will be published as soon as the work is completed and it has been approved, rather than waiting until all are complete to effect a complete revision of the basic standards. This approach will make the standards more readily available to the industry. It is planned in the future to integrate these standards into revisions of the basic American National Standards on circuit breakers. These additional standards are:

C37.071-1971	Requirements for Line Closing for Switching Surge Voltage Control for AC High-Voltage Circuit Breakers Rated on a Symmetrical Current Basis
C37.072-1971 (IEEE Std 327-1971)	Requirements for Transient Recovery Voltage
C37.0721-1971 (IEEE Std 328-1971)	Application Guide for Transient Recovery Voltage
C37.0722-1971	Preferred Transient Recovery Voltage Ratings and Related Required Capabilities
C37.073-1972 (IEEE Std 341-1972)	Requirements for Capacitance Current Switching
C37.0731 (IEEE Std 342)	Application Guide for Capacitance Current Switching
C37.0732-1972	Preferred Ratings for Capacitance Current Switching
C37.074-1972 (IEEE Std 339-1972)	Requirements for Switching-Impulse Voltage Insulation Strength
C37.076-1972 (IEEE Std 340-1972)	Requirements for Pressurized Components
C37.077	Requirements for Current Transformers
C37.078-1972 (IEEE Std 343-1972)	Requirements for External Insulation (Outdoor)