

An American National Standard

**Standard for AC High-Voltage Air Switches
(in excess of 1000 volts)**

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Switchgear Committee of the
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Foreword

[This Foreword is not a part of ANSI/IEEE C37.37-1979, American National Standard Loading Guide for AC High-Voltage Air Switches (in excess of 1000 volts.)]

ANSI/IEEE C37.30-1971, Definitions and Requirements for High Voltage Air Switches, Insulators and Bus Supports, has introduced several new concepts that broaden the load current-carrying capabilities of air switches. These concepts include:

1) **Allowable continuous current**, which is the maximum current that an air switch can carry at specified ambients without exceeding the **allowable maximum temperature** assigned to its switch parts.

2) **Allowable continuous current class**, which is a designation required on the air switch nameplate.

3) **Loadability factor**, which reflects the allowable continuous current capability at various ambient temperatures. This factor is 1.22 at 25°C and is, at this temperature, the common denominator for all past switches per ANSI C37.30-1962 and all future switches per ANSI/IEEE C37.30-1971.

4) A new table of **temperature limitations for air switches**, wherein various switch parts such as contacts, conducting mechanical joints, switch terminals, and other current-carrying parts, each have their own **allowable maximum temperature** and **limit of observable temperature rise at rated continuous current**.

ANSI/IEEE C37.37-1979 is a loading guide that utilizes these new concepts to establish the criteria to designate the load current-carrying capabilities of air switches over a range of ambient temperatures. This is accomplished through a family of loadability factor curves. The loadability factors are also presented in tabular form in the same manner as in ANSI/IEEE C37.010-1979, American National Standard Application Guide for AC High-Voltage Circuit Breakers Rated on a Symmetrical Basis.

The Standards Committee on Power Switchgear, C37, which reviewed and approved this standard, had the following personnel at the time of approval:

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