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AMERICAN NATIONAL STANDARD

FOR

ELECTRIFIED LOCKING DEVICES



SPONSOR

BUILDERS HARDWARE MANUFACTURERS ASSOCIATION, INC.

AMERICAN NATIONAL STANDARDS INSTITUTE

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AMERICAN NATIONAL STANDARD

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FOREWORD (This Foreword is not a part of ANSI/BHMA A156.25)

The general classification of builders hardware includes a wide variety of items which are divided into several categories. To recognize this diversity, a sectional classification system has been established. The Electrified Locking Devices Standard is a result of the collective efforts of members of several sections of the Builders Hardware Manufacturers Association, Inc. who manufacture these products. The total Product Standards effort is, therefore, a collection of sections, each covering a specific category of items.

Performance tests and, where necessary, material and dimensional requirements have been established to insure safety and stability to which the public is entitled. There are no restrictions on design except for those dimensional requirements imposed for reasons given above.

This Standard is not intended to obstruct but rather to encourage the development of improved products, methods and materials. The BHMA recognizes that errors will be found, items will become obsolete, and new products, methods and materials will be developed. With this in mind, the Association plans to update, correct and revise this Standard on a regular basis.

In most cases, products have been described in grade levels related to performance. Choice of grade and specific product are to be made on the basis of utility, aesthetics, security objectives and end use describedter

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1. SCOPE

1.1 Electrified locking systems are usually comprised of four functional components: locking devices, input devices, controlling devices, and power supplies. This Standard establishes requirements for the locking devices, whose mechanical aspects are described in the applicable BHMA product Standards; in addition, where the input or controlling device or both are an integral part of the locking device, they shall also be tested with the locking device covered by this Standard. This Standard includes requirements for cyclical, security, operational, strength, and environmental tests for these products.

1.2 Tests described in this Standard are performed under laboratory conditions. In actual usage, results may vary because of installation, maintenance, and environmental conditions.

2. DEFINITIONS

2.1 **Accessory Equipment** Pieces of equipment attached to or added to a product and are of such size that they are capable of being marked for identification by a catalog number or equivalent. Accessory equipment usually is dependent upon a basic part of a system for mechanical support, electrical input, or both; and may or may not, by itself, perform a complete function.

2.2 **Controlling Device** A device that processes the input signal and gives instructions to the locking device to perform certain functions.

2.3 **Duty Cycle** A figure of merit applied to devices designed to operate only intermittently. It requires two numbers to specify: the maximum percentage of time the device may be activated and the maximum continuous activation time.

2.4 **Electrical Fast Transient (EFT)** "Transient" is a term applied to either parameter (Current or voltage). It describes either parameter (current or voltage) as a function of time during the period of adjustment (the transient period) when in a steady-state-circuit a switch is activated which changes the circuit and the parameters are adjusting to their new steady-state values. "Fast" is an arbitrary term, which describes the time between switch activation and the parameter becoming asymptotic to its new value. For the purposes of this Standard, a transient period of a millisecond or less is regarded as a "fast transient" or EFT.

2.5 **Electrified Locking Device** An electrically powered device which enables a door to be locked or unlocked in response to an electric signal.

2.6 Environmental Types

2.6.1 **Full Outdoor Type** An electrified device which, when installed as intended by the manufacturer, has the entire electrified locking device fully exposed to an outdoor environment.

2.6.2 **Full Indoor Type** An electrified locking device which, when installed as intended by the manufacturer, has the entire electrified locking device fully exposed to an indoor environment.

2.6.3 **Locked Outdoor Type** An electrified locking device which, when installed as intended by the manufacturer, has its locked side exposed to the outdoor environment and an indoor environment on the other side.

2.6.4 **Locked Indoor Type** An electrified locking device which, when installed as intended by the manufacturer, has its unlocked side exposed to the outdoor environment and an indoor environment on the other side.

2.7 **Externally Powered Lock** A lock that relies on a wired connection to an external power source for maintaining normal operation.