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Revision of BHMA A156.3-2014

STANDARD

FOR

EXIT DEVICES

SPONSOR

BUILDERS HARDWARE MANUFACTURERS ASSOCIATION, INC

AMERICAN NATIONAL STANDARD INSTITUTE

Approved: November 13, 2020

AMERICAN NATIONAL STANDARD

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FOREWORD (This Foreword is not a part of ANSI/BHMA A156.3)

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. Exit devices is one such section and this Standard is the result of the collective efforts of members 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.

The BHMA recognized 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 these Standards on a regular basis.

In most cases, products have been described in grade levels related to performance with Grade 1 being the highest rating. Some products described are suitable for use according to conditions and are not graded. Grade classifications indicate levels only within their own product category. Choice of grade and specific product should be made on the basis of utility, aesthetics, security objectives and end use desired.

The BHMA numbers which indicate types and functions of hardware do not identify size, finish, material or design and are not intended to be used without necessary supplementary information.

Users of this Standard are cautioned over the selection of exit devices to be installed on fire doors. Only devices investigated for both fire and panic protection may be used. Labels employed by laboratories listing such devices bear the designation, "Fire Exit Hardware." Other devices, although suitable for many doors within a means of egress, may not be used with fire door assemblies. The fire door must also bear a label containing the phrase, "Fire Door to be equipped with Fire Exit Hardware".

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1. SCOPE

1.1 This standard establishes requirements for exit devices and trim, automatic flush bolts, removable mullions, coordinators, and carry-open bars. Performance criteria include cycle, operational, strength, material evaluation, finish and security tests. Functions and types are described and numbered.

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

2. GENERAL

2.1 All products certified to this standard shall be listed or labeled by a Nationally Recognized Testing Laboratory (NRTL) and be subject to periodic examination service.

2.2 Exit devices are available in Grades 1, 2, and 3 with grade 1 being the highest grade. All are suitable for all classes of buildings and are based on the performance tests listed. A Grade 1 exit device shall be furnished with all Grade 1 trim and cylinders, when supplied, in order to retain an overall Grade 1 rating. A Grade 2 exit device shall be furnished with grade 2, or higher, trim and cylinder in order to retain an overall Grade 2 rating; and similarly for Grade 3 rating.

2.3 Door coordinators Type 21A are available in Grade 1 and 2. Door coordinators Type 21B are available in Grade 2. Both Grades are suitable for all classes of buildings and are based on performance tests listed.

2.4 Carry-open bars are available in Grades 1 and 2. Both are suitable for all classes of buildings and are based on the performance test listed. When coordinators are installed with carry-open bars, the Grade of the combination is the lower Grade of either component.

2.5 All exit devices shall meet the requirements and performance tests found in Underwriters Laboratories, Inc. Standard UL305 – 2017 Panic Hardware.

2.6 The cycling requirements listed shall not be considered as being in addition to those required by UL305 but comprise the total required.

2.7 Reinforcements are permitted to be used to prevent deformation of the door when the tests are being applied. Optional brackets may be used to provide clearance for weights and applied loads where hardware makes direct attachment or application impractical. When brackets are used, the grounding points to the door shall be equidistant about the originally identified point of application (see Figure C-1 in appendix). Brackets are not intended to redistribute the load or change the direction of application. Use of specific brackets shall be approved by the National Certified Testing Laboratory.

2.8 **Values** Required values in this Standard are given in US units. The SI (metric) equivalents are approximate. All values which do not carry specific tolerances or are not marked maximum or minimum shall have the following tolerances: Linear dimensions shall be ± 1/16 in (1.6 mm). Pounds or pound force shall be ± 5%. Angular measurements shall be ± 4 degrees. Voltage measurements shall be ± 5 percent. Temperature measurements shall be ± 4 degrees F (±2 degrees C).

2.9 For testing, other mechanisms are permitted to be used in lieu of cylinders providing the test performance is equivalent to that of a cylinder.

2.10 The provisions of this Standard evaluate locks as a component and do not take under consideration the variety of doors, frames and other components available, some of which are vulnerable under the kinds of attacks described. Therefore, the user of this Standard should select doors, frames and surrounding wall systems compatible with the level of lock security selected.