

ANSI/BHMA A156.19-2007
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AMERICAN NATIONAL STANDARD
FOR
POWER ASSIST AND LOW ENERGY POWER OPERATED DOORS



SPONSOR
BUILDERS HARDWARE MANUFACTURERS ASSOCIATION, INC.

AMERICAN NATIONAL STANDARDS INSTITUTE, INC.

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AMERICAN NATIONAL STANDARD

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FOREWORD (This Foreword is not a part of ANSI/BHMA A156.19)

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. Power Operated Doors is one such section and this Standard is a result of the collective efforts of members of the Builders Hardware Manufacturers Association, Inc. who manufacture this product. The total Product Standards effort is, therefore, a collection of sections, each covering a specific category of items.

Performance tests and, where necessary, dimensional requirements have been established to ensure a degree of safety. There are no restrictions on design except for those dimensional requirements imposed for reasons of safety.

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 these Standards on a regular basis. It shall also be the responsibility of manufacturers to request such appropriate revisions.

TABLE OF CONTENTS

| | | |
|----|--------------------------------------------------------------------|---|
| 1. | GENERAL..... | 5 |
| 2. | DEFINITIONS..... | 5 |
| 3. | REQUIREMENTS FOR SWINGING POWER ASSIST DOORS | 6 |
| 4. | REQUIREMENTS FOR LOW ENERGY SWINGING POWER OPERATED DOORS | 6 |
| 5. | CYCLE TESTS..... | 7 |
| 6. | SIGNS | 8 |
| | APPENDIX A (not a part of ANSI/BHMA A156.19) | 9 |

1. GENERAL

1.1 Requirements in this Standard apply only to swing door operators. The operator types are power assist, and low energy power operators, for pedestrian use, and some small vehicular use. It does not address doors, finish or hardware. The activation of all doors described in this standard requires a knowing act. Included are provisions intended to reduce the chance of user injury or entrapment.

1.2 Doors that require higher speeds, forces, shorter time delays, and activating sensing devices shall comply with ANSI/BHMA A156.10 for Power Operated Pedestrian Doors and are not covered in A156.19.

1.3 This Standard does not attempt to assess any factors that exist with respect to custom design installations which are not required to meet the requirements of this Standard.

1.4 Unless otherwise specified, all references to time delay, opening speed and forces in this standard, refer to the operator in the power mode as opposed to the manual mode.

1.5 Required dimensions are expressed in US units first and the SI (metric) equivalents given in parentheses 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 $\pm 1/16$ in (1.6 mm). Pounds or pound force shall be $\pm 5\%$. Angular measurements shall be ± 4 degrees. Voltage measurements shall be ± 5 percent. Temperature measurements shall be ± 4 degrees F (± 2 degrees C).

1.6 Compliance with the requirements of this standard shall be accomplished through factory settings or field adjustments as necessary.

1.7 Operators used on labeled fire door assemblies shall be listed or labeled by a nationally recognized independent testing laboratory, and be subject to a periodic in-plant follow-up service. Consult the authority having jurisdiction for the appropriate fire test requirements.

2. DEFINITIONS

2.1 **Knowing Act** Consciously initiating the powered opening of a low-energy door using acceptable methods including: wall or jamb-mounted contact switches such as push plates; fixed non-contact switches; the action of manual opening (pushing or pulling) a door; and controlled access devices such as keypads, card readers, and keyswitches.

2.2 **Low Energy Power Operated Door** A door with a power mechanism that opens the door upon receipt of a knowing act activating signal, does not generate more kinetic energy than specified in this Standard, and is closed by a power mechanism or by other means.

2.3 **Power Assist Door** A door with a power mechanism that activates by pushing or pulling the door, reducing the opening resistance of a self closing door to allow easier manual opening of the door. If the opening force on the door is released, the door shall come to a stop and either immediately begin to close, or begin to close after a predetermined time.

2.4 **Push-Pull Activation** A door where the user pushes or pulls a door equipped with a Low Energy Power Operator to activate a mechanism, causing the door to go through a complete cycle of automatic opening, hold open time delay, and closing.

2.5 **Small Vehicular** Carts used to transport people or objects.