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**GB/T 4706.101-2010** / IEC 60335-2-97:2009

**Household and similar electrical appliances - Safety -  
Particular requirements for drives for rolling shutters,  
awnings, blinds and similar equipment**

(IEC 60335-2-97:2009, IDT)

家用和类似用途电器的安全

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## Foreword

All technical contents of this Part are mandatory.

GB 4706 *Safety of household and similar electrical appliances* consists of several parts. Part 1 is general requirements; the rest are particular requirements.

This Part is the 101<sup>st</sup> Part of GB 4706.

This Part shall be in use with GB 4706.1-2006 *Safety of household and similar electrical appliances; General requirements*.

This Part was drafted in accordance with the rules given in GB/T 1.1-2009.

This Part uses translation method to identically adopt IEC 60335-2-97:2009 *Household and similar electrical appliances - Safety - Part 2-97: Particular requirements for drives for rolling shutters, awnings, blinds and similar equipment*, including its Supplement 1 (2004) and Supplement 2 (2008).

This Part made the following editorial modifications:

- modified “Part 1” to “GB 4706.1”;
- used decimal point “.” to replace “,” that was used as decimal point.

Attention is drawn to the possibility that some of the elements of this Part may be the subject of patent rights. The issuing authority shall not be held responsible for identifying any or all such patent rights.

This Part was proposed by China Light Industry Federation.

This Part shall be under the jurisdiction of National Technical Committee on Home Appliances of Standardization Administration of China (SAC/TC 46).

The drafting organizations of this Part: Shenzhen Inspection and Quarantine Science Research Institute, Foshan Quality Supervision and Inspection Center, Zhejiang Inspection and Quarantine Science and Technology Research Institute, China Household Electrical Appliances Research Institute, Zhejiang Quality and Technical Supervision and Testing Institute, Shanghai Entry-Exit Inspection and Quarantine Bureau Electromechanical Product Testing Technology Center, Ningbo Product Quality Supervision and Inspection Research Institute.

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# Household and similar electrical appliances - Safety - Particular requirements for drives for rolling shutters, awnings, blinds and similar equipment

## 1 Scope

This clause of GB 4706.1-2005 is replaced by the following.

This Part of GB 4706 deals with the safety of electric drives for rolling equipment such as shutters, blinds and awnings, intended for household and similar purposes, their rated voltage being not more than 250 V for single-phase appliances and 480 V for other appliances.

Drives for equipment with a spring-controlled driven part, such as a folding arm awning, are also within the scope of this Part.

**NOTE 101** Examples of rolling equipment that can be driven are

- awnings;
- blinds;
- grilles covering doors and windows;
- projection screens;
- shutters covering doors and windows.

Examples are shown in Figure 101.

**NOTE 102** Drives may be supplied with a driven part.

Appliances not intended for normal household use but that nevertheless may be a source of danger to the public, such as appliances intended to be used by laymen in shops, in light industry, on farms and on industrial premises, are within the scope of this Part.

As far as is practicable, this Part deals with the common hazards presented by appliances that are encountered by all persons in and around the home. However, in general, it does not take into account playing with the appliance by young children but recognizes that children may be in the vicinity.

driven part shall not unroll in an uncontrolled manner.

After 15 s, the driven part is retracted.

The drive is then supplied at 0.9 times rated voltage and started 10 times from different positions in the rolling direction so as to retract the driven part. The drive is allowed to come to rest between successive starts.

The drive shall retract the driven part to the fully rolled position each time and protective devices shall not operate.

**20.103** The actuation of a control to stop the unrolling movement shall be effective. Compliance is checked by the following test.

The drive is supplied at rated voltage and operated under normal operation in the unrolling direction and the control is then actuated.

The driven part shall not move more than 100 mm before stopping.

NOTE The release of a biased-off switch is deemed to be actuation.

**20.104** Drives supplied with a driven part shall operate so that injury is prevented during the unrolling movement.

This requirement is deemed to be met if the appliance is controlled by a fixed biased-off switch only or if the driven part, when fully unrolled, is at a height of at least 1.8 m.

For roller shutters fitted to a roof or ceiling window, compliance is checked by inspection, by measurement or by the tests of 20.104.1, or 20.104.2 or 20.104.3. For other appliances, compliance is checked by inspection, by measurement or by the tests of 20.104.1 or 20.104.2.

**20.104.1** The appliance is supplied at rated voltage and operated under normal operation in the unrolling direction. An obstacle is placed 400 mm above the fully unrolled position.

The force exerted by the bottom edge of the driven part is measured.

The test is repeated with the obstacle placed 100 mm above the fully unrolled position.

The force shall not exceed

- 25 N, for more than 5 s;
- 150 N, for more than 0.5 s.

NOTE Impact forces are not measured.

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