



SLOVENSKI STANDARD

SIST EN 14202:2005

01-januar-2005

Polkna in rolete - Primernost za uporabo motoriziranih pogonov z valjastimi vodili ali z vodili s pravokotnim presekom - Zahteve in preskusne metode

Blinds and shutters - Suitability for use of tubular and square motorizations - Requirements and test methods

Abschlüsse - Gebrauchstauglichkeit von Rohr- und Blockmotoren - Anforderungen und Prüfverfahren

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Stores extérieurs et fermetures pour baies équipées de fenêtres - Aptitude à l'emploi des actionneurs électriques tubulaires ou carrés - Exigences et méthodes d'essais

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Ta slovenski standard je istoveten z: EN 14202:2004

ICS:

91.060.50 Vrata in okna Doors and windows

SIST EN 14202:2005 **en**

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EUROPEAN STANDARD

EN 14202

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2004

ICS 91.060.50

English version

Blinds and shutters - Suitability for use of tubular and square motorizations - Requirements and test methods

Stores extérieurs et fermetures pour baies équipées de fenêtres - Aptitude à l'emploi des actionneurs électriques tubulaires ou carrés - Exigences et méthodes d'essais

Abschlüsse - Eignung von Einsteckantrieben und Jalousieantrieben - Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 13 May 2004.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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Contents

	page
Foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Endurance test	5
4.1 Test rig	5
4.2 Test load	7
4.3 Testing	7
5 Performance requirements	8
5.1 General.....	8
5.2 Variation of the speed under load.....	8
5.3 Accuracy of the limit stops positions.....	8
5.4 Characteristics of the brake	9
5.5 Grease or oil leakage.....	9
6 Test report	9
Bibliography	11

[SIST EN 14202:2005](https://standards.iteh.ai/catalog/standards/sist/5bb71ff-d808-4ebb-bcb5-7efc8f26a58b/sist-en-14202-2005)
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Foreword

This document (EN 14202:2004) has been prepared by Technical Committee CEN/TC 33 "Doors, windows, shutters, building hardware and curtain walling", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2005, and conflicting national standards shall be withdrawn at the latest by January 2005.

It is part of a series of standards dealing with blinds and shutters for buildings as defined in EN 12216.

The requirements and method of testing are linked to the performance requirements for internal blinds, external blinds and shutters, as specified in EN 13120, EN 13561 and EN 13659.

NOTE Noise of the motorization: as far as presently known, there is no simple and economically acceptable way of characterising and measuring the solid-borne power level of motorization, which would allow the assessment of the global acoustic performances for the fully assembled and installed end-product.

No existing European Standard is superseded.

According to the CEN/GENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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EN 14202:2004 (E)**1 Scope**

This document specifies the requirements and tests to be performed for electric tubular or square drives without driven part, to be applied to power operated blinds and shutters, in addition to their conformity to the electrical safety requirements specified in EN 60335-1 and EN 60335-2-97.

It does not apply to drives with driven part.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 12216:2002, *Shutters, external blinds, internal blinds – Terminology, glossary and definitions.*

EN 60335-1:2002, *Household and similar electrical appliances – Safety – Part 1: General requirements (IEC 60335-1:2001, modified).*

EN 60335-2-97:1998, *Safety of household and similar electrical appliances – Part 2-97: Particular requirements for drives for rolling shutters, awnings, blinds and similar equipment (IEC 60335-2-97:1998, modified).*

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3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12216:2002, EN 60335-1:2002, EN 60335-2-97:1998 and the following apply.

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3.1**drive**

motor and other components which control the movement of the driven part

NOTE Examples of components are gears, controls and brakes.

3.2**tubular motorization, square motorization**

it is made up of:

— the drive itself

— the various parts used as an interface between the drive and the different roller tubes (tubular motorization), and between the drive and the various headrails (square motorization), specified by the manufacturer in his technical documentation

3.3**driven part**

part such as rolling shutter, awning or blind that is operated by the drive

3.4**drive without driven part (stand alone drive)**

drive for which the electrical safety requirements according to EN 60335-2-97 are achieved by the drive itself

3.5

drive with driven part (built-in drive)

drive for which the electrical safety requirements according to EN 60335-2-97 are achieved only when the drive is integrated in the complete product

NOTE This type of drive can only be supplied as a component.

3.6

operation cycle

time to achieve a full raising and lowering including rest times specified by the manufacturer

4 Endurance test

4.1 Test rig

Consists of a frame more or equal to 0,9 m wide and of sufficient height to enable the test load to hang freely during the whole test.

The transverse beam and its fixings shall be rigid enough to withstand the forces without any deformation that could affect the results consisting of:

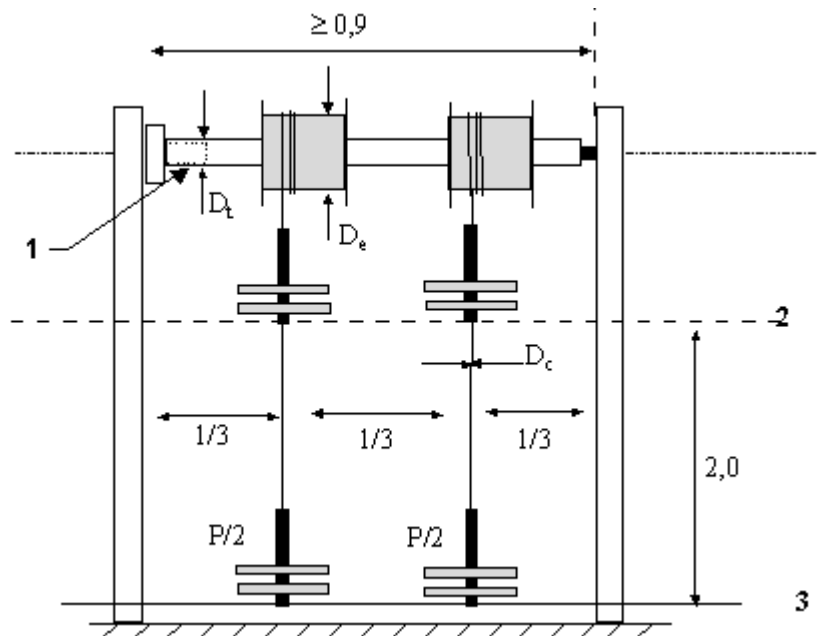
a) Case of tubular motorizations (see Figure 1)

A roller tube with the diameter D_t . The motorization to be tested is located at one end of the tube. On that roller tube are fitted two drums of diameter D_e .

D_t and D_e are specified in 4.2.

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Dimensions in metres



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Key

- 1 Motorization to be tested
- 2 Upper limit position
- 3 Lower limit position

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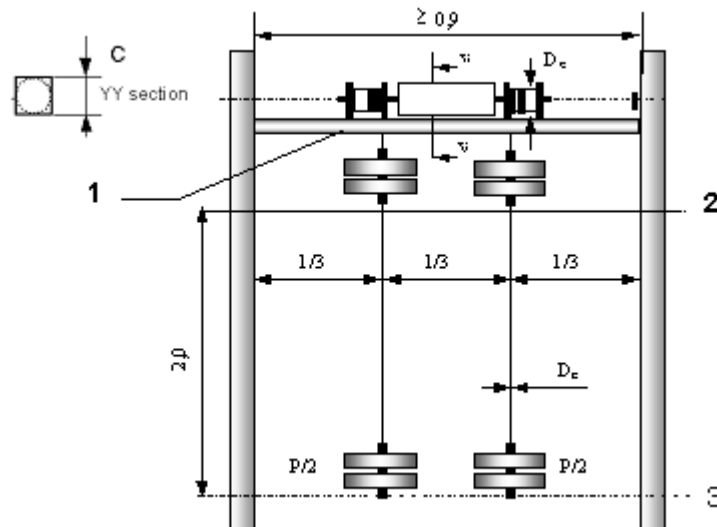
Figure 1 — Test rig for tubular motorization

b) Case of square motorization (see Figure 2)

A profile able to support the motorization and the test load. The motorization is firmly coupled-up to the cable rollers consisting of two drums of diameter D_e , so that the central shaft(s) are only subjected to rotation. It is situated either at the centre of the frame (double output motor), or at the end of the beam (single output motor).

D_e is specified in 4.2.

Dimensions in metres

**Key**

- 1 Motorization to be tested
- 2 Upper limit position
- 3 Lower limit position

Figure 2 — Test rig for square motorization with a double output
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4.2 Test load

The test load P is distributed equally ($P/2$) on the two drums, producing three equal parts of the frame. The travelling distance of the test load is 2 m.

P is determined by the following equation:

$$P = 2 \times M / (D_e + D_c) \quad [\text{N}] \quad (1)$$

where

— M is the nominal torque of the motorization, in Nm;

— D is the diameter of the drums, in m:

- For the tubular motorization,

- $D_e = 0,080 \text{ m}$ if $D_t \geq 0,040 \text{ m}$

- $D_e = 1,1 D_t$ if $D_t < 0,040 \text{ m}$

With D_t the smallest roller tube diameter specified by the drive manufacturer.

- For the square motorizations,

- $D_e = D_t$

With D_t the diameter of the circle inscribed in the external contour C of the drive to be tested, multiplied by factor 0,6 (see Figure 2, cross-section YY).

— D_c is the diameter of the roller cable measured when loaded, in m.

4.3 Testing

The endurance test is carried out under the following conditions: