

MASINKÄITUSEGA UKSED. TOOTESTANDARD JA TOODETE OMADUSED. MASINKÄITUSEGA UKSEPLOKID (VÄLJA ARVATUD PENDELUKSED), MIS ON ALGSELT KAVANDATUD KASUTAMISEKS MASINKÄITUSEGA

Power operated pedestrian doors - Product standard, performance characteristics - Pedestrian doorsets, other than swing type, initially designed for installation with power operation

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 16361:2013+A1:2016 sisaldab Euroopa standardi EN 16361:2013+A1:2016 ingliskeelset teksti.	This Estonian standard EVS-EN 16361:2013+A1:2016 consists of the English text of the European standard EN 16361:2013+A1:2016.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 13.07.2016.	Date of Availability of the European standard is 13.07.2016.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 91.060.50

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:

Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD

EN 16361:2013+A1

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2016

ICS 91.060.50

Supersedes EN 16361:2013

English Version

**Power operated pedestrian doors - Product standard,
performance characteristics - Pedestrian doorsets, other
than swing type, initially designed for installation with
power operation**

Portes motorisées pour piétons - Norme de produit,
caractéristiques de performance - Blocs-portes pour
piétons, autres que de type battant, initialement conçus
pour une installation avec un système de motorisation

Kraftbetätigte Türen - Produktnorm,
Leistungseigenschaften - Türsysteme, mit Ausnahme
von Drehflügeltüren, vorgesehen für den
kraftbetätigten Betrieb

This European Standard was approved by CEN on 26 July 2013 and includes Amendment 1 approved by CEN on 4 April 2016.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
European foreword.....	4
1 Scope	5
2 Normative references	6
3 Terms and definitions	7
4 Requirements	7
4.1 General	7
4.2 Rate of release of dangerous substances (only for indoor impact)	8
4.3 Impact resistance (only for glazed doors with injury risks)	8
4.4 Height	8
4.5 Direct airborne sound insulation index (only for uses where acoustic performance is declared)	8
4.6 Impact forces (safety in use)	8
4.7 Water tightness (only for external doors)	9
4.8 Resistance to wind load (only for external doors)	9
4.9 Thermal transmittance (only for external doors and for internal doors where the thermal insulation is declared)	10
4.10 Air permeability (only for external doors and for internal doors where thermal insulation is declared)	10
4.11 A₁ Radiation properties A₁	12
4.12 Durability	12
4.12.1 General	12
4.12.2 Durability	13
4.13 Electromagnetic compatibility (EMC)	13
4.14 Other requirements	13
4.14.1 Glazing	13
4.14.2 Unframed glass doorsets	13
4.14.3 Doorsets in escape routes and emergency exits	13
4.14.4 Burglar resistance	14
5 Testing, assessment and sampling methods	14
5.1 General	14
5.2 Rate of release of dangerous substances (only for indoor impact)	14
5.3 Impact resistance (only for glazed doors with injury risks)	14
5.4 Height	14
5.5 Direct airborne sound insulation index (only for uses where acoustic performance is declared)	14
5.6 Impact forces (safety in use)	14
5.7 Water tightness (only for external doors)	14
5.8 Resistance to wind load (only for external doors)	14
5.9 Thermal transmittance (only for external doors and for internal doors where thermal insulation is declared)	14
5.10 Air permeability (only for external doors and for internal doors where thermal insulation is declared)	15
5.11 A₁ Radiation properties A₁	15
5.12 Durability	15
5.13 Electromagnetic compatibility (EMC)	15
5.13.1 Verification	15
5.13.2 Test for electromagnetic emissions	15

5.13.3	Tests for immunity to disturbances.....	15
6	Ⓐ Assessment and verification of constancy of performance – AVCP	15
6.1	General	15
6.2	Type testing	16
6.2.1	General	16
6.2.2	Test samples, testing and compliance criteria.....	16
6.2.3	Test reports	17
6.2.4	Shared other party results	17
6.2.5	Cascading determination of the product type results	18
6.3	Factory production control (FPC).....	19
6.3.1	General	19
6.3.2	Requirements.....	20
6.3.3	Product specific requirements	22
6.3.4	Initial inspection of factory and of FPC.....	23
6.3.5	Continuous surveillance of FPC for products covered by AVCP system 1	23
6.3.6	Procedure for modifications.....	24
6.3.7	One-off products, pre-production products (e.g. prototypes) and products produced in very low quantity Ⓐ	24
	Annex A (normative) Standards and draft standards on glass	25
	Annex B (informative) Summary of the characteristics	26
B.1	Summary of the characteristics of power operated pedestrian doorsets, other than swing type, initially designed for installation with power operation without resistance to fire and smoke leakage characteristics	26
	Annex C (informative) Handling, installation, maintenance and care	28
	Annex D (informative) Summary of classification of characteristics	29
	Annex E (informative) Ⓐ Example of air permeability calculation Ⓐ	34
	Annex ZA (informative) Ⓐ Relationship of this European Standard with Regulation (EU) No. 305/2011 Ⓐ	36
	Annex ZB (informative) Relationship between this European Standard and the Essential Requirements of the EMC Directive	42
	Bibliography	43

European foreword

This document (EN 16361:2013+A1:2016) 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 2017, and conflicting national standards shall be withdrawn at the latest by April 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document includes Amendment 1 approved by CEN on 4 April 2016.

This document supersedes EN 16361:2013.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** **A1**.

A1 This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 2014/30/EU and Regulation (EU) 305/2011.

For relationship with EU Directive 2014/30/EU and Regulation (EU) 305/2011, see informative Annexes ZA and ZB, which are an integral part of this document. **A1**

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

1 Scope

This European Standard specifies requirements and test/assessment/calculation methods for external and internal power operated pedestrian doorsets, other than swing type, initially designed for installation with power operation A1 *deleted text* A1.

Such doorset constructions may be operated electro-mechanically, electro-hydraulically or pneumatically.

These doorsets include power operated pedestrian sliding doorsets, revolving doorsets, balanced (sliding/swing) doorsets and folding doorsets with one or more horizontally moving leaves.

This European Standard applies to power operated pedestrian doorsets with flush or panelled leaves, complete with:

- integral fanlights, if any;

NOTE 1 A fanlight is a panel over a door which is part of the doorset.

- side panels that are contained within a single frame for inclusion in a single aperture, if any.

The intended uses of the products covered by this European Standard are:

- doorsets for external use in escape routes and other declared specific uses and/or uses subject to other specific requirements, in particular noise, energy, tightness and safety-in-use in construction works;
- doorsets for internal use in escape routes, communication and other declared specific uses and/or uses subject to other specific requirements, in particular noise and safety-in-use in construction works;
- doorsets for internal use in escape routes, communication and other declared specific uses and/or uses subject to other specific requirements, in particular noise, energy and safety-in-use in construction works.

The products covered by this European Standard are not assessed for structural applications of the building.

This European Standard does not cover operation in environments where the electromagnetic disturbances are outside the range of those specified in EN 61000-6-2.

This European Standard does not apply to:

- external pedestrian doorsets according to EN 14351-1;
- internal pedestrian doorsets according to prEN 14351-2;

A1

- fire resistance and/or smoke control characteristics according to EN 16034; A1

A1 *deleted text* A1

- lifts doorsets;
- vehicles doorsets;
- doorsets used in industrial processes;
- doorsets in partition walls;

- doorsets outside the reach of people (such as crane gantry fences);
- turnstiles;
- platform doorsets.

This European Standard does not cover special functions of doorsets (e.g. security, fire aspects in banks, airports, etc.).

This European Standard does not deal with any specific requirements on noise emitted from power operated doorsets, other than swing type, initially designed for installation with power operation A_1 deleted text A_1 as their noise emission is not considered to be a relevant hazard.

NOTE 2 Noise emission of power operated doorsets, other than swing type, initially designed for installation with power operation A_1 deleted text A_1 is not a significant hazard for the users of these products. It is a comfort aspect.

2 Normative references

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

EN 1026:2000, *Windows and doors — Air permeability — Test method*

EN 1027:2000, *Windows and doors — Watertightness — Test method*

A_1 EN 1279-5, *Glass in building — Insulating glass units — Part 5: Evaluation of conformity* A_1

EN 1627, *Pedestrian doorsets, windows, curtain walling, grilles and shutters — Burglar resistance — Requirements and classification*

EN 1863-2, *Glass in building — Heat strengthened soda lime silicate glass — Part 2: Evaluation of conformity/Product standard*

EN 12150-2, *Glass in building — Thermally toughened soda lime silicate safety glass — Part 2: Evaluation of conformity/Product standard*

EN 12207:1999, *Windows and doors — Air permeability — Classification*

EN 12208:1999, *Windows and doors — Watertightness — Classification*

EN 12210:1999, *Windows and doors — Resistance to wind load — Classification*

EN 12211:2000, *Windows and doors — Resistance to wind load — Test method*

EN 12519:2004, *Windows and pedestrian doors — Terminology*

EN 13049, *Windows - Soft and heavy body impact — Test method, safety requirements and classification*

EN 14179-2, *Glass in building — Heat soaked thermally toughened soda lime silicate safety glass — Part 2: Evaluation of conformity/Product standard*

EN 14321-2, *Glass in building — Thermally toughened alkaline earth silicate safety glass — Part 2: Evaluation of conformity/Product standard*

EN 14351-1:2006+A1:2010, *Windows and doors — Product standard, performance characteristics — Part 1: Windows and external pedestrian doorsets without resistance to fire and/or smoke leakage characteristics*

EN 16005:2012, *Power operated pedestrian doorsets — Safety in use — Requirements and test methods*

EN 61000-6-2, *Electromagnetic compatibility (EMC) — Part 6-2: Generic standards — Immunity for industrial environments (IEC 61000-6-2)*

EN 61000-6-3, *Electromagnetic compatibility (EMC) — Part 6-3: Generic standards — Emission standard for residential, commercial and light-industrial environments (IEC 61000-6-3)*

EN ISO 717-1, *Acoustics — Rating of sound insulation in buildings and of building elements — Part 1: Airborne sound insulation (ISO 717-1)*

EN ISO 10077-1:2006, *Thermal performance of windows, doors and shutters — Calculation of thermal transmittance — Part 1: General (ISO 10077-1:2006)*

EN ISO 10077-2, *Thermal performance of windows, doors and shutters — Calculation of thermal transmittance — Part 2: Numerical method for frames (ISO 10077-2)*

EN ISO 10140-2, *Acoustics — Laboratory measurement of sound insulation of building elements — Part 2: Measurements of airborne sound insulation (ISO 10140-2)*

EN ISO 12543-2, *Glass in building — Laminated glass and laminated safety glass — Part 2: Laminated safety glass (ISO 12543-2)*

EN ISO 12567-1, *Thermal performance of windows and doors — Determination of thermal transmittance by the hot-box method — Part 1: Complete windows and doors (ISO 12567-1)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 16005:2012, EN 12519:2004, EN 14351-1:2006+A1:2010 and the following apply.

3.1

night shield

additional element to close the entrance of a revolving doorset

4 Requirements

4.1 General

The performance characteristics for power operated pedestrian doorsets, other than swing type, initially designed for installation with power operation ~~A1~~ shall be determined and expressed in accordance with 4.2 to ~~A1~~ 4.12 ~~A1~~.

NOTE 1 The order in which the performance characteristics are identified does not imply an order of priority or a test sequence.

The performance characteristics of 4.2, 4.3, 4.5, 4.7 to 4.10 and the burglar resistance of ~~A1~~ 4.14.4 ~~A1~~ shall be determined with closed and locked doorsets for revolving doorsets with closed night shield or in the night position.

NOTE 2 Without night shield most of the following requirements are not applicable to revolving doors due to requirements of safety in use (e.g. safety distances).