

**Masinkasutusega ukсед. Kasutusohutus. Nõuded ja katsemeetodid**

**Power operated pedestrian doorsets - Safety in use - Requirements and test methods**

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 16005:2012 sisaldab Euroopa standardi EN 16005:2012 ingliskeelset teksti.	This Estonian standard EVS-EN 16005:2012 consists of the English text of the European standard EN 16005:2012.
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 10.10.2012.	Date of Availability of the European standard is 10.10.2012.
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English Version

## Power operated pedestrian doorsets - Safety in use - Requirements and test methods

Blocs-portes motorisés pour piétons - Sécurité d'utilisation -  
Exigences et méthodes d'essai

Kraftbetätigte Türen - Nutzungssicherheit - Anforderungen  
und Prüfverfahren

This European Standard was approved by CEN on 11 August 2012.

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## Foreword

This document (EN 16005:2012) 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of an identical text or by endorsement, at the latest by April 2013, and conflicting national standards shall be withdrawn at the latest by April 2013.

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 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(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

This document is a supporting standard of the relevant product standard(s) for power operated pedestrian doorsets with or without fire resistance or smoke control characteristics.

According to the CEN/CENELEC Internal Regulations, the national standards organisations 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.

## Introduction

This standard is a type C standard as stated in EN ISO 12100.

The machinery concerned and the extent to which hazards, hazardous situations and hazardous events are covered are indicated in the scope of this document.

When provisions of this type C standard are different from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards, for machines that have been designed and built according to the provisions of this type C standard.

## 1 Scope

### 1.1 General

This European Standard specifies requirements regarding design and test methods for external and internal power operated pedestrian doorsets. Such doorset constructions may be operated electro-mechanically, electro-hydraulically or pneumatically.

This European Standard covers safety in use of power operated pedestrian doorsets used for normal access as well as in escape routes and as fire resistance and/or smoke control doorsets.

The type of doorsets covered include power operated pedestrian sliding, swing and revolving doorsets, including balanced doorsets and folding doorsets with a horizontally moving leaf.

Power operated pass doorsets incorporated in other doorsets for which the main intended use is giving safe access for persons are covered by the scope of this European Standard.

This European Standard deals with all significant hazards, hazardous situations and events relevant to power operated doorsets when they are used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer (see Annex J).

### 1.2 Exclusions

This European Standard does not apply to:

- vertically moving doors;
- doors on lifts;
- doors on vehicles;
- power operated doors or gates mainly intended for vehicular traffic or access for goods;
- doors used in industrial processes;
- partition walls;
- doors outside the reach of people (such as crane gantry fences);
- traffic barriers;
- turnstiles;
- platform doors.

This European Standard does not cover special functions of doorsets, such as security in banks, airports, etc. or fire compartments, where conformity of the specific function with requirements of the application shall have the preference.

This European Standard does not cover operation in environments where the electromagnetic disturbances are outside the range of those specified in EN 61000-6-3.

This European Standard does not cover the radio part of operating devices of doorsets. If a radio-operating device is used, the relevant ETSI standards should be applied in addition.

This European Standard does not contain any specific requirement regarding noise emitted by a power operated doorset in relation to the Machinery Directive as it is not considered to be a significant hazard.

This European Standard is not applicable to power operated pedestrian doorsets in use before the date of publication of this document by CEN.

This European Standard does not cover operation in environments where there is a risk of explosion.

## 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 349 *Safety of machinery — Minimum gaps to avoid crushing of parts of the human body*

EN 1760-1, *Safety of machinery — Pressure sensitive protective devices — Part 1: General principles for the design and testing of pressure sensitive mats and pressure sensitive floors*

EN 1760-2, *Safety of machinery — Pressure sensitive protective devices — Part 2: General principles for the design and testing of pressure sensitive edges and pressure sensitive bars*

EN 12150-1, *Glass in building — Thermally toughened soda lime silicate safety glass — Part 1: Definition and description*

EN 12433-1:1999, *Industrial, commercial and garage doors and gates — Terminology — Part 1: Types of doors*

EN 12433-2:1999, *Industrial, commercial and garage doors and gates — Terminology — Part 2: Parts of doors*

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

EN 12978, *Industrial, commercial and garage doors and gates — Safety devices for power operated doors and gates — Requirements and test methods*

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 60335-2-103, *Household and similar electrical appliances — Safety — Part 2-103: Particular requirements for drives for gates, doors and windows*

EN 60529, *Degrees of protection provided by enclosures (IP Code)*

EN ISO 4413:2010, *Hydraulic fluid power — General rules and safety requirements for systems and their components (ISO 4413:2010)*

EN ISO 4414:2010, *Pneumatic fluid power — General rules and safety requirements for systems and their components (ISO 4414:2010)*

EN ISO 12100:2010, *Safety of machinery — General principles for design — Risk assessment and risk reduction (ISO 12100:2010)*

EN ISO 12543-1, *Glass in building — Laminated glass and laminated safety glass — Part 1: Definitions and description of component parts (ISO 12543-1)*

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

EN ISO 13849-1, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design (ISO 13849-1)*

EN ISO 13850, *Safety of machinery — Emergency stop — Principles for design (ISO 13850)*

EN ISO 17025, *General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025)*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100:2010, EN 12433-1:1999 (definitions from 2.1 to 3.11), EN 12433-2:1999, EN 12519:2004 and EN 14351-1:2006+A1:2010 and the following apply.

#### 3.1

##### **power operated pedestrian doorset**

doorset for pedestrian passage only with one or more leaves that is moved, at least in one direction, by an external energy supply (e.g. electrically) instead of manual or stored mechanical energy

Note 1 to entry: It includes drive, leaves, protective devices and any components needed for its safe operation.

#### 3.2

##### **revolving doorset**

power operated pedestrian doorset with one or more leaves connected to a common vertical axis of rotation within an enclosure

Note 1 to entry: There is a wide range of design variations in this product group. See Figure 1 for examples.

Note 2 to entry: Figure 1 refers to any rotation. The shown anticlockwise rotation is only the more common one.

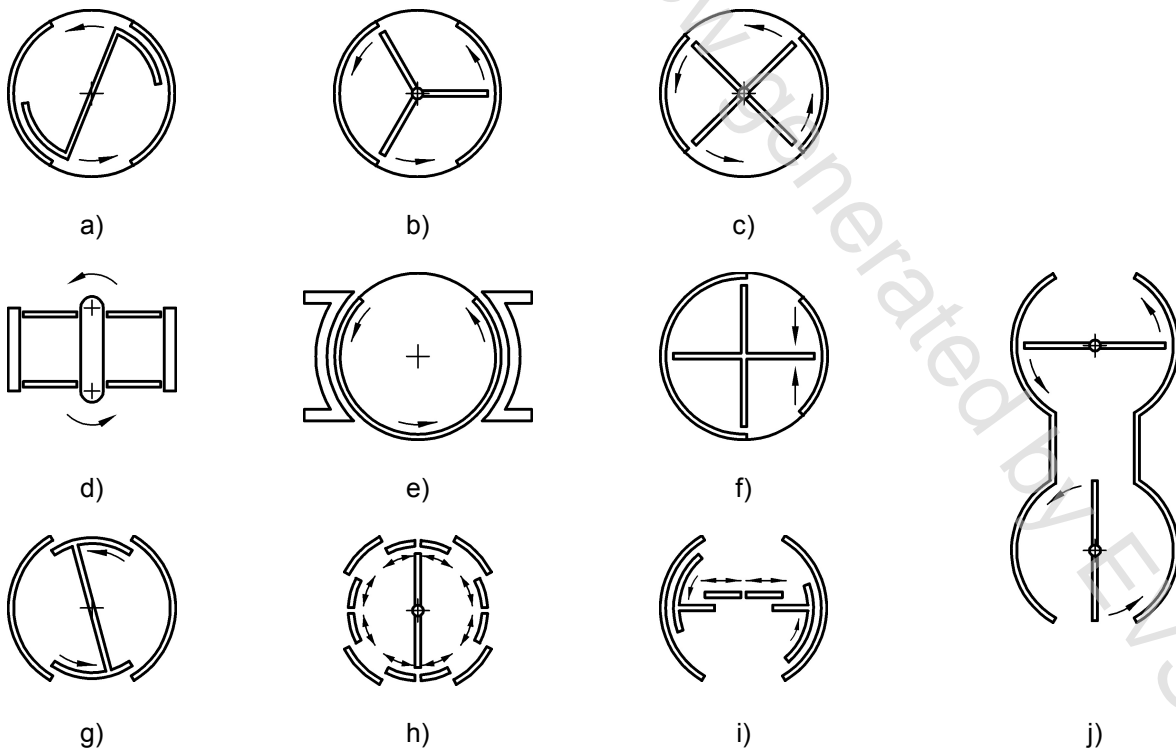


Figure 1 — Revolving doorsets