



BSI Standards Publication

**Industrial, commercial and garage doors
and gates — Safety in use of power operated
doors — Requirements and test methods**

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National foreword

This British Standard is the UK implementation of EN 12453:2017+A1:2021. Together with BS EN 12604:2017+A1:2020, it supersedes BS EN 12635:2002+A1:2008, which is withdrawn. It supersedes BS EN 12453:2017, which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to CEN text carry the number of the CEN amendment. For example, text altered by CEN amendment A1 is indicated by A1 A1.

The UK participation in its preparation was entrusted to Technical Committee B/538/5, Industrial and commercial garage doors and gates.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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© The British Standards Institution 2023
Published by BSI Standards Limited 2023

ISBN 978 0 539 26910 9

ICS 91.060.50; 91.090

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 July 2018.

Amendments/corrigenda issued since publication

Date	Text affected
31 May 2022	Implementation of CEN amendment 1:2021
30 April 2023	Correction to supersession

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EUROPÄISCHE NORM

December 2021

ICS 91.060.50

Supersedes EN 12453:2017

English Version

Industrial, commercial and garage doors and gates - Safety in use of power operated doors - Requirements and test methods

Portes et portails équipant les locaux industriels et
commerciaux et les garages - Sécurité à l'utilisation des
portes motorisées - Exigences et méthodes d'essai

Tore - Nutzungssicherheit kraftbetätigter Tore -
Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 12 June 2017 and includes Amendment 1 approved by CEN on 16 December 2021.

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.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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Contents		Page
European foreword.....		5
Introduction		7
1	Scope	8
2	Normative references	9
3	Terms and definitions	10
4	List of significant hazards	12
4.1	General.....	12
4.2	Hazards caused by crushing, shearing and drawing-in.....	13
4.2.1	General.....	13
4.2.2	A1 Hazards caused when persons can travel with the door A1	13
4.2.3	Hazards caused by impact.....	13
4.3	Hazards caused by source of energy and power controls	13
4.4	Manual operation.....	14
4.5	Other hazards.....	14
4.5.1	General.....	14
4.5.2	Hazards caused by pass doors.....	14
4.5.3	Hazards caused by imprisonment.....	14
4.5.4	Hazards caused by trapping.....	14
4.5.5	Hazards caused by falling or ejected parts or uncontrolled movement	14
4.5.6	Hazards caused by the locking devices	14
4.5.7	Hazards caused due to a loss of stability	14
4.5.8	Hazards caused by glazing material	15
4.5.9	Hazards caused by modification of settings	15
5	Safety requirements and/or protective measures	15
5.1	General.....	15
5.1.1	General requirements	15
5.1.2	Safety Function performed by control system.....	15
5.1.3	Minimum level of safeguarding at the main closing edge	16
5.2	Crushing, shearing and drawing-in	17
5.2.1	General.....	17
5.2.2	Safeguarding against hazards caused when persons can travel with the door	21
5.2.3	Safeguarding against impact hazard.....	21
5.3	Source of energy and power controls	22
5.3.1	General.....	22
5.3.2	Electrical drive units.....	22
5.3.3	Hydraulic drive units	25
5.3.4	Pneumatic drive units	25
5.3.5	Restart after unintended interruption.....	26
5.3.6	Supply disconnection.....	26
5.4	Manual operation.....	26
5.4.1	General.....	26
5.4.2	Manual operation by direct movement of the door leaf	26
5.4.3	Manual operation directly applied to the drive unit.....	26
5.4.4	Balancing failure at manual operation.....	26
5.4.5	Human physical strength for manual operation of the door leaf	27

This is a preview of "BS EN 12453:2017+A1:...". Click here to purchase the full version from the ANSI store.

5.5	Other hazards	27
5.5.1	Pass doors	27
5.5.2	Imprisonment	27
5.5.3	Trapping	27
5.5.4	Falling or ejected parts or uncontrolled movement	27
5.5.5	Locking devices	28
5.5.6	Loss of stability	28
5.5.7	Glazing material	29
5.5.8	Modification of setting	29
6	Verification of the safety requirements and/or protective measures	29
6.1	General	29
6.2	Crushing, shearing and drawing-in points	29
6.2.1	General	29
6.2.2	Ⓐ Hazards caused when persons can travel with the door Ⓐ	31
6.2.3	Impact hazard	31
6.3	Source of energy	31
6.3.1	Electrical drive units	31
6.3.2	Hydraulic drive units	32
6.3.3	Pneumatic drive units	32
6.3.4	Restart after unintended interruption	32
6.3.5	Supply disconnection	32
6.4	Manual operation	32
6.4.1	Manual operation by direct movement of the door leaf	32
6.4.2	Manual operation directly applied to the drive unit	32
6.4.3	Balancing failure at manual operation	32
6.4.4	Human physical strength for manual operation of the door leaf	33
6.5	Other hazards	33
6.5.1	Pass doors	33
6.5.2	Imprisonment	33
6.5.3	Trapping	33
6.5.4	Falling or ejected parts or uncontrolled movement	33
6.5.5	Locking devices	34
6.5.6	Loss of stability	34
6.5.7	Glazing material	34
6.5.8	Modification of settings	34
7	Information for use	34
7.1	General	34
7.2	Marking	37
	Annex A (normative) Limitation of forces	38
A.1	Specifications	38
A.2	Admissible forces	38
	Annex B (informative) Examples of mechanical protection and safety distances	40
B.1	Examples of mechanical protection	40
B.2	Examples of appropriate safety clearances and safety distances	41
	Annex C (normative) Force measuring method	43
C.1	General	43
C.2	Measuring equipment	43

This is a preview of "BS EN 12453:2017+A1:...". [Click here to purchase the full version from the ANSI store.](#)

C.3	Points of measuring.....	43
	Annex D (normative) Testing method for presence detection	53
D.1	General.....	53
D.2	Test pieces	53
D.3	Testing of supplementary device to be used with force limitation.....	54
D.4	Testing of presence detection system to be used without force limitation	57
	Annex E (informative) Safeguarding against dropping by other design features incorporated in the suspension system of vertically moving power operated door leaves	61
	Annex F (informative) Relationship between Hazards, Requirements and Test clauses	62
	Annex G (informative) Logbook.....	64
	Annex ZA (informative) Relationship between this European standard and the Essential Requirements of Directive 2006/42/EC aimed to be covered	65
	Bibliography.....	68

This is a preview of "BS EN 12453:2017+A1:...". [Click here to purchase the full version from the ANSI store.](#)

European foreword

This document (EN 12453:2017+A1:2021) 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 June 2022, and conflicting national standards shall be withdrawn at the latest by June 2022.

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

This document will supersede A1 EN 12453:2017 A1.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

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

This document includes Amendment 1 approved by CEN on 4 January 2021.

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

Compared with EN 12453:2000 and EN 12445:2000, the following changes have been made:

- a) EN 12453 has been revised to be harmonized under Machinery Directive 2006/42/EC;
- b) EN 12453 has been merged with EN 12445; as EN 12445:2000 will be withdrawn;
- c) aligning structure of EN 12453 according to MD templates;
- d) revision of the list of significant hazards (Clause 4);
- e) revision of safety and/or protective measures (Clause 5);
- f) revision of the verification of the safety requirements (Clause 6);
- g) editorial revision of Annex A (limitation of forces);
- h) introducing Annex B (Examples of mechanical protection and safety distances);
- i) introducing Annex C (Force measuring method);
- j) introducing Annex D (Testing method for presence detection);
- k) introducing Annex E (Safeguarding against dropping by other design features incorporated in the suspension system of vertically moving power operated door leaves);
- l) introducing Annex ZA for harmonization of EN 12453 under MD.

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Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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Introduction

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

This document is of relevance, in particular, for the following stakeholder groups representing the market players with regard to machinery safety:

- machine manufacturers (small, medium and large enterprises);
- health and safety bodies (regulators, accident prevention organizations, market surveillance etc.)

Others can be affected by the level of machinery safety achieved with the means of the document by the above-mentioned stakeholder groups:

- machine users/employers (small, medium and large enterprises);
- machine users/employees (e.g. trade unions, organizations for people with special needs);
- service providers, e.g. for maintenance (small, medium and large enterprises);
- consumers (in case of machinery intended for use by consumers).

The above-mentioned stakeholder groups have been given the possibility to participate at the drafting process of this document.

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

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

This document has been prepared to meet the needs of manufacturers, users and safety enforcement authorities, with the primary purpose of providing design and performance for safety in use of power operated industrial, commercial and garage doors and gates used by vehicular traffic.

Mechanical aspects of the doors are covered by normative references to [EN 12604:2017+A1:2020](#).

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1 Scope

A1 This document specifies requirements and test methods for the safety in use of power operated industrial, commercial and garage doors, gates and barriers intended for installation in areas in the reach of persons, and for which the main intended use is giving safe access for goods and vehicles accompanied or driven by persons in industrial, commercial or residential premises. **A1**

This European Standard also covers power operated vertically moving commercial doors such as rolling shutters and rolling grilles, used in retail premises which are mainly provided for goods protection.

This European Standard deals with all significant hazards, hazardous situations and events relevant to the power operation of industrial, commercial and garage doors, and gates when they are used as intended and under conditions of misuse which are reasonably foreseeable as identified in Clause 4.

All lifetime phases of the machinery including transportation, assembly, dismantling, disabling and scrapping are considered by this standard.

This European Standard does not apply to:

- lock gates and dock gates;
- doors on lifts;
- doors on vehicles;
- armoured doors;
- doors mainly for the retention of animals, unless they are at the site perimeter;
- theatre textile curtains;
- horizontally moving power operated doors mainly intended for pedestrian use;
- doors outside the reach of people (such as crane gantry fences);
- railway barriers;
- barriers intended solely for use by pedestrians;
- barriers used solely for vehicles on motorways.

Whenever the term “door” is used in this document, it shall be deemed to cover the full scope of types and variances of doors, gates and barriers in the scope of this Standard.

This European Standard does not deal with any specific requirements on noise emitted from power operated door, gate and barrier, intended for installation in areas in the reach of persons, and for which the main intended use is giving safe access for goods and vehicles accompanied or driven by persons in industrial, commercial or residential premises as their noise emission is not considered to be a relevant hazard.

NOTE Noise emission of power-operated doors is not a significant hazard for the users of these products. It is a comfort aspect.

This European Standard is not applicable to machinery which are manufactured before the date of publication of the standard.