

SINGAPORE STANDARD

Portable fire extinguishers

– Part 9 : Additional requirements to SS EN 3-7 for
pressure resistance of CO₂ extinguishers

(This national standard is the identical implementation of EN 3-9 : 2006 and is adopted with permission of CEN, Avenue Marnix 17, 1000 Brussels)



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– Part 9 : Additional requirements to SS EN 3-7 for pressure resistance of CO2 extinguishers

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Fire Safety Managers' Association (Singapore)
Institution of Engineers, Singapore
Lingjack Engineering Works Pte Ltd
National Environment Agency
Singapore Civil Defence Force
Singapore Manufacturers' Federation
The Institution of Fire Engineers (Singapore Branch)
TÜV SÜD PSB Pte Ltd

National Foreword

This Singapore Standard was prepared by a Working Group appointed by the Technical Committee on Building Maintenance and Management which is under the purview of the Building and Construction Standards Committee.

The review of the SS 232 series of standards on portable fire extinguishers resulted in the development of the SS EN 3 series of standards which comprises the following parts under the general title 'Portable fire extinguishers':

- Part 7 : Characteristics, performance requirements and test methods
- Part 8 : Additional requirements to SS EN 3-7 for the construction, resistance to pressure and mechanical tests for extinguishers with a maximum allowable pressure equal to or lower than 30 bar
- Part 9 : Additional requirements to SS EN 3-7 for pressure resistance of CO₂ extinguishers
- Part 10 : Provisions for evaluating the conformity of a portable fire extinguisher to SS EN 3-7

The four parts replace the SS 232 series of standards.

This SS EN is the identical implementation of EN 3-9 : 2006 'Portable fire extinguishers - Part 9 : Additional requirements to EN 3-7 for pressure resistance of CO₂ extinguishers' (incorporating the CEN Corrigendum EN 3-9:2006/AC : 2007) and is adopted with permission of CEN, Avenue Marnix 17, 1000 Brussels.

Annex ZA of EN 3-9 is not applicable in the local context.

Attention is drawn to the following:

- In EN Standards, the comma has been used throughout as a decimal marker whereas in Singapore Standards, it is a practice to use a full point on the baseline as the decimal marker.
- Where applicable, the words 'European Standard' should be read as 'Singapore Standard'.

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

NOTE

1. *Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions.*
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English Version

Portable fire extinguishers - Part 9: Additional requirements to EN 3-7 for pressure resistance of CO₂ extinguishers

Extincteurs d'incendie portatifs - Partie 9 : Exigences
additionnelles à l'EN 3-7 relatives à la résistance à la
pression des extincteurs au dioxyde de carbone

Tragbare Feuerlöscher - Teil 9: Zusätzliche Anforderungen
zu EN 3-7 an die Druckfestigkeit von Kohlendioxid-
Feuerlöscher

This European Standard was approved by CEN on 25 October 2006.

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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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Foreword

This document (EN 3-9:2006) has been prepared by Technical Committee CEN/TC 70 "Manual means of fire fighting equipment", 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 2007, and conflicting national standards shall be withdrawn at the latest by June 2007.

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 97/23/CE.

For relationship with EU Directive 97/23/CE, see informative Annex ZA, which is an integral part of this document.

This document is included in a series of European Standards planned to cover:

- a) classification of fires (EN 2)
- b) mobile fire extinguishers (EN 1866)

EN 3 consists of the following parts, under the general title "*Portable fire extinguishers*"

- *Part 1¹⁾: Description, duration of operation, class A and B fire test*
- *Part 2¹⁾: Tightness, dielectric test, tamping test, special provisions*
- *Part 3: Construction, resistance to pressure, mechanical tests*
- *Part 4¹⁾: Charges, minimum required fire*
- *Part 5¹⁾: Specification and supplementary tests*
- *Part 6: Provisions for the attestation of conformity of portable fire extinguishers in accordance with EN 3 part 1 to part 5*
- *Part 7: Characteristics, performance requirements and test methods*
- *Part 8: Additional requirements to EN 3-7 for the construction, resistance to pressure and mechanical tests for extinguishers with a maximum allowable pressure equal to or lower than 30 bar*
- *Part 9: Additional requirements to EN 3-7 for pressure resistance of CO₂ extinguishers*
- *Part 10²⁾: Provisions for evaluating of conformity of a portable fire extinguisher to EN 3 part 7*

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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

¹⁾ Withdrawn and replaced by EN 3-7.

²⁾ In preparation. EN 3-10 updates and amends EN 3-6. On publication of EN 3-10 EN 3-6 will be withdrawn.

1 Scope

This European Standard specifies the rules of design, assembling, inspection and testing of CO₂ portable fire extinguishers as far as the pressure risk is concerned.

NOTE Annex A gives the classification of the different parts forming the assembly of the portable extinguisher.

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 3-7:2004, *Portable fire extinguishers — Part 7: Characteristics, performance requirements and test methods*

EN 3-8:2006, *Portable fire extinguishers — Part 8: Additional requirements to EN 3-7 for the construction, resistance to pressure and mechanical tests for extinguishers with a maximum allowable pressure equal to or lower than 30 bar*

EN 629-1:1996, *Transportable gas cylinders — 25E taper thread for connection of valves to gas cylinders — Part 1: Specification*

EN ISO 11116-1:1999, *Gas cylinders — 17E taper thread for connection of valves to gas cylinders — Part 1: Specifications (ISO 11116-1:1999)*

EN ISO 15245-1:2001, *Gas cylinders — Parallel threads for connection of valves to gas cylinders — Part 1: Specification (ISO 15245-1:2001)*

ISO 6718:1991, *Bursting discs and bursting disc devices*