BRITISH STANDARD

BS EN
50069:1991
+A1:1993
Incorporating corrigendum August 2007

Specification for

Welded composite enclosures of cast and wrought aluminium alloys for gas-filled high-voltage switchgear and controlgear

ICS 29.130.10

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

BSI Documents Document Sharing Hub British Standards

Full document details: BS EN 50069:1991+A1:1993

National foreword

This British Standard is the UK implementation of EN 50069:1991+A1:1993, incorporating corrigendum August 2007. It supersedes BS EN 50069:1991, which is withdrawn.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 CENELEC text carry the number of the CENELEC amendment. For example, text altered by CENELEC amendment A1 is indicated by ⟦A1⟩ ⟨A1⟧.

The start and finish of text introduced or altered by corrigendum is indicated in the text by tags. Text altered by CENELEC corrigendum August 2007 is indicated in the text by ⟦AC1⟩ ⟨AC1⟧.

National appendix NA gives details of International Standards quoted in this standard for which there is an identical or technically equivalent British Standard.

The UK participation in its preparation was entrusted to Technical Committee PEL/17/1, High-voltage switchgear and controlgear.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Board and comes into effect on 28 June 1991

© BSI 2008

ISBN 978 0 580 60720 2

Amendments/corrigenda issued since publication

Amd. No.	Date	Comments
8055	December 1993	Implementation of CENELEC amendment A1:1993
	30 September 2008	Implementation of CENELEC corrigendum August 2007. Implementation of National corrigendum — Italian and French A-deviations re-instated in Annex A

Documents
Document Sharing Hub

Full document details: BS EN 50069:1991+A1:1993

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50069:1991+A1

August 1993

UDC 621.316.37-213.6-034.715

Incorporating corrigendum August 2007

Descriptors: Enclosure, high-voltage switching device, H.V. metal-enclosed switchgear and controlgear, pressurized enclosure, welded cast and wrought aluminium alloy parts

English version

Welded composite enclosures of cast and wrought aluminium alloys for gas-filled high-voltage switchgear and controlgear

Enveloppes soudées en alliage d'aluminium comportant des parties moulées et des parties en métal corroyé pour l'appareillage à haute tension sous pression de gaz

Geschweißte Kapselungen von Teil aus Leichtmetallguß und Aluminium-Knetlegierungen für gasgefüllte Hochspannungs-Schaltgeräte und- Schaltanlagen

This European Standard was approved by CENELEC on 5 March 1990. CENELEC 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 CENELEC 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 CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B-1050 Brussels

© 1993 Copyright reserved to CENELEC members

Ref. No. EN 50069:1991 E

AVA Documents Document Sharing Hub

Full document details: BS EN 50069:1991+A1:1993

Foreword

At the request of CENELEC technical committee TC 17C, the text of the draft EN 50069 prepared by TC 17C was submitted to the Unique Acceptance Procedure(UAP).

The text of the draft was approved by all CENELEC members with the exception of Austria and Sweden as EN 50069 on 5 March 1990.

The following dates were fixed:

— latest date of publication of an identical national standard (dop) 1991-06-01

— latest date of withdrawal of conflicting national standards (dow) 1991-06-01

For products which have complied with the relevant national standard before 1991-06-01, as shown by the manufacture or by a certification body, this previous standard may continue to apply for production until 1996-06-01.

This document forms a supplement to EN 50052:1986: *"Cast aluminium alloy enclosures for gas-filled high-voltage switchgear and controlgear"* and EN 50064:1989: *"Wrought aluminium and aluminium alloy enclosures for gas-filled high-voltage switchgear and controlgear"*, concerning welded enclosures for the same type of switchgear and controlgear but composed of parts made of cast and wrought aluminium alloys. It is based on the general specifications given in HD 358 S2 (IEC 517:1986 ed 2) which are however not sufficient to satisfy the conditions for the service allowance of pressurized high-voltage switchgear and controlgear.

These specifications are appropriate for pressurized switchgear enclosures allowing an economic production without sacrificing aspects of safety. For unusual shapes dictated by electrical conditions they permit the verification of sound design by proof tests instead of calculations. Nevertheless this European Standard makes use of many internationally well acknowledged calculation rules and the Technical Committee will in addition pursue the progress in standardization in CEN/TC 121 and ISO/TC 44 on welding and allied processes.

For the time being reference can only be made to published International Standards as far as they are appropriate for the purpose of production of enclosures to be used in gas-filled switchgear and controlgear.

The present EN has been established as an international specification for the design, construction, testing, inspection and certification of pressurized enclosures used in high-voltage switchgear and controlgear. This standard follows to that extent also Article 2 of the Directive 76/767/EEC.

The European Standard contains one informative annex: "National Deviations".

List of standards referred to in this standard:

HD 358 S2 (IEC 517:1986 ed 2)	*Gas-insulated metal-enclosed switchgear for rated voltages of 72,5 kV and above*
ISO 6213:1983	*Welding; Items to be considered to ensure quality in welding structures*
ISO 9000:1987	*Guidelines for selection and use of the standards on quality management, quality system elements and quality assurance*
ISO/IEC Guide 2:1986	*General terms and their definitions concerning standardization and related activities*
ISO 6520:1982	*Classification of imperfections in metallic fusion welds, with explanations*
ISO 3134:1985	*Light metals and their alloys; Terms and definitions*

Foreword to amendment A1

This amendment was prepared by CENELEC Technical Committee TC17C, High-voltage enclosed switchgear and controlgear.

The text of the draft was submitted to the voting procedure in March 1993 and was approved by CENELEC as amendment A1 to EN 50069:1991 on July 6, 1993.

The following dates were accepted:

— latest date of publication of an identical national standard (dop) 1994-10-01

— latest date of withdrawal of conflicting national standards (dow) 1993-10-01

Documents
Document Sharing Hub
© BSI 2008
Full document details: BS EN 50069:1991+A1:1993

Contents

		Page
Foreword		2
1	Introduction	5
2	Scope and field of application	5
3	Definitions	5
4	Materials	7
5	Design	7
6	Manufacture and workmanship	9
7	Inspection and testing	9
8	Pressure relief devices	12
9	Certification and marking	12
Annex A (informative) National deviations		14
Table 1 — List of recommended cast aluminium alloys		8
Table 2 — Examples of materials		9

© BSI 2008

Documents
Document Sharing Hub
Full document details: BS EN 50069:1991+A1:1993

blank

Documents
Document Sharing Hub

Full document details: BS EN 50069:1991+A1:1993