



BSI Standards Publication

High-voltage switchgear and controlgear - Gas-filled welded composite enclosures of cast and wrought aluminium alloys

National foreword

This British Standard is the UK implementation of EN 50069:2018. It supersedes BS EN 50069:1991+A1:1993, which is withdrawn.

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

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.

© The British Standards Institution 2018

Published by BSI Standards Limited 2018

ISBN 978 0 580 99483 8

ICS 29.130.10

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

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 November 2018.

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

English Version

High-voltage switchgear and controlgear - Gas-filled welded composite enclosures of cast and wrought aluminium alloys

Appareillage électrique haute tension - Enveloppes soudées en alliage d'aluminium comportant des parties moulées et des parties en métal corroyé sous pression de gaz

Hochspannungs-Schaltgeräte und Schaltanlagen - Geschweißte, gasgefüllte Kapselungen von Teilen aus Aluminium-Guss und Aluminium-Knetlegierungen

This European Standard was approved by CENELEC on 2018-09-03. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents

Page

European foreword	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Quality assurance	9
5 Normal and special service conditions	9
6 Materials	9
6.1 Selection of material	9
6.2 Chemical analysis	11
7 Design	12
7.1 General	12
7.2 Calculation methods	12
7.3 Inspection and access openings	12
8 Manufacture and workmanship	12
9 Repair of welding defects	12
10 Inspection, testing and certification	12
10.1 Type tests	12
10.2 Inspection and routine tests	12
10.3 Welding procedure specifications	13
10.4 Welder performance tests	13
10.5 Non-destructive testing	13
10.6 Design specification, drawings and data sheets	13
10.7 Certificate	13
10.8 Stamping	13
10.9 Final inspection	13
11 Pressure relief devices	13
Annex A (informative) A-deviation	14
Bibliography	15

European foreword

This document (EN 50069:2018) has been prepared by CLC/TC 17AC, "*High-voltage switchgear and controlgear*".

The following dates are fixed:

- latest date by which this document has (dop) 2019-09-03
to be implemented at national level by
publication of an identical national
standard or by endorsement
- latest date by which the national (dow) 2021-09-03
standards conflicting with this document
have to be withdrawn

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

This document supersedes EN 50069:1991 and EN 50069:1991/A1:1993.

This document has been revised by CENELEC Technical Committee 17AC, "High-voltage switchgear and controlgear". It supplements the relevant product standards on gas-insulated switchgear and controlgear in that it provides specific requirements for pressurized high-voltage switchgear and controlgear.

The present EN has been written to get a European specification for the design, construction, testing, inspection and certification of pressurized enclosures used in high-voltage switchgear and controlgear.

In this respect, this document constitutes the exclusion of HV switchgear from the scope of the Directive 2014/68/EU (superseding 97/23/EC) concerning pressure equipment. Article 1, 2. (l) excludes "enclosures for high-voltage electrical equipment such as switchgear, controlgear, transformers, and rotating machines" from the scope of the Directive.

This standard deals with gas-filled welded composite enclosures of cast and wrought aluminium alloys. For different enclosure materials, other European Standards are available.