

BS EN 60143-3:2015



BSI Standards Publication

Series capacitors for power systems

Part 3: Internal fuses

bsi.

...making excellence a habit.
AVA Documents™
Document Sharing Hub

National foreword

This British Standard is the UK implementation of EN 60143-3:2015. It is identical to IEC 60143-3:2015. It supersedes BS EN 60143-3:1998 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PEL/33, Power capacitors.

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 2015.

Published by BSI Standards Limited 2015

ISBN 978 0 580 86529 9

ICS 29.120.50; 31.060.70

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 31 October 2015.

Amendments/corrigenda issued since publication

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

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60143-3

September 2015

ICS 31.060.70

Supersedes EN 60143-3:1998

English Version

Series capacitors for power systems - Part 3: Internal fuses (IEC 60143-3:2015)

Condensateurs série destinés à être installés sur des
réseaux - Partie 3: Fusibles internes
(IEC 60143-3:2015)

Reihenkondensatoren für Starkstromanlagen - Teil 3:
Eingebaute Sicherungen
(IEC 60143-3:2015)

This European Standard was approved by CENELEC on 2015-07-14. 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, 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: Avenue Marnix 17, B-1000 Brussels

© 2015 CENELEC All rights of exploitation in any form and by any means reserved worldwide for CENELEC Members.

European foreword

The text of document 33/577/FDIS, future edition 2 of IEC 60143-3, prepared by IEC/TC 33 "Power capacitors and their applications" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60143-3:2015.

The following dates are fixed:

- latest date by which the document has to be (dop) 2016-04-14
implemented at national level by
publication of an identical national
standard or by endorsement
- latest date by which the national (dow) 2018-07-14
standards conflicting with the
document have to be withdrawn

This document supersedes EN 60143-3:1998.

EN 60143-3:2015 includes the following significant technical changes with respect to EN 60143-3:1998:

The test procedure has been largely simplified

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

Endorsement notice

The text of the International Standard IEC 60143-3:2015 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60549:2013	NOTE	Harmonized as EN 60549:2013.
IEC 60871-4:2014	NOTE	Harmonized as EN 60871-4:2014.
IEC 60931-3:1996	NOTE	Harmonized as EN 60931-3:1996.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60143-1	2004	Series capacitors for power systems -- Part 1: General	EN 60143-1	2004
IEC 60143-2	2012	Series capacitors for power systems -- Part 2: Protective equipment for series capacitor banks	EN 60143-2	2013

CONTENTS

FOREWORD.....	3
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions	5
4 Performance requirements	5
4.1 General.....	5
4.2 Disconnecting requirements	6
4.3 Withstand requirements.....	6
5 Tests.....	7
5.1 Routine tests.....	7
5.1.1 General	7
5.1.2 Discharge test.....	7
5.2 Type tests	7
5.2.1 General	7
5.2.2 Discharge test on fuses	7
5.2.3 Disconnecting test on fuses.....	8
5.2.4 Voltage test after opening the container.....	8
Annex A (normative) Test procedures for the disconnecting test on internal fuses	9
A.1 General.....	9
A.2 Test procedure – Mechanical puncture of the element.....	9
Annex B (informative) Guide for coordination of fuse protection	10
B.1 General.....	10
B.2 Protection sequence.....	10
Bibliography	11