BS EN 60871-4:2014

BSI Standards Publication

Shunt capacitors for AC power systems having a rated voltage above 1 000 V

Part 4: Internal fuses

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National foreword

This British Standard is the UK implementation of EN 60871-4:2014. It is identical to IEC 60871-4:2014. It supersedes BS EN 60871-4:1997 which is withdrawn.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.

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

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English Version

Shunt capacitors for AC power systems having a rated voltage above 1 000 V - Part 4: Internal fuses (IEC 60871-4:2014)

Condensateurs shunt pour réseaux à courant alternatif de tension assignée supérieure à 1 000 V - Partie 4: Fusibles internes
(CEI 60871-4:2014)

Parallelkondensatoren für Wechselspannungs-Starkstromanlagen mit einer Bemessungsspannung über 1 000 V - Teil 4: Eingebaute Sicherungen
(IEC 60871-4:2014)

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

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Foreword

The text of document 33/548/FDIS, future edition 2 of IEC 60871-4, prepared by IEC/TC 33, "Power capacitors and their applications" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60871-4:2014.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2015-02-01
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2017-05-01

This document supersedes EN 60871-4:1996.

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Endorsement notice

The text of the International Standard IEC 60871-4:2014 was approved by CENELEC as a European Standard without any modification.

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.

Publication	Year	Title	EN/HD	Year
IEC 60871-1	2005	Shunt capacitors for a.c. power systems having a rated voltage above 1 000 V -- Part 1: General	EN 60871-1	2005

CONTENTS

SHUNT CAPACITORS FOR AC POWER SYSTEMS HAVING A RATED VOLTAGE ABOVE 1 000 V –

Part 4: Internal fuses

1 Scope and object

This part of IEC 60871 applies to internal fuses which are designed to isolate faulty capacitor elements, in order to allow operation of the remaining parts of that capacitor unit and the bank in which the capacitor unit is connected. Such fuses are not a substitute for a switching device such as a circuit-breaker, or for external protection of the capacitor bank or any part thereof.

The object of this part of IEC 60871 is to formulate requirements regarding performance and testing and to provide a guide for coordination of fuse protection.

2 Normative references

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.

IEC 60871-1:2005, *Shunt capacitors for a.c. power systems having a rated voltage above 1000 V – Part 1: General*

3 Terms and definitions

For the purpose of this part of IEC 60871, the terms and definitions in IEC 60871-1, as well as the following, apply.

3.1
rated voltage of a capacitor element
U_{Ne}
r.m.s. value of the alternating voltage for which the capacitor element has been designed

4 Performance requirements

4.1 General

The fuse is connected in series to the element(s) which the fuse is intended to isolate if the element(s) becomes faulty. The range of currents and voltages for the fuse is therefore dependent on the capacitor design, and in some cases also on the bank in which the fuse is connected.

The requirements are valid for a bank or a capacitor switched by restrike-free circuit-breakers. If the circuit-breakers are not restrike-free, other requirements shall be agreed between manufacturer and purchaser.

The operation of an internal fuse is in general determined by one or both of the two following factors: