PD IEC/TS 60871-2:2014

BSI Standards Publication

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

Part 2: Endurance testing

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National foreword

This Published Document is the UK implementation of IEC/TS 60871-2:2014. It supersedes BS 7264-2:1990 which is withdrawn.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.

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Published by BSI Standards Limited 2014

ISBN 978 0 580 79034 8

ICS 29.240.99; 31.060.70

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This Published Document was published under the authority of the Standards Policy and Strategy Committee on 31 December 2014.

Amendments/corrigenda issued since publication

Date	Text affected

IEC TS 60871-2

Edition 3.0 2014-11

SPECIFICATION TECHNIQUE

Shunt capacitors for a.c. power systems having rated voltage above 1 000 V – Part 2: Endurance testing

Condensateurs shunt pour réseaux à courant alternatif de tension assignée supérieure à 1 000 V – Partie 2: Essais d'endurance

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE
CODE PRIX K

ICS 29.249.99; 31.060.70

ISBN 978-2-8322-1937-9

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 2: Endurance testing

FOREWORD

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Technical specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC/TS 60871-2, which is a technical specification, has been prepared by IEC technical committee 33: Power capacitors and their applications.

This third edition cancels and replaces the second edition published in 1999. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) The overvoltage cycling test has been moved to IEC 60871-1:2014.

The text of this technical specification is based on the following documents:

Enquiry draft	Report on voting
33/536/DTS	33/565/RVC

Full information on the voting for the approval of this technical specification can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 60871 series, published under the general title *Shunt capacitors for a.c. power systems having a rated voltage above 1 000 V*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- transformed into an International standard,
- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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

Part 2: Endurance testing

1 Scope

This part of IEC 60871, which is a technical specification, applies to capacitors according to IEC 60871-1 and gives the requirements for ageing tests of these capacitors.

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 60871-1:2014, *Shunt capacitors for a.c. power systems having a rated voltage above 1 000 V – Part 1: General*

IEC TR 60996, *Method for verifying accuracy of tan delta measurements applicable to capacitors*

3 Terms and definitions

For the purpose of this technical specification, the following terms and definitions apply in addition to those given in IEC 60871-1:

3.1
test unit
one of the units to be manufactured or a special unit which, with respect to the properties to be checked by the ageing test, is equivalent to the units to be manufactured

Note 1 to entry: The restrictions on test unit design are detailed in Annex A.

3.2
comparable element design
range of construction elements that will be comparable in performance, under the test procedure, with elements of the units to be manufactured

Note 1 to entry: See Annex A for detailed design limits.

3.3
inter-element insulation
insulation between two series-connected elements, consisting of:

– the outer turns of the insulation layers around the electrodes in an element, or
– a separate insulation layer placed between the two elements

Note 1 to entry: This separate insulation layer may protrude outside the width and (or) length dimension(s) of the flattened element (see Annex B).