SLOVENSKI STANDARD
SIST EN IEC 63210:2021

01-junij-2021

Samoozdravljivi vzporedni energetski kondenzatorji za izmenične tokovne sisteme z naznačeno napetostjo nad 1000 V (IEC 63210:2021)

Shunt power capacitors of the self-healing type for AC systems having a rated voltage above 1 000 V (IEC 63210:2021)

Selbstheilende Leistungs-Parallelkondensatoren für Wechselstromanlagen mit einer Nennspannung über 1 kV (IEC 63210:2021)

Condensateurs-shunt de puissance autorégénérateurs destinés aux réseaux à courant alternatif de tension assignée supérieure à 1 000 V (IEC 63210:2021)

Ta slovenski standard je istoveten z: **EN IEC 63210:2021**

ICS:

31.060.70	Močnostni kondenzatorji	Power capacitors

SIST EN IEC 63210:2021 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 63210

April 2021

ICS 31.060.70; 29.120.99

English Version

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This European Standard was approved by CENELEC on 2021-04-15. 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, 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

European foreword

The text of document 33/651/FDIS, future edition 1 of IEC 63210, prepared by IEC/TC 33 "Power capacitors and their applications" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63210:2021.

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) 2022-01-15
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-04-15

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.

Endorsement notice

The text of the International Standard IEC 63210:2021 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 60071-2:2018	NOTE	Harmonized as EN IEC 60071-2:2018 (not modified)
IEC 60831-1	NOTE	Harmonized as EN 60831-1
IEC 60871-1	NOTE	Harmonized as EN 60871-1
IEC 60038	NOTE	Harmonized as EN 60038
IEC 60099 (series)	NOTE	Harmonized as EN 60099 (series)

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where 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 60060-1	-	High-voltage test techniques - Part 1: General definitions and test requirements	EN 60060-1	-
IEC 60071-1	2019	Insulation co-ordination - Part 1: Definitions, principles and rules	EN IEC 60071-1	2019
IEC 60071-2	1996	Insulation co-ordination - Part 2: Application guide	EN 60071-2	1997
IEC 60549	-	High-voltage fuses for the external protection of shunt capacitors	EN 60549	-

IEC 63210

Edition 1.0 2021-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Shunt power capacitors of the self-healing type for AC systems having a rated voltage above 1 000 V

Condensateurs-shunt de puissance autorégénérateurs destinés aux réseaux à courant alternatif de tension assignée supérieure à 1 000 V

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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SHUNT POWER CAPACITORS OF THE SELF-HEALING TYPE FOR AC SYSTEMS HAVING A RATED VOLTAGE ABOVE 1 000 V

FOREWORD

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IEC 63210 has been prepared by IEC technical committee 33: Power capacitors and their applications. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
33/651/FDIS	33/653/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

SHUNT POWER CAPACITORS OF THE SELF-HEALING TYPE FOR AC SYSTEMS HAVING A RATED VOLTAGE ABOVE 1 000 V

1 Scope

This document is applicable to both self-healing capacitor units and self-healing capacitor banks intended to be used, particularly, for power-factor correction of AC power systems having a rated voltage above 1 000 V and fundamental frequencies of 15 Hz to 60 Hz.

The following capacitors are excluded from this document:

– shunt power capacitors of the self-healing type for AC systems having a rated voltage up to and including 1 000 V (IEC 60831-1, -2);

– shunt power capacitors of the non-self-healing type for AC systems having a rated voltage up to and including 1 000 V (IEC 60931-1, -2 and -3);

– shunt capacitors of the non-self-healing type for AC power systems having a rated voltage above 1 000 V (IEC 60871-1, -2, -3 and -4);

– capacitors for inductive heat-generating plants operating at frequencies between 40 Hz and 24 000 Hz (IEC 60110-1 and -2);

– series capacitors (IEC 60143-1, -2, -3 and -4);

– AC motor capacitors (IEC 60252-1 and -2);

– coupling capacitors and capacitor dividers (IEC 60358-1, -2, -3, -4);

– capacitors for power electronic circuits (IEC 61071);

– small AC capacitors to be used for fluorescent and discharge lamps (IEC 61048 and IEC 61049);

– capacitors for suppression of radio interference;

– capacitors intended to be used in various types of electrical equipment, and thus considered as components;

– capacitors intended for use with DC voltage superimposed on the AC voltage.

Requirements for accessories such as insulators, switches, instrument transformers and external fuses are given in the relevant IEC standards and are not covered by the scope of this document.

The object of this document is to:

a) formulate uniform rules regarding performances, testing and rating;

b) formulate specific safety rules;

c) provide a guide for installation and operation.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60060-1, *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 60071-1:2019, *Insulation co-ordination – Part 1: Definitions, principles and rules*

IEC 60071-2:1996, *Insulation co-ordination – Part 2: Application guide* [1]

IEC 60549, *High-voltage fuses for the external protection of shunt capacitors*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1
capacitor element
element
device consisting essentially of two electrodes separated by a dielectric

[SOURCE: IEC 60050-436:1990, 436-01-03]

3.2
capacitor unit
assembly of one or more capacitor elements in the same container with terminals brought out

[SOURCE: IEC 60050-436:1990, 436-01-04]

3.3
capacitor bank
bank
number of capacitor units connected so as to act together

[SOURCE: IEC 60050-436:1990, 436-01-06]

3.4
capacitor
two-terminal device characterized essentially by its capacitance

Note 1 to entry: The term "capacitor" is used when it is not necessary to specify whether a capacitor unit or capacitor bank is meant.

[SOURCE: IEC 60050-151:2001, 151-13-28, modified – Note 1 to entry has been added.]

3.5
self-healing capacitor
self-healing metallized dielectric capacitor
capacitor (consisting of elements which have at least one electrode made of a metallic deposit on the dielectric) whose electrical properties, after local breakdown of the dielectric, are rapidly and essentially restored

[SOURCE: IEC 60050-436:1990, 436-03-12, modified – addition of "(metallized dielectric)" and "(consisting of elements whose at least one electrode is made of a metallic deposit on the dielectric)"]

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[1] Withdrawn. IEC 60071-2:1996 has been cancelled and replaced by IEC 60071-2:2018.