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Amendment to (sub)clauses 7.2, 10.1, 10.2 and 15 of EN

**iTeh STANDARD PREVIEW**  
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[SIST EN 60831-1:1999/A1:2003](https://standards.iteh.ai/catalog/standards/sist/297d3818-2eb8-41ed-94c4-de36e1ec7cbb/sist-en-60831-1-1999-a1-2003)

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**Shunt power capacitors of the self-healing type for a.c. systems  
having a rated voltage up to and including 1 kV  
Part 1: General -  
Performance, testing and rating -  
Safety requirements -  
Guide for installation and operation  
(IEC 60831-1:1996/A1:2002)**

Condensateurs shunt de puissance  
autorégénérateurs pour réseaux  
à courant alternatif de tension assignée  
inférieure ou égale à 1 kV  
Partie 1: Généralités -  
Caractéristiques fonctionnelles,  
essais et valeurs assignées -  
Règles de sécurité -  
Guide d'installation et d'exploitation  
(CEI 60831-1:1996/A1:2002)

Selbstheilende Leistungs-  
Parallelkondensatoren  
für Wechselstromanlagen  
mit einer Nennspannung bis 1 kV  
Teil 1: Allgemeines -  
Leistungsanforderungen,  
Prüfung und Bemessung -  
Sicherheitsanforderungen -  
Anleitung für Errichtung und Betrieb  
(IEC 60831-1:1996/A1:2002)

This amendment A1 modifies the European Standard EN 60831-1:1996; it was approved by CENELEC on 2003-02-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 Central Secretariat or to any CENELEC member.

This amendment 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

## CENELEC

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of document 33/376/FDIS, future amendment 1 to IEC 60831-1:1996, prepared by IEC TC 33, Power capacitors, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 60831-1:1996 on 2003-02-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented  
at national level by publication of an identical  
national standard or by endorsement (dop) 2003-11-01
- latest date by which the national standards conflicting  
with the amendment have to be withdrawn (dow) 2006-02-01

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## Endorsement notice

The text of amendment 1:2002 to the International Standard IEC 60831-1:1996 was approved by CENELEC as an amendment to the European Standard without any modification.

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NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD

CEI  
IEC

60831-1

1996

AMENDEMENT 1  
AMENDMENT 1  
2002-09

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Amendement 1

**Condensateurs shunt de puissance  
autorégénérateurs pour réseaux à courant alternatif  
de tension assignée inférieure  
ou égale à 1 000 V –**

**Partie 1:**

**Généralités – Caractéristiques fonctionnelles,  
essais et valeurs assignées – Règles de sécurité –  
Guide d'installation et d'exploitation**

<https://standards.iteh.ai/catalog/standards/sist/297d3818-2eb8-41ed-94c4-de36e1ec7cbb/sist-en-60831-1-1999-a1-2003>

Amendment 1

**Shunt power capacitors of the self-healing type for  
a.c. systems having a rated voltage up to and  
including 1 000 V –**

**Part 1:**

**General – Performance, testing and rating –  
Safety requirements – Guide for installation  
and operation**

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Commission Electrotechnique Internationale  
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Международная Электротехническая Комиссия

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## FOREWORD

This amendment has been prepared by IEC committee 33: Power capacitors.

The text of this amendment is based on the following documents:

|             |                  |
|-------------|------------------|
| FDIS        | Report on voting |
| 33/376/FDIS | 33/379/RVD       |

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

The committee has decided that the contents of the base publication and its amendments will remain unchanged until 2010. At this date, the publication will be

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

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## iTeh STANDARD PREVIEW (standards.iteh.ai)

Page 23

**7.2 Capacitance tolerances** SIST EN 60831-1:1999/A1:2003  
<https://standards.iteh.ai/catalog/standards/sist/297d3818-2eb8-41ed-94c4-de36e1ec7cb/sist-en-60831-1-1999-a1-2003>

*Replace the first three lines of this subclause by the following:*

The capacitance shall not differ from the rated capacitance by more than

- 5 % to +10 % for units and banks up to 100 kvar;
- 5 % to +5 % for units and banks above 100 kvar.

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### 10.1 Routine test

*Replace the first paragraph by the following:*

Units having all terminals insulated from the container shall be subjected to an a.c. voltage applied between the terminals (joined together) and the container. The voltage to be applied is  $2U_N + 2$  kV or 3 kV, whichever is the higher, for 10 s or 20 % higher for a minimum time of 2 s.

If the units are intended to be connected directly to the aerial power line and by agreement between the manufacturer and the user, the test shall be performed with a voltage of 6 kV.

## 10.2 Type test

*Replace the first two paragraphs by the following:*

Units having all terminals insulated from the container shall be subjected to a test according to 10.1 for a duration of 1 min.

The test on units having one terminal permanently connected to the container shall be limited to the bushing(s) and container (without elements) or to a fully insulated unit with identical internal insulation.

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## 15 Lightning impulse voltage test between terminals and container

*Replace the second paragraph by the following:*

The impulse test shall be performed with a wave of 1,2/50  $\mu$ s to 5/50  $\mu$ s having a peak value of 8 kV if the rated voltage of the capacitor is  $U_N \leq 690$  V or having a peak value of 12 kV if  $U_N > 690$  V.

If the units are intended to be connected directly to the aerial power line and by agreement between the manufacturer and the user, the impulse test shall be performed with a wave of 1,2/50  $\mu$ s to 5/50  $\mu$ s having a peak value of 15 kV if the rated voltage of the capacitor is  $U_N \leq 690$  V or having a peak value of 25 kV if  $U_N > 690$  V.

Three impulses of positive polarity followed by three impulses of negative polarity shall be applied between the terminals joined together and the container.

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