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Standard Recommendation  
S.R. CLC/TR 50454:2008

# Guide for the application of aluminium electrolytic capacitors

**S.R. CLC/TR 50454:2008**

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<b>NSAI</b> 1 Swift Square, Northwood, Santry Dublin 9	T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie W NSAI.ie	<b>Sales:</b> T +353 1 857 6730 F +353 1 857 6729 W standards.ie
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English version

## **Guide for the application of aluminium electrolytic capacitors**

Guide pour l'utilisation de condensateurs  
électrolytiques à l'aluminium

Leitfaden für die Anwendung von  
Aluminium-Elektrolyt-Kondensatoren

This Technical Report was approved by CENELEC on 2008-02-08.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the 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**

This Technical Report was prepared by the Technical Committee CENELEC TC 40XA, Capacitors.

The text of the draft was submitted to the vote in accordance with the Internal Regulations, Part 2, Subclause 11.4.3.3 (simple majority) and was approved by CENELEC as CLC/TR 50454 on 2008-02-08.

This Technical Report supersedes R040-001:1998.

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## 1 Scope and object

### 1.1 Scope

This Technical Report applies to components as described in the scope of the following standards:

- |            |   |
|------------|---|
| EN 60384-4 | Fixed capacitors for use in electronic equipment - Part 4: Sectional specification - Aluminium electrolytic capacitors with solid (MnO <sub>2</sub> ) and non-solid electrolyte |
| EN 137100  | Sectional Specification: Fixed aluminium electrolytic a.c. capacitors with non-solid electrolyte for motor starter applications - Qualification approval                        |

The information given in these documents apply to capacitors with non-solid electrolyte but may, in its appropriate clauses, apply to capacitors with solid electrolyte as well.

In cases of doubt, the application of this document shall be discussed between the user and the manufacturer of the components.

### 1.2 Object

Electrolytic capacitors in general – and aluminium electrolytic capacitors in particular – are an exception in the capacitor field because of the components close interaction of physics and chemistry. Therefore, aluminium electrolytic capacitors show, in various aspects, a technical behaviour unaccustomed to the user. That could easily lead to misapplications and even to endangering of persons and goods. The aim of this application guide is to minimize these risks by providing detailed information on the specific peculiarities of the component.

## 2 Normative references

The following referenced documents are indispensable for the application 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.

- |                 |  |
|-----------------|--|
| EN 60384-1:2001 | Fixed capacitors for use in electronic equipment - Part 1: Generic specification (IEC 60384-1:1999, mod.)  |
| EN 60384-4:2007 | Fixed capacitors for use in electronic equipment - Part 4: Sectional specification - Aluminium electrolytic capacitors with solid (MnO <sub>2</sub> ) and non-solid electrolyte (IEC 60384-4:2007) |
| EN 137000:1995  | Generic Specification: Fixed aluminium electrolytic a.c. capacitors with non-solid electrolyte for use with motors   |
| EN 137100:1995  | Sectional Specification: Fixed aluminium electrolytic a.c. capacitors with non-solid electrolyte for motor starter applications - Qualification approval   |

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