

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.

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# **CENELEC**

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

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## 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.

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## Contents

<b>1</b>	<b>Scope and object</b> .....	<b>5</b>
1.1	Scope .....	5
1.2	Object.....	5
<b>2</b>	<b>Normative references</b> .....	<b>5</b>
<b>3</b>	<b>Terms and definitions</b> .....	<b>6</b>
<b>4</b>	<b>Protection measures</b> .....	<b>7</b>
4.1	Handling and transport.....	7
4.2	Insulation.....	7
<b>5</b>	<b>General application limits</b> .....	<b>7</b>
5.1	Polarity - Reverse voltage.....	7
5.2	Voltage.....	7
5.3	Temperature range .....	8
5.4	Ripple current.....	8
5.5	Charge - Discharge.....	8
<b>6</b>	<b>Storage</b> .....	<b>8</b>
<b>7</b>	<b>External pressure</b> .....	<b>9</b>
7.1	Low air pressure .....	9
7.2	High air pressure .....	9
<b>8</b>	<b>Self-recharge phenomenon (dielectric absorption)</b> .....	<b>9</b>
<b>9</b>	<b>Flammability (passive and active)</b> .....	<b>9</b>
9.1	Passive flammability .....	9
9.2	Active flammability .....	9
<b>10</b>	<b>Internal pressure and pressure relief device</b> .....	<b>10</b>
<b>11</b>	<b>Working electrolytes and contact with an electrolyte</b> .....	<b>10</b>
<b>12</b>	<b>Parallel and series connection</b> .....	<b>11</b>
12.1	Parallel and series connection of capacitors.....	11
12.2	Balancing resistors for voltage sharing .....	12
12.3	Component failure .....	15
12.4	Back-to-back connection .....	15
<b>13</b>	<b>Clearance and creepage distances</b> .....	<b>16</b>
13.1	Distances inside the capacitor.....	16
13.2	Distances outside the capacitor.....	16
<b>14</b>	<b>Capacitor mounting</b> .....	<b>16</b>
14.1	General conditions for mounting.....	16
14.2	Component preparation .....	17
14.3	Mounting .....	17
14.4	Soldering.....	18
14.5	Transport and handling of assembled devices.....	18
<b>15</b>	<b>Cleaning solvents</b> .....	<b>19</b>
15.1	General .....	19
15.2	Cleaning solvents and process parameters .....	19
<b>16</b>	<b>Potting and gluing</b> .....	<b>20</b>
16.1	Potting and gluing materials .....	20
16.2	Curing process.....	20

<b>17</b>	<b>Aluminium electrolytic motor start capacitors .....</b>	<b>20</b>
17.1	Connection .....	20
17.2	Mains voltage and surge .....	20
17.3	Duty cycle .....	21
17.4	Discharge resistor .....	21
17.5	Operating temperature and vibration .....	21
17.6	Insulation (capacitor energised) .....	22
17.7	Failure mechanism .....	22
<b>18</b>	<b>Disposal of capacitors .....</b>	<b>22</b>

### Figures

Figure 1	- Individual balancing resistors .....	11
Figure 2	- Common centre connection .....	12
Figure 3	- Group-balancing resistors .....	12
Figure 4	- Voltage sharing analysis .....	13
Figure 5	- Back-to-back connection .....	15
Figure 6	- Typical motor start arrangement .....	20

### Table

Table 1	- Balancing examples .....	15
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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