SLOVENSKI STANDARD
SIST EN 137101:2002

01-september-2002

Blank detail specification: Fixed aluminium electrolytic a.c. capacitors with non-solid electrolyte for use with motors

Blank Detail Specification: Fixed aluminium electrolytic a.c. capacitors with non-solid electrolyte for motor starter applications - Qualification approval

Vordruck für Bauartspezifikation: Aluminium-Elektrolyt-Wechselspannungskondensatoren mit flüssigem Elektrolyten zur Verwendung im Motoranlaßbetrieb - Bauartanerkennung

Spécification particulière cadre: Condensateurs électrolytiques pour courant alternatif, à l'aluminium, à électrolyte non solide, pour application dans les démarreurs de moteur - Homologation

Ta slovenski standard je istoveten z: **EN 137101:1995**

ICS:

31.060.50	Aluminijski elektrolitni kondenzatorji	Aluminium electrolytic capacitors

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EUROPEAN STANDARD

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English version

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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 European Standard was prepared by Working Group CLC/TC CECC/WG 3.

The text of the draft based on document CECC(Secretariat)3249 was submitted to the formal vote; together with the voting report, circulated as document CECC(Secretariat)3661, it was approved as EN 137101 on 1995-06-24.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1996-07-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1997-07-01

INTRODUCTION

Blank detail specification

A blank detail specification is a supplementary document to the sectional specification and contains requirements for style and layout and minimum content of detail specifications. In the preparation of detail specifications the content of 1.4 of the sectional specification shall be taken into account.

Identification of the detail specification and of the component

The first page of the detail specification should have the layout recommended on page 4 of this blank detail specification. The numbers between the brackets correspond to the following information which shall be inserted at the position indicated:

[1] The name of the National Standards Organization under whose authority the detail specification is published and, if applicable, the organization from whom the detail specification is available.
[2] The CECC symbol and the number allotted to the detail specification by the CECC General Secretariat.
[3] The number and issue number of the CECC generic or sectional specification as relevant; also national reference if different.
[4] If different from the CECC number, the national number of the detail specification, date of issue and any further information required by the national system, together with any amendment numbers.
[5] A brief description of the component or range of components.
[6] Information on typical construction (when applicable).

For [5] and [6] the text to be given in the detail specification should be suitable for an entry in CECC 00 200 (Register of Approvals) and CECC 00 300 (Register of National Documents).

[7] Outline drawing with main dimensions which are of importance for interchangeability and/or reference to the appropriate national or international documents for outlines. Alternatively the drawing may be given in an annex to the detail specification, but [7] should always contain an illustration of the general outer appearance of the component.
[8] The level(s) of quality assessment covered by the detail specification, as appropriate.
[9] Reference data giving information on the most important properties of the component which allow comparison between the various component types intended for the same, or for similar applications.

[1]	[2] CECC 37 101-xxx
[3] ELECTRONIC COMPONENTS OF ASSESSED QUALITY - DETAIL SPECIFICATION IN ACCORDANCE WITH:	[4]
[7] Outline drawing (... angle projection):	[5] FIXED ALUMINIUM ELECTROLYTIC A.C. CAPACITORS WITH NON-SOLID ELECTROLYTE FOR MOTOR STARTER APPLICATIONS
	[6] TYPICAL CONSTRUCTION (Examples): cylindrical/rectangular metallic/non metallic case insulated/non insulated case solder/screw terminations
(Other shapes are permitted within the dimensions given, see Table 1)	[8] ASSESSMENT LEVEL: E
For notes [] see page 3	

[9] REFERENCE DATA:

Information about manufacturers who have components qualified to this detail specification is available in the current CECC 00 200: Register of Firms, Products and Services Approved under the CECC System (Register of Approvals).

1 - GENERAL DATA

1.1 Method of mounting for vibration test

See 1.3.2 of EN 137100.

1.2 Dimensions

Table 1

Case size reference	Dimensions (in mm)						
	D	L	H	d			

NOTE 1 - When there is no case size reference, Table 1 may be omitted and the dimensions shall be given in Table 2, which then becomes Table 1.
NOTE 2 - The dimensions shall be given as maximum dimensions or as nominal dimensions with a tolerance.

1.3 Ratings and characteristics

Capacitance range (See Table 2)
Tolerance on rated capacitance
Rated voltage (See Table 2)
Climatic category
Rated temperature
Tangent of loss angle
Vibration test severity
Insulation resistance (if applicable)

Table 2

Values of capacitance related to case sizes

Rated capacitance (µF)	Rated voltage (V r.m.s.)	
	Case size	Case size

1.4 Related documents

Generic specification	EN 137000:1995
Sectional specification	EN 137100:1995

1.5 Marking

The marking of the capacitor and the packing shall be in accordance with the requirements of 1.5 of EN 137100.

Note - The details of the marking of the component and packing shall be given in full in the detail specification.

1.6 Ordering information

Orders for capacitors covered by this specification shall contain, in clear or coded form, the following minimum information:

a) Rated capacitance
b) Tolerance on rated capacitance
c) Rated a.c. voltage
d) Rated duty cycle
e) Number and issue reference of detail specification and style reference.

1.7 Certified records of released lots

Required/not required.

1.8 Additional information (not for inspection purposes)

1.9 Additional or increased severities or requirements to those specified in the generic and/or sectional specification

Note - Additions or increased requirements should be specified only when essential.

Table 3
Other characteristics

This table is to be used for defining characteristics which are additional to or more severe than those given in the sectional specification.

2 - INSPECTION REQUIREMENTS

2.1 Procedures

2.1.1 For qualification approval the procedures shall be in accordance with 3.4 of EN 137100.

2.1.2 For Quality Conformance Inspection the test schedules (Tables 4A and 4B) include sampling, periodicity, severities and requirements. The formation of inspection lots is covered by 3.5.1 of EN 137100.

TABLE 4A
TEST SCHEDULE FOR LOT-BY-LOT TESTS (GROUP A AND B INSPECTION)
ASSESSMENT LEVEL E

Notes - see end of table

Clause number and test[1]	Conditions of test[1]	IL	AQL% [2]	Performance Requirements [1]
Group A1	**Non-destructive**	S4	2,5	
4.2 Visual examination				As in 4.2 Marking legible as specified in 1.5 of this specification
4.2 Dimensions (gauging)				See Table 1 of this specification
Group A2	**Non-destructive**	II	1,0	
4.9 Sealing	Duration: 8 h Temperature: rated maximum temperature + 10 °C			No seepage of electrolyte or filling material
4.3.1 Capacitance	Applied voltage: U_R V r.m.s. Frequency: f_R Hz			Within specified tolerance
4.3.2 Tangent of loss angle	Applied voltage: U_R V r.m.s. Frequency: f_R Hz			≤ 0,15
4.3.4 Voltage proof between terminations	Applied voltage: 1,2 U_R V r.m.s. Duration: 2 s			No breakdown
4.3.5 Voltage proof between terminations and case	Applied voltage: 2 U_R + 1000 V r.m.s but not less than 2000 V r.m.s.			No breakdown or flashover
Group B1	**Non-destructive**[4]	S3	2,5	
4.6 Solderability[3]	Method: ...[5]			Good tinning as evidenced by free flowing of the solder with wetting of the terminations
4.3.2 Tangent of loss angle	Applied voltage: U_R V r.m.s. Frequency: f_R Hz			≤ 0,15
4.3.3 Insulation resistance of external insulation (if applicable)				≥ 100 MΩ