

Förderverein für Elektrotechnische Normung (FEN) e. V.
Cenelec Electronic Components Committee

CECC



Système Harmonisé d'Assurance de la Qualité
des Composants Electroniques

SPECIFICATION PARTICULIERE:
CONDENSATEURS ELECTROLYTIQUES
A L'ALUMINIUM A ELECTROLYTE
NON SOLIDE

Harmonized System of Quality Assessment for
Electronic Components

DETAIL SPECIFICATION:
ALUMINIUM ELECTROLYTIC
CAPACITORS WITH NON-SOLID
ELECTROLYTE

Harmonisiertes Gütebestätigungssystem für
Bauelemente der Elektronik

BAUARTSPEZIFIKATION:
ALUMINIUM-ELEKTROLYT-
KONDENSATOREN MIT FLÜSSIGEM
ELEKTROLYTEN

1

Edition
Issue
Ausgabe

CECC 30301-803

1988

AVA Documents
Document Sharing Hub

Information about the System may be obtained from:



FEN e.V. Secretariat
and
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or from the National Authorized Institutions
of the participating countries listed
who can supply copies of:

- 1 The Internal Regulations of the FEN e.V.
- 2 The Rules of Procedure of the System
- 3 CECC Specifications of the FEN and National Specifications for the System
- 4 CECC 00 200: Qualified Products List (QPL)
- 5 CECC 00 300: CECC Publications and their related national documents
- 6 Other CECC Publications and publicity documents

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FOREWORD

The CENELEC Electronic Components Committee (CECC) is composed of those member countries of the European Committee for Electrotechnical Standardization (CENELEC) who wish to take part in a harmonized System for electronic components of assessed quality.

The object of the System is to facilitate international trade by the harmonization of the specifications and quality assessment procedures for electronic components, and by the grant of an internationally recognized Mark, or Certificate, of Conformity. The components produced under the System are thereby accepted by all member countries without further testing.

This specification should be read in conjunction with the current regulations for the CECC System.

At the date of printing of this specification, the member countries of the CECC are Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom, and copies of it can be obtained from the addresses shown on the blue fly sheet.

PREFACE

This specification was prepared by CECC WG 3 "Capacitors".

It is based, wherever possible, on the Publications of the International Electrotechnical Commission.

The text of this detail specification was circulated to the members of CECC WG 3 and was approved for publication under the accelerated procedure for the acceptance of detail specifications in accordance with Decision 10 of the minutes of the CECC CD in document CECC(Secretariat)1838.

Secretariat Note

This detail specification was originally drafted by members of CEMEC WG PC 1A and discussed as document

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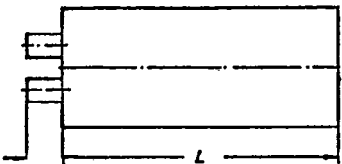
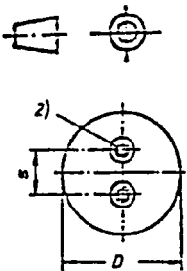
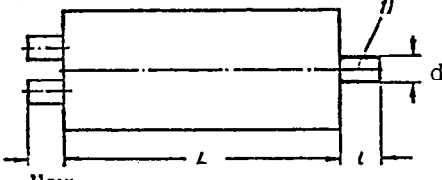
by WG 3 at its last meeting in Scheveningen in 1987 with the decision to publish a revised version without voting.

The revision was carried out by a German delegate of WG 3.

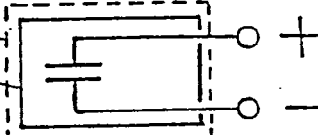
To allow early publication, this detail specification is issued initially in English only.

Corresponding versions in French and German will follow on request of ONHs.

CECC 30 301-803 Issue 1

Specification available from: CECC General Secretariat	CECC 30 301-803 (Issue 1) 1988 
ELECTRONIC COMPONENTS OF ASSESSED QUALITY - DETAIL SPECIFICATION IN ACCORDANCE WITH: CECC 30 000 Issue 3, Amdts. 1 to 5 CECC 30 300 Issue 2	
First angle projection Style BC   Style BD  Notes: 1) Stud not fitted to style BC 2) M5 thread, depth 8 mm Dimensions in mm For d, D, l, L, s see table 1 Polarity shall be clearly marked	WG-DETAIL SPECIFICATION FOR FIXED ALUMINIUM ELECTRO- LYTIC CAPACITORS WITH NON-SOLID ELECTROLYTE Polar Cylindrical Metallic case Style BC: plain, insulated Style BD: studded can, not insulated (insulation optional) Screw terminations
	Assessment level E

QUICK REFERENCE DATA: Rated capacitance (C_R) range: 150 to 150 000 μF
 Capacitance tolerance: -10/+30 %
 Rated voltage (U_R) range: 16 to 400 V d.c.
 Climatic category: 40/085/56
 Performance grade: long-life grade 5000 h

Circuit diagram Notes: 3) optional for Style BD 4) contact of minus pole to metallic can not defined	insulation 3) case 4) 
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Information about manufacturers who have components qualified to this detail specification is available in the current CECC 00 200: Qualified Products List

It is intended that this specification should replace national specifications. Relevant numbers will be submitted by the national committees and published under issue 2 of this specification.

1. GENERAL DATA

1.1 RECOMMENDED METHOD OF MOUNTING (for vibration and shock testing)

The capacitors are to be mounted by their stud (Style BD) or using clamps (Style BC) available from the manufacturer.

1.2 DIMENSIONS

Table 1

Style	case size reference	Dimensions (mm)				
		D max.(1)	L max.(1)	s ±0,5	d	l
BC and BD		37		12,7	M8	12 ±1
	33		66			
	34		86			
	35		109			
		52		22,2	M12	16 ±1,5
	54		86			
	55					
	65	67	109	28,5		
	75	78		31,7		
	76		149			

1) including insulation sleeve if any.

1.3 RATINGS AND CHARACTERISTICS

Capacitance range	150 to 150 000 µF
Tolerance on rated capacitance	-10/+30 %
Rated voltage range	16 to 400 V d.c.
Category voltage	rated voltage
Climatic category	40/085/56
Rated temperature	85 °C
Rated ripple current	see Table 2B and sub-clause 1.8
Tangent of loss angle	see Table 2B
Equivalent series resistance (ESR)	see Table 2B
Leakage current	see Table 2B
Impedance	see Table 2B
Maximum reverse voltage	2 V

Table 2A
Values of capacitance and voltage related to case sizes

rated voltage (V)	16	25	40	63	100	160	250	350	385 or 400
rated capacitance (μF)	diameter (mm) x length (mm) case size reference								
100									
150									37x66 33
220								37x86 34	37x86 34
330								37x109 35	37x109 35
470						37x66 33	37x86 34	52x86 54	52x86 54
680						37x86 34	52x86 54	52x109 55	52x109 55
1 000					37x66 33	37x109 35	52x86 54	52x109 55	52x109 55
1 500						52x86 54	52x109 55	67x109 65	67x109 65
2 200				37x66 33	37x86 34	52x109 55	67x109 65	78x109 75	78x109 75
3 300				37x86 34	52x86 54	67x109 65	78x109 75	78x149 76	78x149 76
4 700		37x66 33	37x86 34	37x109 35	52x109 55	78x109 75	78x149 76		
6 800				52x86 54	67x109 65	78x149 76			
10 000	37x66 33	37x86 34	37x109 35	52x109 55	67x109 65				
15 000	37x86 34	37x109 35	52x86 54	67x109 65	78x149 76				
22 000	37x109 35	52x86 54	52x109 55	78x109 75					
33 000	52x86 54	52x109 55	67x109 65	78x149 76					
47 000	52x109 55	67x109 65	78x109 75						
68 000	67x109 65	78x109 75	78x149 76						
100 000	78x109 75	78x149 76							
150 000	78x149 76								