

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 FIXES POUR COURANT
CONTINU EN FILM DE POLYTEREPHTALATE
D'ETHYLENE ET A ARMATURES
EN FEUILLES METALLIQUES

Harmonized System of Quality Assessment for
Electronic Components

DETAIL SPECIFICATION:

FIXED POLYETHYLENE-TEREPHTHALATE
FILM DIELECTRIC METAL FOIL
CAPACITORS FOR DIRECT CURRENT

Harmonisiertes Gütebestätigungssystem für
Bauelemente der Elektronik

BAUARTSPEZIFIKATION:

FESTKONDENSATOREN MIT KUNSTSTOFF-FOLIE
AUS POLYÄTHYLENTEREPHTHALAT UND
BELÄGEN AUS METALLFOLIEN FÜR
GLEICHSTROM (KT)



1

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Documents

Document Sharing Hub

Information about the System may be obtained from:



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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

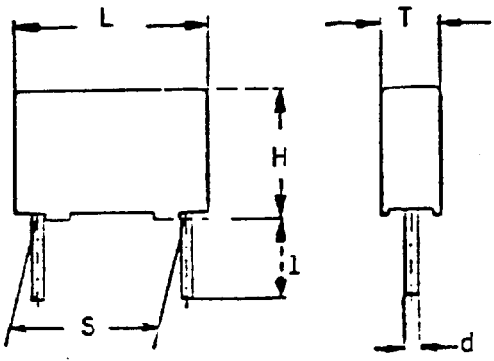
This specification was prepared by CECC WG 3 "Capacitors".

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

The text of this 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 Decisions 10, 11 and 12 of the minutes of the CECC CD meeting in document CECC(Secretariat)1838.

Secretariat Note:

The document was discussed by WG 3 at its Stockholm meeting in May 1990.

Specification available from: CECC General Secretariat	CECC 30 101-801 1990	
ELECTRONIC COMPONENTS OF ASSESSED QUALITY - DETAIL SPECIFICATION IN ACCORDANCE WITH: CECC 30 000, Issue 3, Amdts. 1 to 6 CECC 30 100, Issue 2, Amdts. 1 to 3	Issue 1	
Outline and dimensions: (first angle projection)	DETAIL SPECIFICATION FOR FIXED POLYETHYLENE-TEREPHTHALATE FILM DIELECTRIC METAL FOIL D.C. CAPACITORS	
	TYPICAL CONSTRUCTION:	
(Dimensions: see Table 1) All dimensions in mm	rectangular non metallic insulated unidirectional leads intended for use on printed boards	
	Assessment level E	

Quick reference data:

Rated capacitance range: 0,22 nF to 0,33 μ F
Tolerance on rated capacitance: $\pm 20\%$, $\pm 10\%$ and $\pm 5\%$
Rated voltages: 63, 100, 160 and 400 V d.c.
Climatic category: 55/100/56

Information about manufacturers who have components qualified to this detail specification is available in the current CECC 00 200: Qualified Products List.

1. General data

1.1 Recommended method of mounting

Normal use:

The capacitors are designed for mounting on printed wiring boards and shall be fixed by soldering the leads.

Specified method of mounting for vibration and shock tests

The capacitors shall be pressed down firmly onto a rigid mounting surface and fixed by the leads. For case sizes with a mass > 6 g the capacitors shall be mounted in the same way and the body shall be clamped.

1.2 Dimensions

Table 1: Dimensions (mm) and case sizes

Case size reference	Dimensions max. T x H x L	l Notes 1,2	d Note 3	S	
				Style 1 e = 2,5	Style 2 e = 2,54
1	2,5 x 7,5 x 7,2	+ 1,0	0,5 / 0,6	5,0 ± 0,4	5,08 ± 0,4
2	3,5 x 8,5 x 7,2	5			
3	4 x 10 x 7,7	- 1,5			
4	5 x 10 x 8,5				
5	3 x 8,5 x 11	+ 1,0	0,6/0,7/0,8	7,5 ± 0,4	7,62 ± 0,4
6	4 x 10 x 11	5			
7	5 x 11 x 11	- 1,5			
8	6 x 12 x 11,5				
9	4 x 10 x 14	+ 1,0 5 - 1,5	0,6/0,7/0,8	10 ± 0,4	10,16 ± 0,4
10	5 x 12 x 14				
11	5 x 16 x 14				
12	6 x 12,5 x 14				
13	7 x 12,5 x 14	+ 1,0 5 - 1,5	0,6/0,7/0,8	15 ± 0,4	15,24 ± 0,4
14	8,5x 14,5 x 14				
15	7 x 14 x 19				
16	8 x 12,5 x 19				
17	10,5x 15 x 19	- 1,5			
18	12,5x 17,5 x 19				
19	15 x 20 x 19				

For notes 1 - 3 see following page.

Notes to Table 1:

1. When capacitors to this specification are supplied in tape, the dimension 1 shall be in accordance with the requirements of IEC 286-2.
2. Capacitors with other lead lengths may be delivered, provided the dimensional details are given in full in the manufacturer's data sheet.
3. Lead diameter to be given with the order. See also 1.6 Ordering information.

1.3 Ratings and characteristics

Capacitance range:	0,22 nF to 0,33 μ F
Tolerance on rated capacitance:	$\pm 20 \%$, $\pm 10 \%$ and $\pm 5 \%$
Rated d.c. voltage:	63 V, 100 V, 160 V, 400 V
Category voltage:	0,8 U_R
Climatic category:	55/100/56
Rated temperature:	+ 85 °C
Maximum a.c. voltage	see table 2
Tangent of loss angle:	$\leq 0,01$ at 1 kHz
Insulation resistance:	between terminations: $\geq 30\ 000\ M\Omega$ between terminations and case: $\geq 30\ 000\ M\Omega$

Table 2 ALead spacing $S = 2e$ (5,0/5,08 mm)Values of Capacitance and voltage related to case sizes

Rated Voltage UR (d.c.)	63	100	160	400
Rated voltage UR (a.c.) 50 Hz	40	63	100	200
Rated capacitance in nF	case size	case size	case size	case size
0,22	-	-	1	-
0,33	-	-	1	-
0,47	-	-	1	-
0,68	-	-	1	-
1,0	-	1	-	-
1,5	-	1	-	-
2,2	-	1	-	-
3,3	-	1	-	-
4,7	-	1	-	-
6,8	-	2	-	-
10	-	2	-	-
15	-	4	-	-
22	-	4	-	-
33	3	-	-	-
47	4	-	-	-

Table 2 BLead spacing $S = 3e$ (7,5/7,62 mm)Values of Capacitance and voltage related to case sizes

Rated Voltage U_R (d.c.)	63	100	160	400
Rated voltage U_R (a.c.) 50 Hz	40	63	100	200
Rated capacitance in nF	case size	case size	case size	case size
1,0	-	5	-	-
1,5	-	5	-	-
2,2	-	5	-	-
3,3	-	5	-	-
4,7	-	5	-	-
6,8	-	5	-	-
10	-	5	-	-
15	5	-	-	-
22	5	-	-	-
33	6	-	-	-
47	6	-	-	-
68	8	-	-	-
100	8	-	-	-

Table 2 C

Lead spacing S = 4e; 6e (10,0/10,16 mm; 15,0/15,24 mm)

Values of Capacitance and voltage related to case sizes

Rated Voltage U_R (d.c.)	63	100	160	400	Lead spacing
Rated voltage U_R (a.c.) 50 Hz	40	63	100	200	
Rated capacitance in nF	case size	case size	case size	case size	
1,0	-	-	-	9	4e
1,5	-	-	-	9	
2,2	-	-	-	9	
3,3	-	-	-	9	
4,7	-	-	9	9	
6,8	-	-	9	10	
10	-	9	9	10	
15	-	9	9	12	
22	-	9	10	14	
33	9	9	12	14	
47	9	10	12	17	6e
68	10	12	13	17	
100	10	13	15	17/18	
150	11/12	16	-	18/19	
220	-	17	-	-	
330	-	18	-	-	