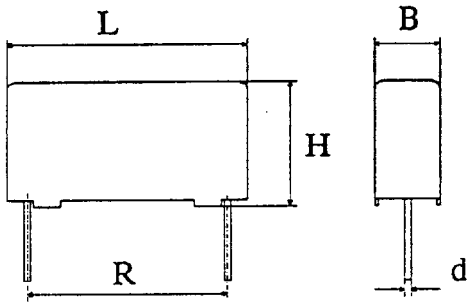


FINNISH ELECTROTECHNICAL STANDARDS ASSOCIATION (SESKO)	CECC 30 401 - 042 
ELECTRONIC COMPONENTS OF ASSESSED QUALITY – DETAIL SPECIFICATION IN ACCORDANCE WITH CECC 30 000 CECC 30 400	(Manufacturer's detail specification) January 1989, Issue 3 (EVOX OY)
DETAIL SPECIFICATION FOR FIXED METALLIZED POLYETHYLENE-TEREPHTALATE FILM DIELECTRIC DC CAPACITORS: TYPICAL CONSTRUCTION: Rectangular. Non-metallic case. Rigid, radial terminations. Intended for printed circuits.	
 $d = 0.50 \pm 0.05$ mm for 5mm lead spacing $d = 0.60$ or 0.70 ± 0.05 mm for 7.5 mm lead spacing $d = 0.60$ or 0.80 ± 0.05 mm for 10 mm lead spacing $d = 0.80 \pm 0.05$ mm for 15 - 27.5 mm lead spacing	QUICK REFERENCE DATA: RATED CAPACITANCE RANGE: 1000 pF to 10 uF. CAPACITANCE TOLERANCE: $\pm 20\%$, $\pm 10\%$, $\pm 5\%$ (other tolerances on request) RATED VOLTAGE DC: 50 V to 1000 V CLIMATIC CATEGORY: 55/100/56 PERFORMANCE GRADE: 1 ASSESSMENT LEVEL: E plus additional
See the relevant Qualified Products List for the availability of components qualified to this detail specification.	

1. DIMENSIONS

BOX SIZE	B max	H max	L max	LEAD SPACING R
501	2.5	6.5	7.2	5
502	3.5	8	7.2	5
503	4.5	9	7.2	5
504	5	10	7.2	5
505	6	11	7.2	5
506	7.2	13	7.2	5
750	2.5	6	10.0	7.5
751	4	8	10.5	7.5
753	5	11	10.5	7.5
754	6	12	10.5	7.5
101	4	9	13	10
102	4.5	10.5	13	10
103	5.5	11.5	13	10
151	5.5	11	18	15
152	6.5	13	18	15
153	7.5	14	18	15
154	8.5	15.5	18	15
221	6.5	15	25	22.5
222	7.5	16.5	25	22.5
223	8.5	18.5	25	22.5
224	10.5	20.5	25	22.5
271	11.5	21	31.5	27.5
272	14	24.5	31.5	27.5

TABLE 1

All the measures are the maximums with the accuracy of 0.05 mm.

2. SPECIFIED MOUNTING METHOD FOR VIBRATION AND BUMP TEST

The capacitors shall be pressed down firmly on to a rigid mounting surface and fixed by soldering the leads.

3. RATING CHARACTERISTICS

3.1 Grade	Long life grade
3.2 Capacitance range	0.001 μ F to 10 μ F
3.3 Capacitance tolerance	$\pm 20\%$, $\pm 10\%$, $\pm 5\%$ (other tolerances on request)
3.4 Rated voltage (UR)	50 V to 1000 V
3.5 Category voltage (UC)	0.8 x UR
3.6 Rated temperature	+85 °C

3.7 Tangent of loss angle

Table 2

	$C \leq 0.1 \mu\text{F}$	$0.1 \mu\text{F} < C \leq 1 \mu\text{F}$	$C > 1 \mu\text{F}$
by 1 kHz	≤ 0.008	≤ 0.008	0.01
by 10 kHz	≤ 0.015	≤ 0.015	—
by 100 kHz	≤ 0.030	—	—

3.8 Insulation resistance

Table 3

Minimum RC product R = Insulation resistance C = Rated capacitance s		Minimum insulation resistance between the terminations M Ω		Minimum insulation resistance between the terminations and case M Ω
Rated capacitance > 0.33 μF		$\leq 0.33 \mu\text{F}$		
Rated voltage > 100 V	$\leq 100 \text{ V}$	> 100 V	$\leq 100 \text{ V}$	
10 000	5000	30 000	15 000	30 000

3.9 Climatic category

55/100/56

TABLE 4

Values of capacitance and of voltage related to case sizes

4a

Capacitance nF	R = 5					R = 7.5					
	50V	63V	100V	250V	400V	50 V	63 V	100 V	250 V	400V	630V
1	501	501	501	501	501	750	750/751	750/751	750/751	750/751	750/751
1.5	501	501	501	501	501	750	750/751	750/751	750/751	750/751	750/751
2.2	501	501	501	501	501	750	750/751	750/751	750/751	750/751	751
3.3	501	501	501	501	501	750	750/751	750/751	750/751	750/751	751
4.7	501	501	501	501	501	750	750/751	750/751	750/751	750/751	751
6.8	501	501	501	501	502	750	750/751	750/751	750/751	750/751	751
10	501	501	501	501	502	750	750/751	750/751	750/751	751	753
15	501	501	501	501	502	750	750/751	750/751	750/751	751	753
22	501	501	501	502	503	750	750/751	750/751	751	753	754
33	501	501	501	502	504	750	750/751	750/751	751	753	
47	501	501	501	503	506	750	750/751	750/751	751	754	
68	501	501	502	504		750	750/751	751	753		
100	501	501	502	505		750	750/751	751	753		
150	501	502	503	506		750	750/751	753	754		
220	501	502	504			750	751	753			
330	502	503	505			750	751	754			
470	503	504	506			751	753	754			
680	504	505				751	754				
1000	504	505				753	754				
1500	505	506				753					
2200	506					754					

4b

Capacitance nF	R = 10 - 27,5					
	63 V	100 V	250 V	400 V	630 V	1000 V
1	101	101	101	101	101	101
1.5	101	101	101	101	101	101
2.2	101	101	101	101	101	101
3.3	101	101	101	101	101	101
4.7	101	101	101	101	101	102
6.8	101	101	101	101	101	103
10	101	101	101	101	101	151
15	101	101	101	101	103	151
22	101	101	101	101	103	152
33	101	101	101	102	151	221/154
47	101	101	101	151/103	152	221/154
68	101	101	101	151	153	221
100	101	101	151/103	152	221/154	223
150	101	101	151	153	223	271
220	101	102	151	221/154	223	271
330	101	151/103	153	223	271	272
470	101	151/103	221/153	223	271	272
680	151/103	152	221/154	271	272	
1000	151/103	153	222/154	271		
1500	152	221/154	271/222	272		
2200	153	222/154	271/224			
3300	221/154	224	271			
4700	222	271/224	272			
6800	223	271				
10000	271/224	272				