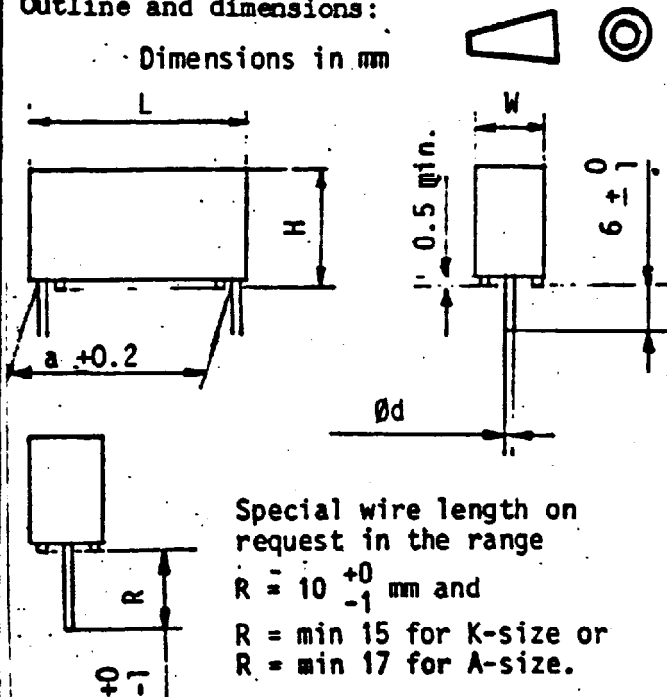


Specification available from: SVENSKA ELEKTRISKA KOMMISSIONEN (SEK)	CECC 30401-029	
ELECTRONIC COMPONENTS OF ASSESSED QUALITY - DETAIL SPECIFICATION IN ACCORDANCE WITH: SEN 49 01 00 SEN 49 01 40	(Manufacturer's detail specification) Issue 3, December 1986 (AB RIFA)	
Outline and dimensions: Dimensions in mm  Special wire length on request in the range $R = 10^{+0}_{-1}$ mm and $R = \text{min } 15$ for K-size or $R = \text{min } 17$ for A-size.	DETAIL SPECIFICATION FOR FIXED METALLIZED POLYETHYLENE-TEREPHTHALATE FILM DIELECTRIC DC CAPACITORS: TYPICAL CONSTRUCTION: Rectangular. Non-metallic case Rigid, radial terminations. Intended for printed circuits.	
	ASSESSMENT LEVEL: E and additional.	

QUICK REFERENCE DATA:

RATED CAPACITANCE RANGE:
1000 pF to 1 µF

CAPACITANCE TOLERANCE:
± 20%
(±5, ±10% on request)

PERFORMANCE GRADE 1:
(Long life)

RATED VOLTAGES DC:

0.022 µF to 1.0 µF for 100 V d.c.
6800 pF to 0.47 µF for 250 V d.c.
1000 pF to 0.15 µF for 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 DATA1.1 Recommended method of mountingFor user purpose:

The capacitors are designed to be mounted on PCB:s by soldering to the terminations.

For vibration and bump testing:

The components shall be mounted by their terminations on a rigid surface plate to simulate a printed circuit board. The body of the component shall be pressed firmly against the mounting surface.

1.2 DimensionsTable 1

Case size reference	DIMENSIONS in mm				
	W _{max}	L _{max}	H _{max}	a ±0.2	Ød $\pm_{0}^{0.06}$
K1	4.0	10.5	8.0	7.6	0.6
A1	4.5	13.0	8.0	10.2	0.6
A2	4.5	13.0	10.5	10.2	0.6
B11	5.5	18.0	10.5	15.0	0.8
B21	7.5	18.0	12.0	15.0	0.8
B22	7.5	18.0	13.5	15.0	0.8

1.3 Ratings, characteristics

Capacitance range

See table 2

Capacitance tolerances in percent

±20 code M, (±10 code K, and ±5 code J on special request)

Rated voltage U_R

See table 2

Category voltage U_C

See table 2

Climatic category

55 / 100 / 56

Rated temperature

+85°C

Max. pulse load

The capacitors can be subjected to charge and discharge voltage (du/dt V μ s) stated in the table below.

Rated voltage	max du/dt a=7.6mm	max du/dt a=10.2mm	max du/dt a=15mm
100	12	11	10
250	21	19	18
400	30	27	25

Test values for discharge giving approximately 10 times the values in the table are given in Group 4.

Tangent of loss angle

≤ 0.03 at 100 kHz for $C < 0.1 \mu F$
 ≤ 0.015 at 10 kHz for $C \geq 0.1 \mu F$ to $1 \mu F$
 ≤ 0.008 at 1 kHz for $C \geq 1000 pF$ to $1 \mu F$

Insulation resistance
between terminations

$> 30\,000 M\Omega$ for $C < 0.33 \mu F$
 $\geq 10\,000 \Omega F$ for $C \geq 0.33 \mu F$

between terminations and case

$\geq 30\,000 M\Omega$

Table 2

Values of capacitance related to voltages and case sizes.

Rated capaci- tance in μF	Voltage		
	$U_R = 100 \text{ V d.c.}$ Voltage code D	$U_R = 250 \text{ V d.c.}$ Voltage code H	$U_R = 400 \text{ V d.c.}$ Voltage code K
	$U_C = 80 \text{ V d.c. at } 100^\circ\text{C}$	$U_C = 200 \text{ V d.c. at } 100^\circ\text{C}$	$U_C = 320 \text{ V d.c. at } 100^\circ\text{C}$
0.0010			K1
0.0015			K1
0.0022			K1
0.0033			K1
0.0047			K1
0.0068		K1	K1
0.010		K1, A1	A1, K1
0.015		K1, A1	A1
0.022	K1	K1, A1	A2
0.033	K1	K1, A1	A2
0.047	K1, A1	A1	B11
0.068	K1, A1	A2, B11	B11
0.10	K1, A1	A2, B11	B21
0.15	A2	B11	B22
0.22	A2	B11	
0.33	B11	B22	
0.47	B11	B22	
0.68	B21		
1.0	B22		

1.4 Related documents

Generic specification: CECC 30 000 (Issue 3)

Sectional specification: CECC 30 400 (Issue 2)

1.5 Marking

The following details selected from those listed in 1.4 of CECC 30 400 are given on the capacitor.

Rated capacitance	}	coded according to IEC Publication 62
Year and month of manufacture		
Tolerance on rated capacitance		

Rated voltage

"353" indicating manufacturer's type designation

Manufacturer's name

The package containing the capacitors is clearly marked with all information above and:

Category voltage

Climatic category

Reference to number of detail specification