

BRITISH STANDARDS INSTITUTION
2 PARK STREET, LONDON W1A 2BS.

BS CECC 31.601-001

ISSUE 1 JUNE 1983

SPECIFICATION AVAILABLE FROM : AS SHOWN
IN PD 9002 AND CECC 00 200 AND
MPE-DUBILIER LIMITED
P.O. BOX 11, HAMMOND ROAD, KIRKBY
INDUSTRIAL ESTATE, LIVERPOOL L33 7UL.
TELEPHONE 051 547 2600. TELEX 629153



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ELECTRONIC COMPONENTS OF ASSESSED QUALITY
DETAIL SPECIFICATION IN ACCORDANCE WITH
BSE 9070:1975
CECC 30 000: 1975 CECC 31 600

MANUFACTURERS TYPE NUMBER
NITROGOL RANGE
STYLES CP.10 and CP.11

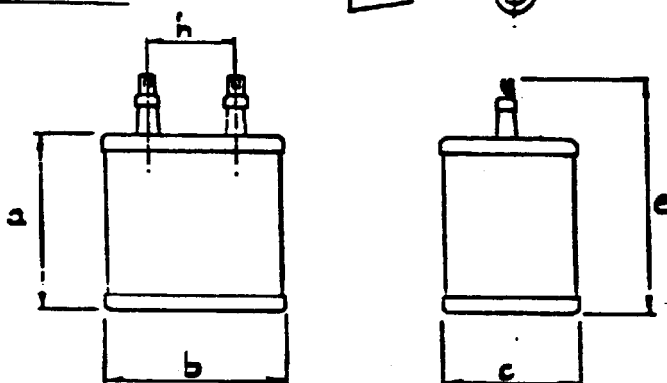
SEE PD 9002 and CECC 00 200

FOR ORDERING INFORMATION SEE
PAGE 2.

Outline Drawing

Third Angle Projection.

Style CP10.



See Table 1 for dimensions
See Appendix 'A' for mounting clips
See Appendix 'B' for details of panel
perforations, earth terminal (style CP.11)
and lid recess

Marking information see Clause 5.

FIXED PAPER DIELECTRIC CAPACITORS

TYPICAL CONSTRUCTION :-

IMPREGNATED PAPER WITH FOIL
ELECTRODES.
RECTANGULAR METAL CASE.
CERAMIC-METAL SEALED TAG
TERMINATIONS.

QUICK REFERENCE DATA :-

RATED CAPACITANCE RANGE 0.05 μ F TO
8.0 μ F

CAPACITANCE TOLERANCE $\pm 5\%$ $\pm 10\%$
 $\pm 20\%$

RATED VOLTAGE RANGE 600 V to 10 kV
d.c. (See Table 2)

CLIMATIC CATEGORY 40/100/56

ASSESSMENT LEVEL 'E'

See Table 2 for ratings.

Refer to Qualified Products List PD 9002 and/or CECC 00 200 for details of
manufacturers approved to this specification.

(1)

1. DIMENSIONS

TABLE 1

CASE SIZE STYLE CP10	DIMENSIONS IN mm						
	a max	b max	c max	e max	h 0.8	m 0.8	j 0.8
D	65.1	46.05	20.65	79.37	19.05	12.7	-
E	65.1	52.4	20.65	79.37	19.05	12.7	-
F	65.1	49.22	30.17	79.37	19.05	12.7	-
G	65.1	55.57	33.35	79.37	19.05	12.7	-
GA	65.1	55.57	33.35	87.31	25.4	12.7	6.35
H	65.1	49.22	49.22	79.37	19.05	12.7	-
J	65.1	49.22	55.57	79.37	19.05	12.7	-
JA	65.1	55.57	49.22	87.37	25.4	12.7	6.35
K	65.1	61.92	55.57	79.37	19.05	12.7	-
KA	65.1	61.92	55.57	87.31	25.4	12.7	12.7
L	65.1	80.97	49.22	104.77	47.62	19.05	12.7
M	120.67	49.22	49.22	136.52	19.05	12.7	-
N	120.67	68.27	42.87	136.52	19.05	12.7	-
NA	120.67	68.27	42.87	144.46	25.4	12.7	6.35
P	120.67	80.97	42.87	161.92	47.62	19.05	6.35
R	120.67	49.22	80.97	136.52	19.05	12.7	-
S	120.67	87.32	68.27	136.52	38.1	12.7	-
SA	120.67	87.32	68.27	144.46	38.1	12.7	12.7
SB	120.67	87.32	68.27	161.92	47.62	19.05	12.7
T	120.67	100.02	131.77	136.52	44.45	12.7	-
TA	120.67	131.77	100.02	144.46	50.8	12.7	19.05
TB	120.67	131.77	100.02	161.92	50.8	19.05	19.05
U	231.8	131.77	90.5	255.58	50.8	12.7	19.05
UA	231.8	131.77	90.5	271.46	50.8	19.05	19.05

Note : Type U and Ua are designed for vertical mounting only.
Where an earth terminal is fitted call for Style CP.11. These are indicated in table above by 'j' dimension.

2. MOUNTING

See Appendix A to this specification for suitable mounting brackets
Two or more will be required depending on the size of the capacitor.
Four should be normally fitted to capacitors weighing more than 0.75kg.

3. RATINGS AND CHARACTERISTICS

Capacitance range	See Table 2
Capacitance tolerance	$\pm 5\%$, $\pm 10\%$ and $\pm 20\%$
Rated voltage	See Table 2.
Rated temperature	70 °C. and 100 °C. (See Table 2)
Tangent of loss angle	≤ 0.01
Insulation resistance	5000 Megohms divided by nominal capacitance in microfarads or 25 000 Megohms whichever is the smaller.
Voltage proof	Twice the working voltage at 70 °C.
Climatic category	40/100/56

Values of Capacitance and Voltage Related to Case Size and Weight.

Capacitance μF	Voltage Ratings (see note 1)			Case Size Style CP10/CP11	Weight Approx kg
	d.c. at 70 °C.	d.c. at 100 °C.	a.c. @ 70 °C. see notes B and C		
0.05	10 000	6600	1000	P	0.64
0.1	1500	1000	350	D	0.09
	2500	1700	350	GA	0.18
	5000	3300	600	L	0.41
	7500	5000	600	P	0.64
	10 000	6600	600	SB	1.00
0.25	1000	650	300	D	0.09
	1500	1000	350	E	0.11
	2500	1700	350	JA	0.23
	5000	3300	600	P	0.64
	7500	5000	600	SB	1.00
	10 000	6600	600	TB	2.00
0.5	1000	650	300	E	0.11
	1500	1000	350	H	0.23
	2500	1700	350	KA	0.28
	5000	3300	600	SB	1.00
	7500	5000	600	TB	2.00
	10 000	6600	600	UA	3.63
1.0	600	400	250	E	0.11
	800	550	250	F	0.14
	1000	650	300	H	0.20
	1500	1000	350	K	0.27
	2500	1700	350	NA	0.54
	5000	3300	600	TB	2.00
	7500	5000	600	UA	3.63
2.0	600	500	250	G	0.18
	800	550	250	J	0.23
	1000	650	300	K	0.27
	1500	1000	350	N	0.54
	2500	1700	350	SA	1.00
	5000	3300	600	UA	3.63
4.0	600	400	250	K	0.27
	800	550	250	M	0.36
	1000	650	300	M	0.36
	1500	1000	350	S	1.00
	2500	1700	350	TA	2.00
8.0	600	400	250	N	0.54
	800	550	250	R	0.68
	1000	650	300	S	1.00
	1500	1000	350	T	2.00
	2500	1700	350	U	3.63

NOTE A. Where the Working Voltage is composite, the sum of the d.c. and peak a.c. voltage must not exceed the rated d.c. voltage.

NOTE B. a.c. current. The current must not exceed 1 ampere for 350 volt rating or 2 amperes for 600 volt rating.

NOTE C. a.c. rating given is for 50/60 Hz. If other frequencies are used refer to manufacturer and in any case the 50 Hz VA rating must not be exceed

4. RELATED DOCUMENTS

GENERIC SPECIFICATION	CECC 30 000
SECTIONAL SPECIFICATION	CECC 31 600
BLANK DETAIL SPECIFICATION	CECC 31 601
SAMPLING PROCEDURES	IEC 410
BASIC ENVIRONMENTAL TESTING PROCEDURES IEC 68 SERIES	

5. MARKING

The following details selected from those listed in 1.4 of CECC 31 600 shall be marked on the capacitor.

1. Rated capacitance in μF and tolerance in percent.
2. Rated d.c. working voltage at 70 °C.
3. Category voltage and maximum category temperature.
4. Manufacturer's name.
5. Climatic category.
6. Manufacturer's type designation.
7. Week (or month) and year of manufacture.
8. Reference to this specification.

The capacitor shall be clearly marked with 1,2,3,4, and 7 and with as many as possible of the remaining items considered useful.

The package containing the capacitor(s) shall be clearly marked with all the information listed above.

Any additional marking shall be so applied that confusion does not arise.

6. ORDERING INFORMATION

Orders for components to this specification shall include the following minimum information.

- 1) Quantity of capacitors.
- 2) Style.
- 3) Detail specification number, issue, and date.
- 4) Rated capacitance and tolerance.
- 5) Rated voltage.
- 6) Quantity of fixing clamps.

Example. 1000 off CP.10-D CECC 31 601-001 ISSUE 1. JUNE 1983
0.1 $\mu\text{F} \pm 20\%$ 1500 V. d.c. with 2 fixing clamps.

7. QUALIFICATION APPROVAL AND QUALITY CONFORMANCE INSPECTION

For qualification approval testing and quality conformance inspection, the test schedule, severities and requirements given in the sectional specification, shall apply.

In addition Tables 4A and 4B specify the test severities and requirements.

The tests shall be performed in the order in which they appear in this schedule.

Capacitors submitted to tests marked 'D' shall not be accepted for release.

8. CERTIFIED TEST RECORDS

NOT REQUIRED.