

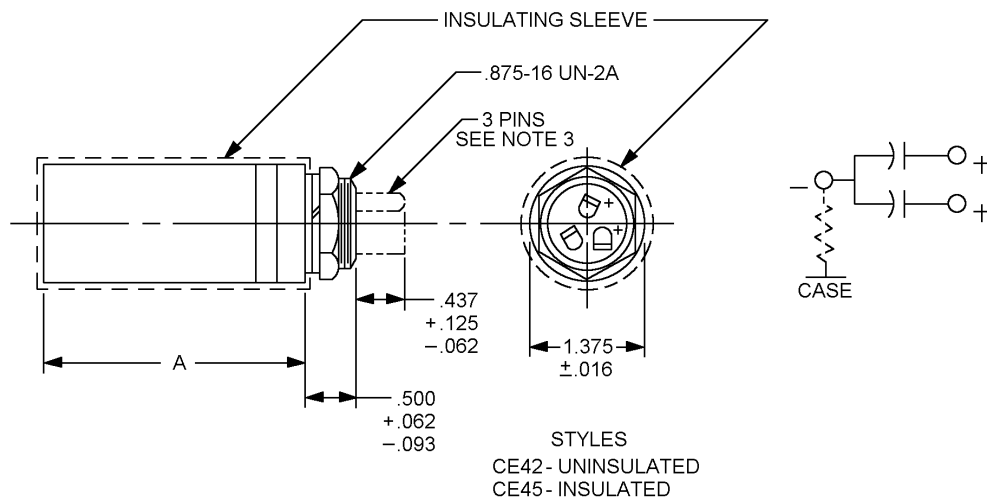
PERFORMANCE SPECIFICATION SHEET

CAPACITOR, FIXED, ELECTROLYTIC (DC, ALUMINUM, DRY ELECTROLYTE, POLARIZED), STYLES CE42 AND CE45

This specification sheet is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and [MIL-PRF-62](#).

Inactive for design
after 27 March 1979



Inches	mm
.016	.41
.062	1.57
.093	2.36
.125	3.18
.437	11.10
.500	12.70
1.375	34.93

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Shape and position of lugs optional.
4. Mounting nut and lockwasher shall be supplied with each capacitor (Family 3 (see [MIL-PRF-62](#))).
5. There is an indeterminate resistance between the metal case and the negative terminal.

FIGURE 1. Dimensions and configuration.



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TABLE I. Styles CE42 and CE45 capacitors.

Part or identifying number (PIN) <u>1/</u>	Capacitance <u>4/</u>	DC rated voltage per section	DC leakage current per section	Maximum impedance per section	Dissipation factor per section	Case dimension <u>2/ 3/</u>
						A
						± .062 (1.57)
	<u>μf</u>	<u>Volts</u>	<u>μa</u>	<u>Ohms</u>	<u>Percent</u>	<u>Inches (mm)</u>
CE4-C330J	33-33	150	106	266	12	2.250 (57.15)
CE4-C680J	68-68	150	151	129	12	2.250 (57.15)
CE4-C750J	75-75	150	160	117	12	2.250 (57.15)
CE4-C151J	150-150	150	225	59	12	3.000 (76.20)
CE4-C221J	220-220	150	273	40	12	3.750 (95.15)
CE4-C620K	62-62	200	166	142	12	2.250 (57.15)
CE4-C680K	68-68	200	175	129	12	2.500 (63.50)
CE4-C750K	75-75	200	183	117	12	2.500 (63.50)
CE4-C101K	100-100	200	211	88	12	2.750 (69.85)
CE4-C151K	150-150	200	260	49	12	3.250 (82.55)
CE4-C300M	30-30	250	129	293	12	2.250 (57.15)
CE4-C470M	47-47	250	166	187	12	2.250 (57.15)
CE4-C560M	56-56	250	178	157	12	2.500 (63.50)
CE4-C680M	68-68	250	195	129	12	2.750 (69.85)
CE4-C750M	75-75	250	206	117	12	3.000 (76.20)
CE4-C101M	100-100	250	237	88	12	3.250 (82.55)
CE4-C360N	36-36	300	156	244	12	2.250 (57.15)
CE4-C680N	68-68	300	214	129	12	3.250 (82.55)
CE4-C101N	100-100	300	260	88	12	4.250 (107.95)
CE4-C100P	10-10	350	88	880	12	2.250 (57.15)
CE4-C200P	20-20	350	125	440	12	2.250 (57.15)
CE4-C300P	30-30	350	154	293	12	2.250 (57.15)
CE4-C470P	47-47	350	192	187	12	2.750 (69.85)
CE4-C620P	62-62	350	222	142	12	3.250 (82.55)
CE4-C680P	68-68	350	232	129	12	3.750 (95.25)
CE4-C100Q	10-10t	400	94	1480	17	2.250 (57.15)
CE4-C150Q	15-15	400	116	986	17	2.250 (57.15)
CE4-C220Q	22-22	400	141	670	17	2.250 (57.15)
CE4-C330Q	33-33	400	172	450	17	3.000 (76.20)
CE4-C470Q	47-47	400	206	314	17	3.500 (88.90)
CE4-C100R	10-10	450	100	2200	17	2.250 (57.15)
CE4-C150R	15-15	450	123	1465	17	2.250 (57.15)
CE4-C220R	22-22	450	149	1000	17	2.750 (69.85)
CE4-C300R	30-30	450	174	733	17	3.500 (88.90)
CE4-C430R	43-43	450	208	512	17	3.750 (95.25)

1/ Complete PIN shall include an additional digit to complete style.

2/ Metric equivalents are given for general information only.

3/ The dimensions shown are for style CE42; for style CE45; add .062 inch (1.57 mm) ± .062 inch (1.57 mm) to the nominal dimension.

4/ There are two identical separate capacitors contained in each capacitor case.

REQUIREMENTS:

Dimensions and configuration: See [figure 1](#) and [table I](#).

Case type: Tubular, uninsulated (CE42) and insulated (CE45).

Capacitance value: See [table I](#).

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Capacitance tolerance:

At 200 volts, dc rated, and above: -10, +50 percent.

At 150 volts, dc rated, and less: -10, +75 percent

Operating temperature range: -40°C to +85°C.

DC leakage (DCL): See [table I](#).

Dissipation factor (DF): See [table I](#).

Terminal strength: Test conditions A, B, and E of [MIL-STD-202-211](#) as specified in [MIL-PRF-62](#).

Thermal shock and immersion:

Thermal shock: In accordance with [MIL-PRF-62](#).

Immersion: In accordance with [MIL-PRF-62](#).

Dielectric withstanding voltage (DWV)(insulating sleeves): In accordance with [MIL-PRF-62](#).

DCL: Not more than 150 percent of initial measurement.

Capacitance change: 5 percent.

DF: See [table I](#).

Corrosion: Not more than 10 percent.

Moisture resistance: In accordance with [MIL-PRF-62](#).

Insulation resistance (insulating sleeve): Not less than 100 megohms.

DWV (insulating sleeves): In accordance with [MIL-PRF-62](#).

DCL: Not more than 150 percent of initial requirement.

DC: See [table I](#).

Corrosion: Not more than 10 percent.

Stability at low and high temperature: In accordance with [MIL-PRF-62](#).

Step 1 (at + 25°C).

DCL: See [table I](#).

Capacitance: See [table I](#).

DF: See [table I](#).

Step 2 (at -40°C):

Impedance - See [table I](#).

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Step 3 (at +25°C):

DCL: See [table I](#).

Capacitance: ± 5 percent of initial value.

DF: See [table I](#).

Step 4 (at +85°C):

DCL: Not more than 10 times initial value, or meet initial +25°C requirement.

Capacitance - ± 20 percent of initial value.

DF: See [table I](#).

Step 5 (at +25°C):

DCL: See [table I](#).

Capacitance - ± 5 percent of initial value.

DF: See [table I](#).

Surge voltage: In accordance with [MIL-PRF-62](#).

DCL: See [table I](#).

Capacitance change: 6 percent.

DF: See [table I](#).

Vent: Not applicable.

Life: In accordance with [MIL-PRF-62](#).

DCL: See [table I](#).

Capacitance change:

100 volts, dc rated, and less: -20, + 15 percent.

DC rated voltage above 100 volts: ± 15 percent.

DF: Meet the initial requirement or not exceed 150 percent of the initial measurement.

Shelf life: In accordance with [MIL-PRF-62](#).

Build factor: Not more than 4.0.

Shelf factor: Not more than 3.0.

DCL: Not more than 150 percent of initial value.

Capacitance change: 6 percent.

DF: Not more than 175 percent of initial requirement.

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Application data:

All capacitors shall withstand an rms ripple current at 120 Hz and +85°C as determined from the formula:

$$I_r = k\sqrt{C}$$

Where:

I_r = rms ripple current in milliamps.

C = normal capacitance in microfarads per section.

k = 50 for units rated at 150 and 200 volts dc.

= 35 for units rated at 250 to 350 volts dc, incl.

= 30 for units rated at 400 to 450 volts dc.

Supersession data: See [table II](#):

TABLE II. Supersession data.

Superseded insulated PIN: M62/07-	Superseded uninsulated PIN: M62/07-	Recommended replacement PIN (style CE42 or CE45)	Superseded insulated PIN: M62/07-	Superseded uninsulated PIN: M62/07-	Recommended replacement PIN (style CE42 or CE45)
001	078	CE4-C100P	027	104	CE4-C101M
002	079	CE4-C300M	028	105	CE4-C100P
003	080	CE4-C330J	029	106	CE4-C300P
004	081	CE4-C470M	030	107	CE4-C360N
005	082	CE4-C680J	031	108	CE4-C470P
006	083	CE4-C750J	032	109	CE4-C620P
007	084	CE4-C101K	033	110	CE4-C680N
008	085	CE4-C151J	034	111	CE4-C101N
009	086	CE4-C221J	035	112	CE4-C100P
010	087	CE4-C100P	036	113	CE4-C200P
011	088	CE4-C300M	037	114	CE4-C300P
012	089	CE4-C360N	038	115	CE4-C470P
013	090	CE4-C470M	039	116	CE4-C470P
014	091	CE4-C470M	040	117	CE4-C620P
015	092	CE4-C620K	041	118	CE4-C680P
016	093	CE4-C680K	042	119	CE4-C100Q
017	094	CE4-C750K	043	120	CE4-C150Q
018	095	CE4-C101K	044	121	CE4-C220Q
019	096	CE4-C151K	045	122	CE4-C330Q
020	097	CE4-C100P	046	123	CE4-C470Q
021	098	CE4-C300M	047	124	CE4-C100R
022	099	CE4-C300M	048	125	CE4-C150R
023	100	CE4-C470M	049	126	CE4-C220R
024	101	CE4-C560M	050	127	CE4-C300R
025	102	CE4-C680M	051	128	CE4-C430R
026	103	CE4-C750M			

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Referenced documents. In addition to [MIL-PRF-62](#), this document references the following:

[MIL-STD-202-211](#)

Changes from previous issue: Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:

Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5910-2020-022)

Review activities:

Army - AT, AV, CR4, MI
Navy - AS, MC, OS
Air Force - 19

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using ASSIST Online database at <https://assist.dla.mil/>.