

K50-92 OTK

ALUMINUM ELECTROLYTIC CAPACITOR

elecond-market@elcudm.ru

+7 (34147) 2-99-89



EVAYA.673541.049 TU



Axial leaded capacitors. Polar. Sealed. Isolated and non-isolated. Capacitors are suitable for application in direct current, ripple current and pulse current circuits in secondary power supplies and converter equipment. Capacitors are available in all-climate and temperate/cold climate version. This type can substitute domestic capacitors K50-15, K50-20, K50-24, K50-29, K50-76 and foreign counterparts 138 AML, 118 AHT, 119 AHT produced by Vishay, BC components etc.

MAIN PARAMETERS

Name	Value
Rated voltage, V	6.3...450
Rated capacitance, μF	1...4 700
Capacitance tolerance (25°C, 50 Hz), %	+50...-20; ± 20
Maximum operating temperature Tenv, °C	+100
Minimal operating temperature Tenv, °C	-60

CAPASITOR PHYSICAL CONFIGURATION

Fig.1

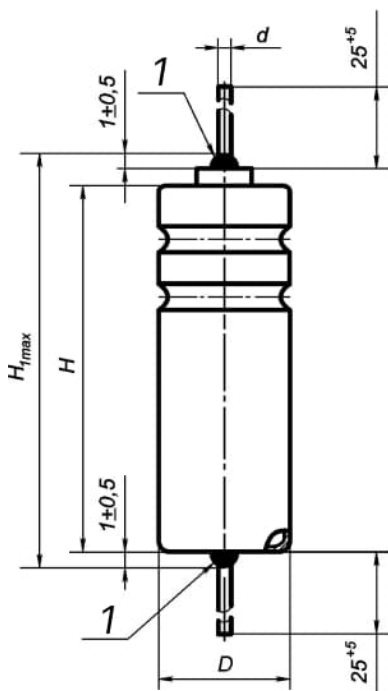


Fig.2

(Also see fig.1)

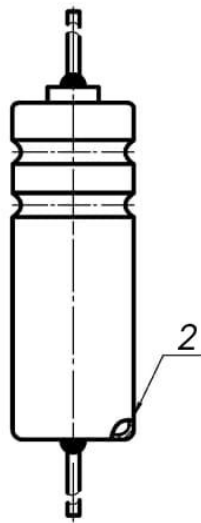


Fig.3

(Also see fig.1)

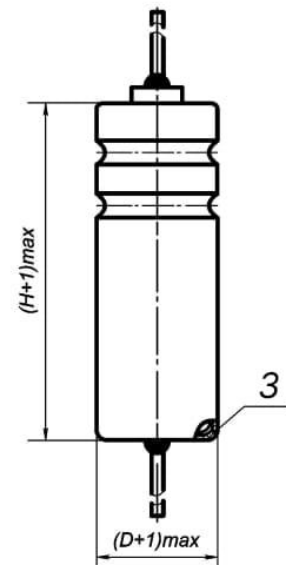


Fig.4

(Also see fig.1 и 3)

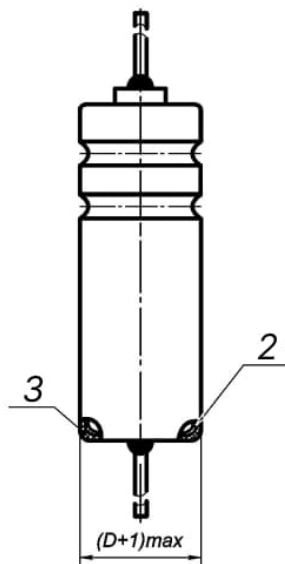
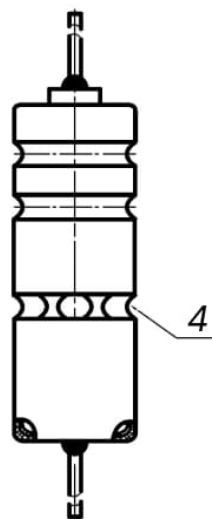


Fig.5

(Also see fig.1 и 4)



- 1 – Enamel coating;
- 2 – Enamel coating for all-climate version capacitors;
- 3 – Isolation slave;
- 4 – Crimping (Additional zig)

Figure	Climate version	Enamel coating	Isolation slave
1,5	temperate/cold climate version	-	-
2,5	all-climate version	+	-
3,5	temperate/cold climate version	-	+
4,5	all-climate version	+	+

D	L _{1max}	d±0.1
6	L+5	0.8
8.5	L+5	0.8
12	L+7	0.8
16	L+7	0.8
21	L+7	1.0
25	L+7	1.0

CAPACITORS OVERALL DIMENSIONS AND MASS

U _R , V	6.3	16	25	40	63	100	160	315	350	450
C _R , μF	DxL, mm mass, g									
1							<u>6x17</u> 1.5			
2.2						<u>6x17</u> 1.5	<u>6x22</u> 2.0		<u>12x22</u> 5.5	<u>12x22</u> 5.5
4.7					<u>6x17</u> 1.5	<u>6x22</u> 2.0	<u>8.5x22</u> 3.2	<u>12x22</u> 5.5	<u>12x27</u> 6.5	<u>12x32</u> 7.5
10			<u>6x17</u> 1.5		<u>6x22</u> 2.0	<u>6x27</u> 2.5	<u>8.5x27</u> 4.0	<u>12x27</u> 6.5	<u>12x42</u> 9.5	<u>16x28</u> 12.5
22		<u>6x17</u> 1.5	<u>6x22</u> 2.0		<u>6x27</u> 2.5	<u>8.5x27</u> 4.0	<u>12x27</u> 6.5	<u>12x42</u> 9.5	<u>16x38</u> 20.0	<u>16x48</u> 22.5
47	<u>6x17</u> 1.5	<u>6x22</u> 2.0	<u>6x27</u> 2.5	<u>6x27</u> 2.5	<u>8.5x22</u> 3.2	<u>8.5x37</u> 5.0	<u>12x42</u> 9.5	<u>16x48</u> 22.5	<u>16x38</u> 20.0	<u>21x38</u> 36.0
100	<u>6x22</u> 2.0	<u>6x27</u> 2.5	<u>8.5x22</u> 3.2	<u>12x22</u> 5.5	<u>8.5x32</u> 4.5	<u>12x37</u> 8.5	<u>16x37</u> 20.0	<u>21x38</u> 36.0	<u>21x42</u> 41.0	<u>21x45</u> 43.0
220	<u>6x27</u> 2.5	<u>8.5x27</u> 4.0	<u>8.5x32</u> 4.5	<u>8.5x35</u> 5.0	<u>12x32</u> 7.5					
470	<u>8.5x27</u> 4.0	<u>8.5x37</u> 5.0	<u>12x37</u> 8.5	<u>12x37</u> 8.5	<u>16x38</u> 20.0					
1 000	<u>8.5x37</u> 5.0	<u>12x42</u> 9.5	<u>16x33</u> 15.0	<u>21x33</u> 32.5	<u>16x53</u> 25.0					
2 200	<u>12x42</u> 9.5	<u>16x38</u> 20.0	<u>16x48</u> 22.5	<u>21x38</u> 36.0	<u>25x45</u> 52.5					
4 700	<u>16x38</u> 20.0				<u>25x50</u> 55					

CAPACITOR ELECTRIC PARAMETERS VALUE WHEN DELIVERED

U_R, V	$C_R, \mu F$	$tg \delta, \%, 25^\circ C, 50 Hz, max$	$I_{LEAK}, \mu A, max$	$Z^*, Ohm, 25^\circ C, max$	$U_F, V, 100^\circ C, 50 Hz, max$
6.3	47	20	16	3	0.83
6.3	100	20	23	1.7	0.83
6.3	220	20	24	0.8	0.83
6.3	470	20	40	0.3	0.83
6.3	1000	20	73	0.3	0.62
6.3	2200	20	235	0.15	0.62
6.3	4700	20	344	0.1	0.33
16	22	20	17	2.5	2.11
16	47	20	25	2	1.58
16	100	20	26	1	1.58
16	220	20	45	0.4	1.58
16	470	20	85	0.3	1.27
16	1000	20	253	0.25	1.06
16	2200	20	375	0.1	0.63
25	10	20	15	4	3.3
25	22	20	21	1.6	2.48
25	47	20	22	1	2.48
25	100	20	35	0.5	2.48
25	220	20	65	0.3	1.98
25	470	20	217	0.25	1.32
25	1000	20	316	0.25	0.99
25	2200	20	469	0.1	0.99
40	47	20	29	4.7	2.64
40	100	20	50	4.0	2.11
40	220	20	98	3.0	1.06
40	470	20	274	2.3	1.06
40	1000	20	400	1.5	1.06
40	2200	20	593	1.02	1.06
63	4.7	20	16	3.5	6.24
63	10	20	23	3	4.16
63	22	20	24	1.2	3.33
63	47	20	40	0.6	2.49
63	100	20	73	0.4	2.49
63	220	20	235	0.25	2.08

U_R, V	$C_R, \mu F$	$tg \delta, \%, 25^\circ C, 50 Hz, max$	$I_{LEAK}, \mu A, max$	$Z^*, Ohm, 25^\circ C, max$	$U_F, V, 100^\circ C, 50 Hz, max$
63	470	20	344	0.25	1.66
63	1000	20	502	0.2	1.25
63	2200	20	745	0.1	0.99
63	2200	20	745	0.1	0.99
100	2.2	15	14	13	9.9
100	4.7	15	19	8	7.92
100	10	15	30	5	6.6
100	22	15	32	3	5.28
100	47	15	57	0.8	3.96
100	100	15	110	0.7	3.96
160	1	10	25	55	10.56
160	2.2	10	31	25	10.56
160	4.7	10	43	12.5	10.56
160	10	10	48	7	8.45
160	22	10	106	4	8.45
160	47	10	226	2	6.34
160	100	10	480	1.95	4.71
315	4.7	10	42	15	15.84
315	10	10	90	7	15.84
315	22	10	198	4	13
315	47	10	423	2	9.54
315	100	10	945	1.95	7.01
350	2.2	10	43	30	18.48
350	4.7	10	49	20	18.48
350	10	10	105	7	17.92
350	22	10	231	5	13
350	47	10	494	4.9	9.54
350	100	10	1050	4.85	7.01
450	2.2	10	50	35	23.76
450	4.7	10	63	20	20.79
450	10	10	135	15	17.92
450	22	10	297	6	13
450	47	10	635	5.9	9.54
450	100	10	1350	5.85	7.01

* Capacitor impedance Z is measured at frequency 100 kHz for capacitors $C_R \leq 1\ 000\ \mu F$, and at frequency 10 kHz for capacitors $C_R > 1\ 000\ \mu F$

CAPACITORS RELIABILITY

Reliability Operation modes	Minimal nonfailure operating time, t_{λ} , hours	Capacitor failure rate, λ , 1/hour, max
Maximum-permissible mode (U_R , $T_{env}=100\text{ }^{\circ}\text{C}$) for capacitors \varnothing 6 mm	1 000	10^{-4}
Maximum-permissible mode (U_R , $T_{env}=100\text{ }^{\circ}\text{C}$) for capacitors \varnothing 8.5; 12; 16 mm	1 500	10^{-4}
Light mode (U_R , $T_{env}=85\text{ }^{\circ}\text{C}$) for capacitors \varnothing 6 mm	2 000	5×10^{-5}
Light mode (U_R , $T_{env}=85\text{ }^{\circ}\text{C}$) for capacitors \varnothing 8.5; 12; 16 mm	3 000	3×10^{-5}
Light mode (U_R , $T_{env}=70\text{ }^{\circ}\text{C}$) for capacitors of all dimensions	7 500	2×10^{-5}
Light mode ($0.8U_R$, $T_{env}=100\text{ }^{\circ}\text{C}$) for capacitors of all dimensions	2 000	5×10^{-5}
Light mode * ((0.2-0.7) U_R , $T_{env}=70\text{ }^{\circ}\text{C}$) for capacitors $U_R \leq 100\text{V}$	25 000	5×10^{-6}
Light mode * ((0.2-0.5) U_R , $T_{env}=70\text{ }^{\circ}\text{C}$) for capacitors $U_R > 100\text{V}$	25 000	5×10^{-6}
Light mode * ((0.2-0.6) U_R , $T_{env}=60\text{ }^{\circ}\text{C}$) for capacitors of all dimensions	90 000	10^{-6}
Light mode * ((0.2-0.5) U_R , $T_{env}=60\text{ }^{\circ}\text{C}$) for capacitors of all dimensions	150 000	10^{-6}
Storageability Gamma-rated time of capacitor storageability T_{cy} at $\gamma=95\%$, years, min	25	

* permissible voltage is minimum 0.8V

CODED SYMBOL FOR CAPACITORS (IDENTIFICATION NUMBER (PARTNUMBER))

CAPACITOR K50-92 – 6.3V – 47MF (±20)% – I – EVAYA.673541.049TU
(K50-92-B-476M-D6H17-PET-0-049-UHL)

1	2	3	4	5	6	7	8	9
Capacitor K50-92	6.3V	47μF	±20%	D=6mm	H=17mm	PET	EVAYA.673541.049TU	UHL
K50-92	B	476	M	D6	H17	PET-0	049	UHL

1. K50-92 - capacitor K50-92

2. Rated voltage code

Code	B	E	G	S	K	N	Q	X	T	U
U _R , V	6.3	16	25	40	63	100	160	315	350	450

3. Nominal capacity code

Code	105	225	475	106	226	476
C _R , μF	1	2.2	4.7	10	22	47

Code	107	227	477	108	228	478
C _R , μF	100	220	470	1000	2200	4700

4. Capacity approval code

Code	M	S
Admittance, %	±20	+50; -20

5. Condenser diameter code

Code	D6	D8Z5	D12	D16	D21	D25
Diameter, mm	6	8.5	12	16	21	25

6. Capacitor height code

Code	H17	H22	H27	H28	H32	H33	H35
Height, mm	17	22	27	28	32	33	35

Code	H37	H38	H42	H45	H48	H50	H53
Height, mm	37	38	42	45	48	50	53

7. Isolation Code

Code	Decryption
PET	Isolated, packed in a box for manual assembly of equipment
PET-0	Uninsulated, packed in a box for manual assembly of equipment

8. Code TU

Code	TU designation
049	EVAYA.673541.049 TU

9. Climatic modification code

Code	Decryption
B	Capacitors are designed for indoor installation with the requirements of resistance to high air humidity of 98% at a temperature of 35°C (all-climatic version B)
UHL	Capacitors are designed for indoor installation with requirements for resistance to high air humidity of 98% at a temperature of 25°C (climatic version UHL)

EXAMPLE OF REFERENCE DESIGNATION FOR ORDERING

CAPACITOR K50-92 – 6.3V – 47 $\mu\Phi$ (+50 -20)% B EVAYA.673541.049 TU
 CAPACITOR K50-92 – 6.3V – 47 $\mu\Phi$ (+50 -20)% EVAYA.673541.049 TU
 CAPACITOR K50-92 – 6.3V – 47 $\mu\Phi$ \pm 20% B EVAYA.673541.049 TU
 CAPACITOR K50-92 – 6.3V – 47 $\mu\Phi$ \pm 20% EVAYA.673541.049 TU
 CAPACITOR K50-92 – 63V – 2 200 $\mu\Phi$ (+50 -20)% (25 \times 45) EVAYA.673541.049 TU
 CAPACITOR K50-92 – 63V – 2 200 $\mu\Phi$ (+50 -20)% (25 \times 45) – I EVAYA.673541.049 TU
 CAPACITOR K50-92 – 63V – 2 200 $\mu\Phi$ (+50 -20)% (25 \times 45) – I – B EVAYA.673541.049 TU
 CAPACITOR K50-92 – 63V – 2 200 $\mu\Phi$ \pm 20% (25 \times 45) EVAYA.673541.049 TU
 CAPACITOR K50-92a – 40V – 100 $\mu\Phi$ \pm 20% EVAYA.673541.049 TU
 CAPACITOR K50-92a – 40V – 100 $\mu\Phi$ \pm 20% – I EVAYA.673541.049 TU
 CAPACITOR K50-92a – 40V – 100 $\mu\Phi$ \pm 20% – I – B EVAYA.673541.049 TU

- character “B” – capacitors in all-climate version
- without character “B” – capacitors in cold climate version
- character “I” – for isolated capacitors
- without character “I” – for non isolated capacitors
- character “a” depending on manufacturing option

