



### 2 Axial Capacitors Type A



#### Features

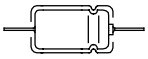
- polarized
- switch proofed
- welded axial leads
- high reliability
- high ripple current
- all contacts welded

#### Applications

- standard- and switch mode power supplies
- computer
- telecommunications
- general industrial
- consumer - electronic

#### Quick reference

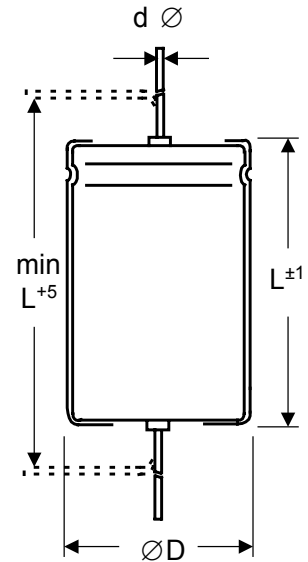
	$U_R \leq 100 \text{ V}$	$U_R > 100 \text{ V}$
Temperature range	- 40°C ... + 105°C	- 40°C ... + 85°C
Tolerance	± 20 %	
Max. reverse voltage	2V	
Useful life	see diagram useful life S. 13	
Leakage current 5 min @ $U_R$	$0,008 * C [\mu\text{F}] * U [\text{V}] + 4\mu\text{A} [\mu\text{A}]$	
Leakage current 1 h @ $U_R$	$0,15 * \text{leakage current 5 min @ } U_R$	
Specs	DIN 41332 IEC 384 - 4	
Insulation $\varnothing$ up to 25 mm	polyesterfilm : voltage proof $\geq 1000 \text{ V AC}$	
Insulation $\varnothing$ more than 25 mm	shrink - on sleeve : voltage proof $\geq 2500 \text{ V AC}$	
$\varnothing$ leads	up to 25 mm $\varnothing$ : 0.8mm ; more than 25 mm $\varnothing$ : 1.0 mm	



## Aluminium Electrolytic Capacitors

### 2.1 Mechanical Data

D	d
up to 25 mm	0,8 mm
more than 25 mm	1,0 mm



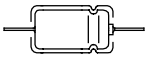
**D x L**

Capacitance [ $\mu$ F]	Rated voltage [V]									
	16	25	40	63	100	160	250	350	450	500
4,7									10 x 30	
10								10 x 30	12 x 30	14 x 30
15							10 x 30	10 x 30	14 x 30	16 x 39
22							10 x 30	12 x 30	16 x 30	18 x 39
33						10 x 30	12 x 30	14 x 37	18 x 39	21 x 36
47						10 x 30	14 x 30	16 x 39	21 x 36	25 x 38
100					10 x 30	16 x 30	18 x 39	25 x 38	25 x 49	30 x 49
220				10 x 30	14 x 30	18 x 39	25 x 38	25 x 49	30 x 49	
470			10 x 30	14 x 30	16 x 39	25 x 49	30 x 49	35 x 49		
1000	10 x 30	10 x 30	14 x 30	16 x 39	25 x 38	35 x 49				
2200	14 x 30	14 x 37	16 x 39	25 x 38	30 x 49					
3300	16 x 39	16 x 39	21 x 36	25 x 49	35 x 49					
4700	16 x 39	18 x 39	25 x 38	25 x 49	35 x 66					
6800	21 x 36	25 x 38	25 x 49	35 x 49						
10000	25 x 38	25 x 49	30 x 49	35 x 66						



### 2.2 Standard Values Type A

U <sub>R</sub> [V]	C <sub>R</sub> [μF]	Case size Ø x L [mm]	ESR <sub>100 Hz</sub> 20°C typ. [mΩ]	ESR <sub>100Hz</sub> 20°C max. [mΩ]	tan δ <sub>100Hz</sub> 20°C max. [%]	Z <sub>10KHz</sub> 20°C max. [mΩ]	Rated ripple current 100Hz		Order code A...
							85°C [A]	105°C [A]	
16	1000	10 x 30	220	330	21	220		0,6	...10201610030
16	2200	14 x 30	130	195	27	130		1,0	...22201614030
16	3300	16 x 39	90	135	28	90		1,4	...33201616039
16	4700	16 x 39	60	90	29	60		1,7	...47201616039
16	6800	21 x 36	50	75	32	50		2,2	...68201621036
16	10000	25 x 38	40	60	38	40		2,6	...10301625038
25	1000	10 x 30	180	270	17	180		0,7	...10202510030
25	2200	14 x 37	120	180	25	120		1,1	...22202514037
25	3300	16 x 39	85	127	26	85		1,5	...33202516039
25	4700	18 x 39	60	90	27	60		1,9	...47202518039
25	6800	25 x 38	50	75	32	50		2,4	...68202525038
25	10000	25 x 49	35	52	33	35		3,2	...10302525049
40	470	10 x 30	220	330	10	220		0,6	...47104010030
40	1000	14 x 30	150	225	14	150		0,9	...10204014030
40	2200	16 x 39	100	150	21	100		1,3	...22204016039
40	3300	21 x 36	85	127	26	85		1,7	...33204021036
40	4700	25 x 38	60	90	27	60		2,2	...47204025038
40	6800	25 x 49	50	75	28	50		2,7	...68204025049
40	10000	30 x 49	30	45	28	30		3,7	...10304030049
63	220	10 x 30	400	600	8	400		0,5	...22106310030
63	470	14 x 30	200	300	9	200		0,8	...47106314030
63	1000	16 x 39	120	180	11	120		1,2	...10206316039
63	2200	25 x 38	95	142	22	95		1,7	...22206325038
63	3300	25 x 49	50	75	16	50		2,7	...33206325049
63	4700	25 x 49	40	60	18	40		3,0	...47206325049
63	6800	35 x 49	35	52	29	35		3,8	...68206335049
63	10000	35 x 66	30	45	20	30		4,6	...10306335066
100	100	10 x 30	750	1125	7	750		0,3	...10110010030
100	220	14 x 30	350	525	7	350		0,6	...22110014030
100	470	16 x 39	150	225	7	150		1,1	...47110016039
100	1000	25 x 38	110	165	8	110		1,6	...10210025038
100	2200	30 x 49	60	90	10	60		2,6	...22210030049
100	3300	35 x 49	50	75	12	50		3,2	...33210035049
100	4700	35 x 66	30	45	13	30		4,6	...47210035066
160	33	10 x 30	3100	4650	6	3100	0,2		...33016010030
160	47	10 x 30	1950	2925	6	1950	0,2		...47016010030
160	100	16 x 30	980	1470	6	980	0,4		...10116016030
160	220	18 x 39	470	705	6	470	0,7		...22116018039
160	470	25 x 49	150	225	6	150	1,5		...47116025049
160	1000	35 x 49	100	150	6	100	2,2		...10216035049
250	22	10 x 30	4300	6450	6	4300	0,1		...22025010030
250	33	12 x 30	2400	3600	7	2400	0,2		...33025012030
250	47	14 x 30	1600	2400	7	1600	0,3		...47025014030
250	100	18 x 39	750	1125	7	750	0,5		...10125018039
250	220	25 x 38	180	270	7	180	1,2		...22125025038
250	470	30 x 49	130	195	7	130	1,8		...47125030049



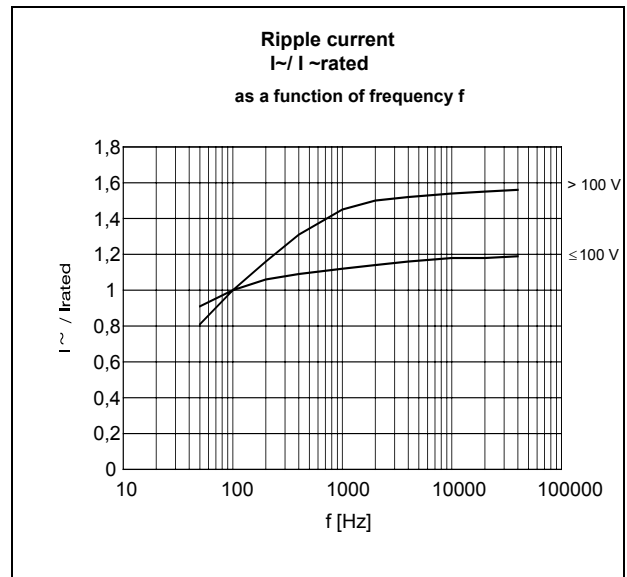
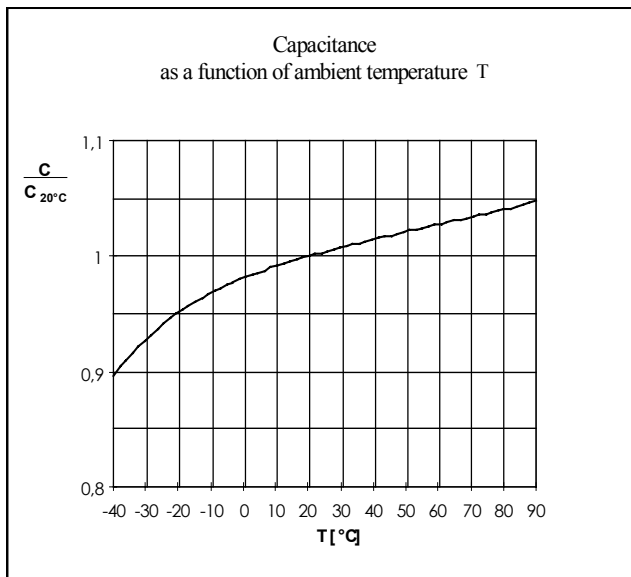
# Aluminium Electrolytic Capacitors

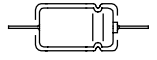
## Standard Values Type A

U <sub>R</sub> [V]	C <sub>R</sub> [μF]	Case size ∅ x L [mm]	ESR <sub>100 Hz</sub>	ESR <sub>100Hz</sub>	tan δ <sub>100Hz</sub>	Z <sub>10KHz</sub>	Rated ripple current 100Hz		Order code A...
			20°C typ. [mΩ]	20°C max. [mΩ]	20°C max. [%]	20°C max. [mΩ]	85°C [A]	105°C [A]	
350	10	10 x 30	8800	13200	6	8800	0,1		...10035010030
350	15	10 x 30	7000	10500	6	7000	0,1		...15035010030
350	22	12 x 30	2600	3900	6	2600	0,2		...22035012030
350	33	14 x 37	1500	2250	6	1500	0,3		...33035014037
350	47	16 x 39	1300	1950	6	1300	0,4		...47035016039
350	100	25 x 38	580	870	6	580	0,7		...10135025038
350	220	25 x 49	400	600	6	400	0,9		...22135025049
350	470	35 x 49	120	180	6	120	2,0		...47135035049
450	4,7	10 x 30	10000	15000	6	10000	0,1		...4,745010030
450	10	12 x 30	7000	10500	6	7000	0,1		...10045012030
450	15	14 x 30	4800	7200	6	4800	0,2		...15045014030
450	22	16 x 30	4500	6750	6	4500	0,2		...22045016030
450	33	18 x 39	3800	5700	6	3800	0,2		...33045018039
450	47	21 x 36	1300	1950	6	1300	0,4		...47045021036
450	100	25 x 49	700	1050	6	700	0,7		...10145025049
450	220	30 x 49	400	600	6	400	1,0		...22145030049
500	10	14 x 30	7000	10500	6	7000	0,1		...10050014030
500	15	16 x 39	4800	7200	6	4800	0,2		...15050016039
500	22	18 x 39	4500	6750	6	4500	0,2		...22050018039
500	33	21 x 36	3800	5700	6	3800	0,2		...33050021036
500	47	25 x 38	1800	2700	6	1800	0,4		...47050025038
500	100	30 x 49	800	1200	6	800	0,7		...10150030049

We produce also customer specific capacitors ( case size / voltage / capacitance ) at reasonable prices !  
Please contact us for more information.

## 2.3 Technical Data Type A





### 2.3.1 Useful Life Type A

