



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

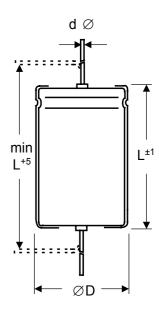
	$U_R \le 100 \text{ V}$	$U_R > 100 \text{ V}$			
Temperature range	- 40°C + 105°C	- 40°C + 85°C			
Tolerance	± 20 %				
Max. reverse voltage	2V				
Useful life	see diagram useful life S. 13				
Leakage current 5 min @ U _R	$0.008 * C [\mu F] * U [V] + 4\mu A [\mu A]$				
Leakage current 1 h @ U _R	urrent 5 min @ U _R				
Specs	DIN 41332 IEC 384 - 4				
Insulation Ø up to 25 mm	polyesterfilm : voltage proof ≥ 1000 V AC				
Insulation Ø more than 25 mm	shrink - on sleeve : voltage proof $\geq 2500 \text{ V AC}$				
Ø leads	up to 25 mm \varnothing : 0.8mm ; more than 25 mm \varnothing : 1.0 mm				



Aluminium Electrolytic Capacitors

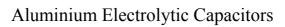
2.1 Mechanical Data

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



D x L

Capacitance	Rated voltage [V]									
[µF]	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

UR	C_R	Case size	ESR _{100 Hz}	ESR _{100Hz}	$\tan \delta_{100Hz}$	Z _{10KHz}	Rated ripple current 100Hz		Order code
		Ø x L	20°C typ.	20°C max.	20°C max.	20°C max.	85°C	105°C	
[V]	[µF]	[mm]	$[m\Omega]$	$[m\Omega]$	[%]	$[m\Omega]$	[A]	[A]	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



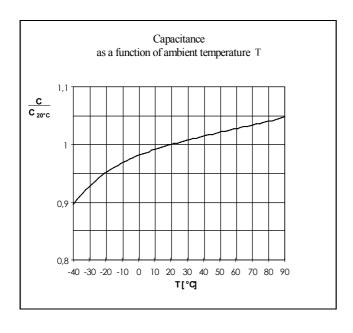
Aluminium Electrolytic Capacitors

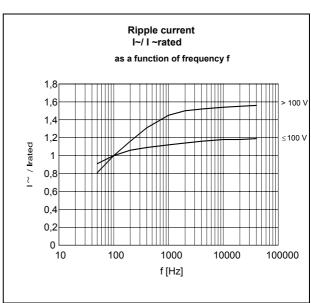
Standard Values Type A

UR	C_R	Case size	ESR _{100 Hz}	ESR _{100Hz}	tan δ _{100Hz}	Z _{10KHz}		ole current OHz	Order code
		Ø x L	20°C typ.	20°C max.	20°C max.	20°C max.	85°C	105°C	
[V]	[µF]	[mm]	$[m\Omega]$	$[m\Omega]$	[%]	$[m\Omega]$	[A]	[A]	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

