

## 8 Soldering Lug Capacitors Type LF



### Features

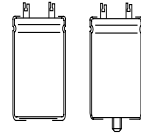
- high capacitance
- long useful life
- high ripple currents
- LFA clamp mounted
- LFB stud mounted

### Applications

- standard and switched mode power supplies
- computer
- telecommunication
- industrial electronic

### Quick reference

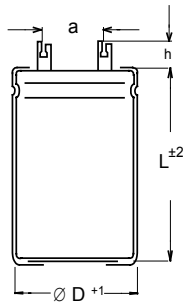
	$U_R \leq 100 \text{ V}$	$U_R > 100 \text{ V}$
Temperature range	- 40°C - + 105°C	- 40°C - + 85°C
Tolerance	+ 30% -10%	
Max. reverse voltage	2V	
Useful life	see diagram Useful Life p. 50	
Leakage current 5 min @ $U_R$	$0,008 * C [\mu\text{F}] * U [\text{V}] + 4\mu\text{A} [\mu\text{A}]$	
Leakage current 1 h @ $U_R$	$0,12 * \text{leakage current 5 min @ } U_R$	
Specs.	DIN 41332 IEC 384 - 4	
Insulation	shrink - on sleeve voltage proof $\geq 2500 \text{ V AC}$	
Content of supply	LFB with mounting nut	
Terminals	soldering lugs	



### 8.1 Mechanical Data Type LF

#### LFA

clamp mounted

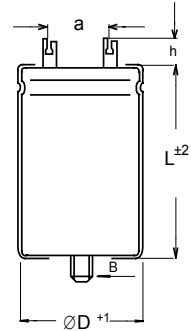


D [mm]	h [mm]	a [mm]	B
25	10	10	M 8 x 12
30	10	10	M 8 x 12
35	10	10	M 8 x 12
40	10	20	M 8 x 12
50	10	20	M 12 x 16

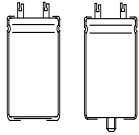
	thread	max. tightening torque
mounting	M 8	4 Nm
mounting	M 12	10 Nm

#### LFB

stud mounted



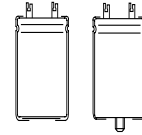
Capacitance [μF]	Rated voltage [V]										
	16	25	40	63	100	160	250	350	400	450	500
47									25 x 36	25 x 36	30 x 50
68								25 x 36	25 x 36	30 x 36	30 x 50
100							25 x 36	30 x 36	30 x 36	30 x 36	35 x 50
150							30 x 36	30 x 50	30 x 50	35 x 50	35 x 66
220						25 x 36	30 x 36	35 x 50	35 x 50	35 x 66	35 x 66
330						30 x 36	30 x 50	35 x 66	35 x 66	40 x 66	
470					25 x 36	30 x 50	35 x 50	40 x 66	40 x 66	40 x 66	
680					30 x 36	35 x 50	35 x 50	40 x 66	50 x 66		
1000				25 x 36	30 x 36	35 x 50	40 x 66	50 x 66			
1500				25 x 36	30 x 50						
2200			25 x 36	30 x 36	35 x 50						
3300			30 x 36	30 x 50	35 x 66						
4700		25 x 36	30 x 36	35 x 50	40 x 66						
6800		25 x 36	30 x 50	35 x 66	50 x 66						
10000	30 x 36	30 x 36	35 x 50	35 x 66	50 x 95						
15000	30 x 50	30 x 50	35 x 66	40 x 66							
22000	35 x 50	35 x 50	40 x 66								
33000	35 x 66	35 x 66									
47000	35 x 66	40 x 66									



## Aluminium Electrolytic Capacitors

### 8.2 Standard Values Type LF

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 LFA... LFB...
			20°C typ. [mΩ]	20°C max. [mΩ]	20°C max. [%]	20°C max. [mΩ]	85°C [A]	105°C [A]	
16	10000	30 x 36	25	38	30	40		3,6	...10301630036
16	15000	30 x 50	22	33	31	30		4,4	...15301630050
16	22000	35 x 50	20	30	41	30		5,0	...22301635050
16	33000	35 x 66	15	23	45	20		6,5	...33301635066
16	47000	35 x 66	12	18	45	20		7,2	...47301635066
25	4700	25 x 36	20	30	20	30		3,7	...47202525036
25	6800	25 x 36	19	29	22	30		3,8	...68202525036
25	10000	30 x 36	17	26	25	30		4,4	...10302530036
25	15000	30 x 50	16	24	27	30		5,1	...15302530050
25	22000	35 x 50	15	23	31	20		5,8	...22302535050
25	33000	35 x 66	12	18	31	20		7,2	...33302535066
25	47000	40 x 66	11	17	32	20		7,9	...47302540066
40	2200	25 x 36	60	90	12	80		2,2	...22204025036
40	3300	30 x 36	50	75	12	70		2,6	...33204030036
40	4700	30 x 36	40	60	14	60		2,9	...47204030036
40	6800	30 x 50	30	45	18	40		3,7	...68204030050
40	10000	35 x 50	25	38	20	40		4,5	...10304035050
40	15000	35 x 66	19	29	22	30		5,8	...15304035066
40	22000	40 x 66	17	26	25	30		6,4	...22304040066
50	2200	25 x 36	60	90	12	80		2,2	...22205025036
50	3300	30 x 36	38	57	12	50		2,9	...33205030036
50	4700	30 x 50	35	53	15	50		3,5	...47205030050
50	6800	35 x 50	25	38	16	40		4,5	...68205035050
50	10000	35 x 66	20	30	19	30		5,6	...10305035066
50	15000	40 x 66	17	26	24	30		6,4	...15305040066
63	1000	25 x 36	90	135	8	120		1,8	...10206325036
63	1500	25 x 36	60	90	8	80		2,2	...15206325036
63	2200	30 x 36	50	75	10	70		2,6	...22206330036
63	3300	30 x 50	43	65	13	60		3,1	...33206330050
63	4700	35 x 50	32	48	15	50		4,0	...47206335050
63	6800	35 x 66	30	45	16	40		4,6	...68206335066
63	10000	35 x 66	21	32	16	30		5,5	...10306335066
63	15000	40 x 66	15	23	16	20		6,8	...15306340066
100	470	25 x 36	190	285	8	260		1,2	...47110025036
100	680	30 x 36	130	195	8	180		1,6	...68110030036
100	1000	30 x 36	80	120	8	110		2,0	...10210030036
100	1500	30 x 50	55	83	8	80		2,8	...15210030050
100	2200	35 x 50	45	68	9	60		3,4	...22210035050
100	3300	35 x 66	35	53	11	50		4,2	...33210035066
100	4700	40 x 66	31	47	14	50		4,7	...47210040066
100	6800	50 x 66	30	45	15	40		5,2	...68210050066
100	10000	50 x 95	27	41	15	40		6,2	...10310050095

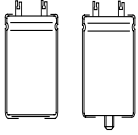


### Standard Values Type LF

U <sub>R</sub> [V]	C <sub>R</sub> [μF]	Case size Ø 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
			20°C typ. [mΩ]	20°C max. [mΩ]	20°C max. [%]	20°C max. [mΩ]	85°C [A]	105°C [A]	LFA... LFB...
160	220	25 x 36	400	600	8	530	0,8		...22116025036
160	330	30 x 36	267	400	8	360	1,1		...33116030036
160	470	30 x 50	200	300	9	270	1,4		...47116030050
160	680	35 x 50	133	200	9	180	2,0		...68116035050
160	1000	35 x 50	93	140	9	130	2,3		...10216035050
250	100	25 x 36	493	740	8	680	0,8		...10125025036
250	150	30 x 36	440	660	8	590	0,9		...15125030036
250	220	30 x 36	347	520	8	470	1,0		...22125030036
250	330	30 x 50	227	340	8	310	1,4		...33125030050
250	470	35 x 50	167	250	8	230	1,7		...47125035050
250	680	35 x 50	140	210	8	190	1,9		...68125035050
250	1000	40 x 66	80	120	9	110	2,9		...10225040066
350	68	25 x 36	1133	1700	5	1510	0,5		...68035025036
350	100	30 x 36	1000	1500	5	1320	0,6		...10135030036
350	150	30 x 50	733	1100	5	970	0,8		...15135030050
350	220	35 x 50	387	580	5	520	1,1		...22135035050
350	330	35 x 66	253	380	5	340	1,6		...33135035066
350	470	40 x 66	187	280	5	250	1,9		...47135040066
350	680	40 x 66	147	220	5	200	2,2		...68135040066
350	1000	50 x 66	93	140	5	130	2,9		...10235050066
400	47	25 x 36	1333	2000	5	1790	0,5		...47040025036
400	68	25 x 36	1267	1900	5	1680	0,5		...68040025036
400	100	30 x 36	1067	1600	5	1410	0,6		...10140030036
400	150	30 x 50	800	1200	5	1050	0,7		...15140030050
400	220	35 x 50	400	600	5	530	1,1		...22140035050
400	330	35 x 66	280	420	5	370	1,5		...33140035066
400	470	40 x 66	207	310	5	280	1,8		...47140040066
400	680	50 x 66	167	250	5	220	2,2		...68140050066
450	47	25 x 36	1000	1500	7	1380	0,5		...47045025036
450	68	30 x 36	867	1300	7	1170	0,6		...68045030036
450	100	30 x 36	547	820	7	750	0,8		...10145030036
450	150	35 x 50	340	510	7	470	1,2		...15145035050
450	220	35 x 66	213	320	7	300	1,7		...22145035066
450	330	40 x 66	180	270	7	250	2,0		...33145040066
450	470	40 x 66	100	150	7	140	2,6		...47145040066
500	47	30 x 50	1000	1500	10	1380	0,6		...47050030050
500	68	30 x 50	667	1000	10	920	0,8		...68050030050
500	100	35 x 50	567	850	10	770	0,9		...10150035050
500	150	35 x 66	413	620	10	560	1,2		...15150035066
500	220	35 x 66	233	350	10	320	1,6		...22150035066

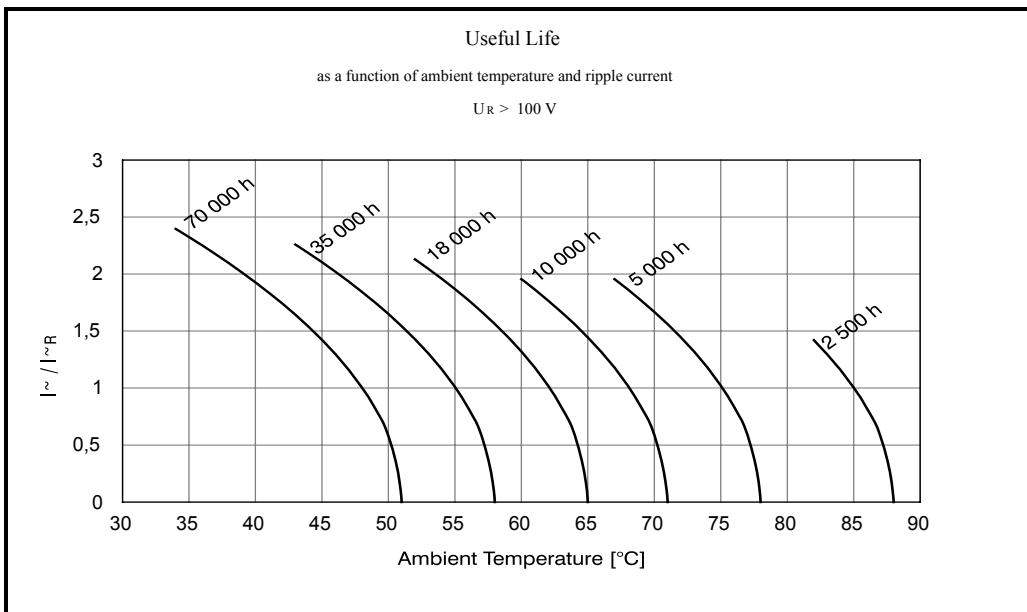
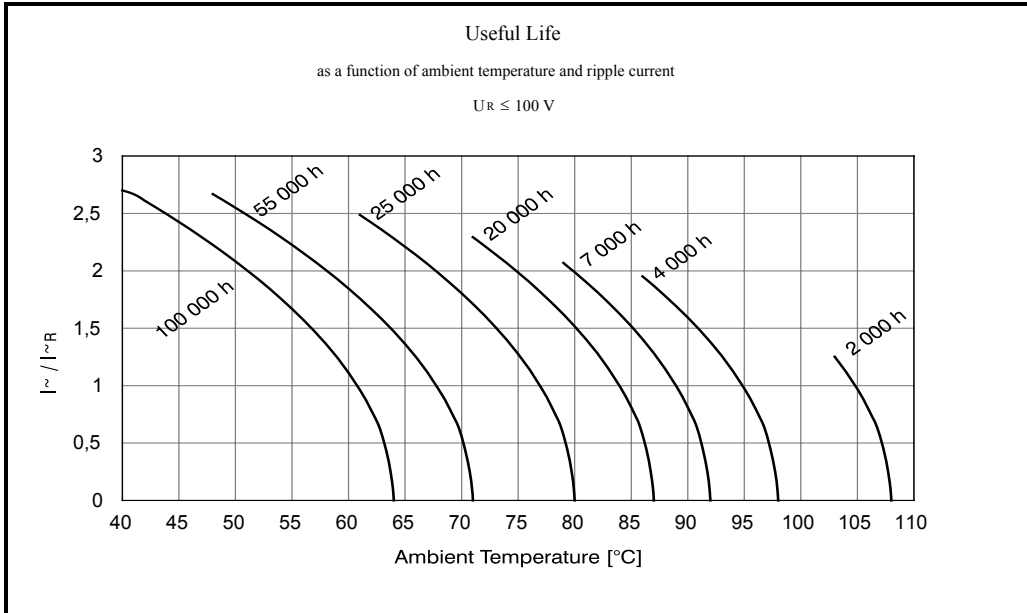
Other case size and voltage - / capacitance combinations are available on request !  
Also in small lots !

Please call us! It is a pleasure for us to make you an offer.



# Aluminium Electrolytic Capacitors

## 8.3 Useful Life Type LF



Ripple current as a function of the frequency  $f$

$f$ [Hz]	50	100	200	400	1 000	2 000	4000	10 000	20 000	40 000
$I / I_R$	0,97	1,0	1,08	1,12	1,15	1,18	1,2	1,25	1,25	1,25