

**Long-life grade capacitors  
for professional electronic ballasts**

**Applications**

- Energy-saving lamps
- Electronic ballasts
- Power supplies
- High-temperature environments

**Features**

- High ripple current capability
- Wide temperature range

**Construction**

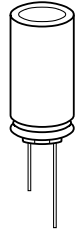
- Radial leads
- Charge-discharge proof, polar
- Aluminum case with insulating sleeve
- Minus pole marking on insulating sleeve
- Case with safety vent
- Stand off rubber seal

**Delivery mode**

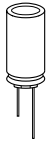
Special terminals configuration and packing:

- Bulk
- Taped, Ammo pack
- Cut
- Kinked

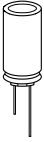
Refer to page 503 for further details and ordering example.



KAL0707-F


**Specifications and characteristics in brief**

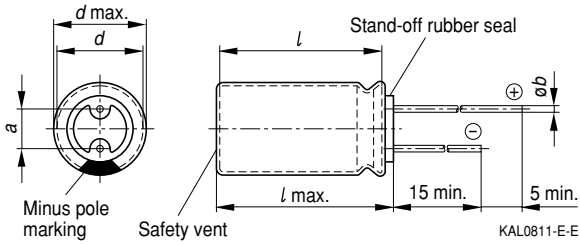
Rated voltage $U_R$	160 ... 350 VDC	
Surge voltage $U_S$	$1,1 \cdot U_R$	
Rated capacitance $C_R$	3,3 ... 220 $\mu$ F	
Capacitance tolerance	$\pm 20 \% \triangleq M$	
Useful life 125 °C; $U_R$ ; $I_{\sim R}$	> 2 000 h	Requirements: $\Delta C/C \leq \pm 35 \%$ of initial value $\tan \delta \leq 3$ times initial specified limit $I_L \leq$ initial specified limit Failure percentage: $\leq 1 \%$ Failure rate: $\leq 100$ fit ( $\leq 100 \cdot 10^{-9}/h$ ) (for definition "fit", refer to chapter "Quality", page 62)
Voltage endurance test 125 °C; $U_R$	2 000 h	Post test requirements: $\Delta C/C \leq \pm 30 \%$ of initial value $\tan \delta \leq 2$ times initial specified limit $I_L \leq$ initial specified limit
IEC climatic category	To IEC 60068-1: $U_R \leq 250$ V:40/125/56 (– 40 °C/+ 125 °C/56 days damp heat test) $U_R = 350$ V:25/125/56 (– 25 °C/+ 125 °C/56 days damp heat test)	
Sectional specification	IEC 60384-4	
Vibration resistance	To IEC 60068-2-6, test Fc: displacement amplitude 0,75 mm, frequency range 10 ... 2000 Hz, acceleration max. 10 g, duration 3 $\times$ 2 h	



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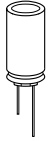
125 °C

**Dimensional drawing**



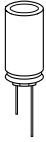
**Dimensions and weights**

Dimensions (mm)				Approx. weight
$d \times l$	$d_{max} \times l_{max}$	$a \pm 0,5$	$b$	g
10 × 16	10,5 × 17	5,0	0,60 ± 0,05	1,9
10 × 20	10,5 × 22	5,0	0,60 ± 0,05	2,6
12,5 × 20	13 × 22	5,0	0,60 ± 0,05	3,6
12,5 × 25	13 × 27	5,0	0,60 ± 0,05	4,5
16 × 20	16,5 × 22	7,5	0,80 ± 0,05	5,5
16 × 25	16,5 × 27	7,5	0,80 ± 0,05	7,5
16 × 31,5	16,5 × 33,5	7,5	0,80 ± 0,05	7,8
18 × 35	18,5 × 36	7,5	0,80 ± 0,1	13


**Overview of available types**

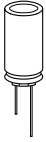
$U_R$ (VDC)	160	200	250	350
$C_R$ ( $\mu$ F)	Case dimensions $d \times l$ (mm)			
3,3				10 × 20
3,9				10 × 20
4,7				10 × 20
6,8				12,5 × 20
10	10 × 16	10 × 20	10 × 20	12,5 × 25
15		10 × 20	12,5 × 20	
22	10 × 20	12,5 × 20	12,5 × 25	16 × 25
33	12,5 × 20	12,5 × 25	12,5 × 25	16 × 31,5
47	12,5 × 25	12,5 × 25	16 × 31,5	
68	16 × 20	16 × 25		
100	16 × 25	16 × 31,5		
220	16 × 31,5	18 × 35		

Other voltage and capacitance ratings are also available upon request.


**B43866**
**125 °C**
**Technical data and ordering codes**

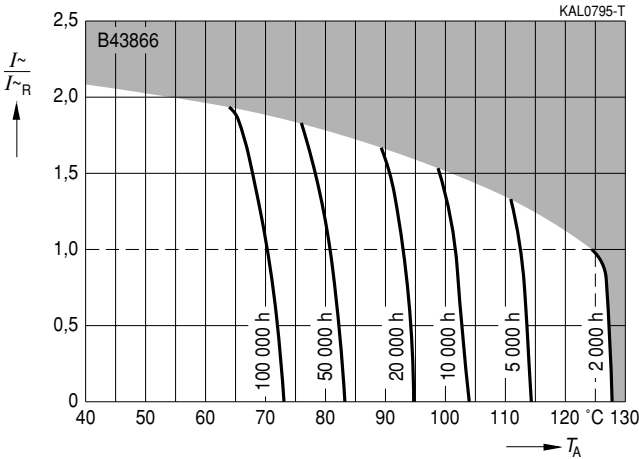
$U_R$	$C_R$	Case dimensions	$I_L$	$\tan \delta_{\max}$	$ESR_{\max}$	$I_{\sim R}$	Ordering code <sup>1)</sup>
VDC	120 Hz 20 °C $\mu F$	$d \times l$ mm	5 min 20 °C $\mu A$	120 Hz 20 °C	120 Hz 20 °C $\Omega$	120 Hz 125 °C mA	
160	10	10 × 16	63	0,20	33,2	100	B43866A1106M00*
	22	10 × 20	95	0,20	15,1	150	B43866A1226M00*
	33	12,5 × 20	130	0,20	10,0	210	B43866A1336M00*
	47	12,5 × 25	175	0,20	7,1	290	B43866A1476M00*
	68	16 × 20	242	0,20	4,9	355	B43866A1686M00*
	100	16 × 25	495	0,20	3,3	480	B43866A1107M00*
	220	16 × 31,5	1071	0,20	1,51	520	B43866A1227M00*
200	10	10 × 20	65	0,20	33,2	105	B43866A2106M00*
	15	10 × 20	85	0,20	22,1	130	B43866A2156M00*
	22	12,5 × 20	113	0,20	15,1	185	B43866A2226M00*
	33	12,5 × 25	157	0,20	10,0	240	B43866A2336M00*
	47	12,5 × 25	213	0,20	7,1	290	B43866A2476M00*
	68	16 × 25	297	0,20	4,9	365	B43866A2686M00*
	100	16 × 31,5	615	0,20	3,3	510	B43866A2107M00*
	220	18 × 35	1335	0,20	1,51	550	B43866A2227M00*
	250	10	10 × 20	75	0,20	33,2	105
15		12,5 × 20	100	0,20	22,1	130	B43866F2156M00*
22		12,5 × 25	135	0,20	15,1	195	B43866F2226M00*
33		12,5 × 25	190	0,20	10,0	240	B43866F2336M00*
47		16 × 31,5	260	0,20	7,1	330	B43866F2476M00*
350		3,3	10 × 20	48	0,25	125,6	60
	3,9	10 × 20	52	0,25	106,3	70	B43866A4395M00*
	4,7	10 × 20	57	0,25	88,2	80	B43866A4475M00*
	6,8	12,5 × 20	72	0,25	61,0	95	B43866A4685M00*
	10	12,5 × 25	95	0,25	41,4	135	B43866A4106M00*
	22	16 × 25	179	0,25	18,8	215	B43866A4226M00*
	33	16 × 31,5	256	0,25	12,6	280	B43866A4336M00*

1) \* = "0" for bulk version. For taping versions, other lead configurations and packing information see page 503.

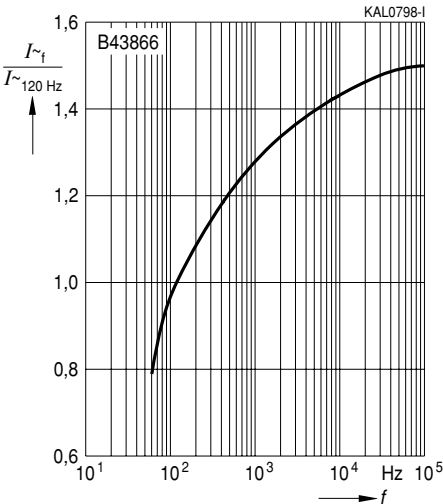


**Useful life**

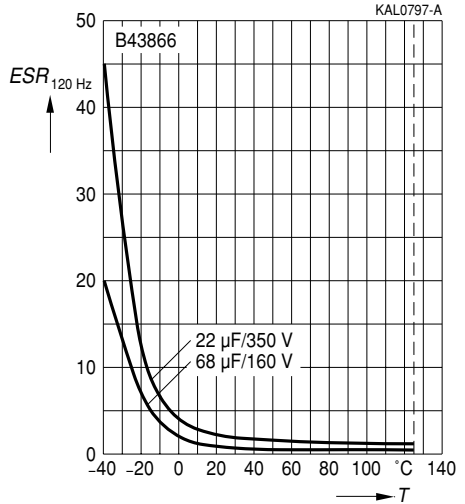
depending on ambient temperature  $T_A$  under ripple current operating conditions<sup>1)</sup>  
 $U_R = 160 \dots 350$  VDC



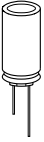
**Frequency factor of permissible ripple current  $I_{\sim}$  versus frequency  $f$**



**Equivalent series resistance ESR versus temperature T**  
 Typical behavior at 120 Hz



1) Refer to page 40 for an explanation on how to interpret the useful life graphs.



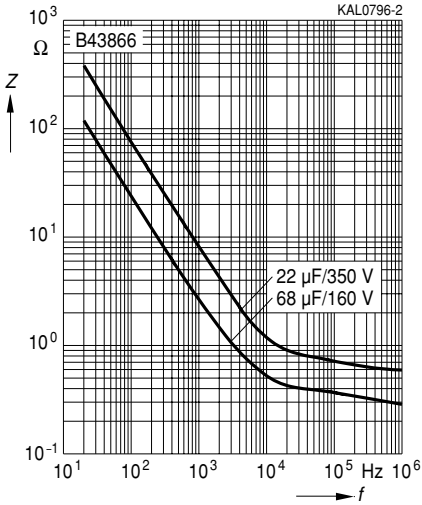
**B43866**

**125 °C**

**Impedance  $Z$**

versus frequency  $f$

Typical behavior at 20 °C



**Herausgegeben von EPCOS AG**

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