

ALC10 Series 85°C

RoHS
Compliant

- Compact size
- Long Life, 18000 hours at 85°C (U_r, I_r applied)
- High ripple current
- Excellent surge voltage capability
- Optimized designs available on request

APPLICATION

They are ideally suited for industrial and commercial applications demanding high reliability and long life expectancy such as frequency converters, UPS systems and switch mode power supplies.

BASIC DESIGN

The ALC10 series of snap-in capacitors cover a wide range of case sizes and voltage ratings featuring high ripple current and surge voltage capability and very long life performance.

SPECIFICATION

Standards	IEC 60384-4 Long Life Grade 40/85/56,																	
Capacitance range	56 – 82000 µF																	
Capacitance tolerance	-20 to +20%																	
Rated voltage U_R	40–500 VDC																	
Surge voltage U_s	1.15 x U _R (for U _R ≤ 250 VDC) 1.10 x U _R (for U _R ≥ 350 VDC)	Test Condition: ≤ 30s surge, 1000 cycles @ 85°C																
Surge voltage U_{ss} (Short duration)	<table border="1"> <thead> <tr> <th>U_R</th> <th>U_{ss}</th> </tr> </thead> <tbody> <tr><td>200</td><td>350</td></tr> <tr><td>250</td><td>400</td></tr> <tr><td>350</td><td>500</td></tr> <tr><td>400</td><td>520</td></tr> <tr><td>415</td><td>530</td></tr> <tr><td>450</td><td>550</td></tr> <tr><td>500</td><td>600</td></tr> </tbody> </table>	U _R	U _{ss}	200	350	250	400	350	500	400	520	415	530	450	550	500	600	Test Condition: ≤ 500ms surge, 100 cycles @ 20°C
U _R	U _{ss}																	
200	350																	
250	400																	
350	500																	
400	520																	
415	530																	
450	550																	
500	600																	
Leakage current I_L	= 0.006 x C _R x U _R (µA) or 6mA whichever is the smaller. Note, C _R is in µF.	Test Condition: U _R , 5mins., 20°C																
Operational life time +85°C, U_R, I_R	<table border="1"> <thead> <tr> <th>Can Diameter</th> <th>Life (hrs)</th> </tr> </thead> <tbody> <tr><td>25</td><td>10000</td></tr> <tr><td>30</td><td>13000</td></tr> <tr><td>35</td><td>15000</td></tr> <tr><td>40, 45, 50</td><td>18000</td></tr> </tbody> </table>	Can Diameter	Life (hrs)	25	10000	30	13000	35	15000	40, 45, 50	18000	End of Life requirement: ΔC/C ≤ ±10% ESR ≤ 2 x initial ESR value I _L ≤ initial specified limit						
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30	21000																	
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40, 45, 50	29000																	
Shelf Life	2000 hrs at 0V +85°C, or 30000 hrs at 0V +40°C																	
Temperature range	-40 to +85°C (Operating) -55°C to +85°C (Storage)																	