Series C54
DC-Link Polypropylene Capacitors

**Features:** Flame retardant to UL94, extended metalized film, dry connection, aluminum case with resin sealing, tinned copper nut terminals, large capacity, small volume, high ripple current capability, low temperature rise, good heat dissipation, long service life.

**Applications:** Induction heating equipment in the DC bus bar support, smoothing filter circuit.

### Specifications

1) **Operating Temperature**  
-40°C to 85°C.

2) **Capacitance**  
20µF to 45µF

3) **Rated Voltage**  
800 VDC.

4) **Tolerance**  
±5% or ±10%.

5) **Test Voltage Between Terminals and Case**  
3000V 50Hz 60s, 25°C±5°C.

6) **Test Voltage Between Terminals**  
1.5 rated DC voltage 10s 25°C±5°C.

7) **Dissipation Factor**  
0.2% max at 25°C±5°C, 1kHz

8) **Insulation Resistance**  
5000 MΩ·µF min, at 100 VDC, 25°C±5°C, 60s

9) **Life Expectancy**  
200000h at rated DC voltage and 70°C.

10) **Reference Standards**  
GB/T 17702, IEC 61071

### Surge Voltage Limits

<table>
<thead>
<tr>
<th>Surge Voltage (VDC)</th>
<th>Max Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 x Rated</td>
<td>30% of service period</td>
</tr>
<tr>
<td>1.15 x Rated</td>
<td>30 min./day</td>
</tr>
<tr>
<td>1.2 x Rated</td>
<td>5 min./day</td>
</tr>
<tr>
<td>1.3 x Rated</td>
<td>1 min./day</td>
</tr>
<tr>
<td>1.5 x Rated</td>
<td>100mS/day; no more than 1000 times</td>
</tr>
</tbody>
</table>
DC Link Nomenclature

C51SC501507KTXXC

Shape Code:
R - Rectangle
B - Box
C - Cylindrical
E - Epoxy
S - Seal

Rated Voltage:
First two digits are significant digits.
Third digit is number of zeros.
Ex: 501 = 500V

Tolerance:
J - ±5%
K - ±10%

Order Code:
S - Standard
C - Customized

Lead Type:
FXX - Nut
MXX - Screw
TXX - Lug
LXX - Lead Wire
XX - Lead size/Code

Material:
S - Metallized
D - Double Sided Film
M - Mix
F - Foil
K - Multi-Series

Product Series:
C51 - Round Aluminum Case
C52 - Radial Lead Case
C53 - Tape Wrapped Case
C54 - Rectangular Aluminum Case
C55 - Plastic Case
C56 - Dual Capacitor Rectangular
    Aluminum Case
C58 - Round Plastic Case

Capacitance: pf
First two digits are significant digits.
Third digit is number of zeros.
Ex: 507 = 500 µF
# C54

## Rectangular Aluminum Case

## DC Link Polypropylene Capacitors

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### Dimensions and Ratings

<table>
<thead>
<tr>
<th>Cap.</th>
<th>Part #</th>
<th>kW</th>
<th>L (mm)</th>
<th>D (mm)</th>
<th>H (mm)</th>
<th>P (mm)</th>
<th>dv/dt (V/μs)</th>
<th>Ims Max (A)</th>
<th>Stud Mounting</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>C54SR801206KF***#</td>
<td>12~20</td>
<td>93</td>
<td>65</td>
<td>30</td>
<td>28</td>
<td>50</td>
<td>50</td>
<td>2XM5</td>
</tr>
<tr>
<td>30</td>
<td>C54SR801306KF***#</td>
<td>20~30</td>
<td>93</td>
<td>75</td>
<td>30</td>
<td>28</td>
<td>50</td>
<td>60</td>
<td>2XM5</td>
</tr>
<tr>
<td>45</td>
<td>C54SR801456KF***#</td>
<td>30~35</td>
<td>93</td>
<td>75</td>
<td>45</td>
<td>28</td>
<td>50</td>
<td>75</td>
<td>2XM5</td>
</tr>
</tbody>
</table>

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Please consult factory for special requirements, including non-standard values and sizes

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