172 RLX Aluminum Electrolytic Capacitors

Smaller Case Size and up to 50 % Higher Ripple Current for New Industrial Power Applications

ADVANTAGE
The 172 RLX series offers AEC-Q200 qualified capacitors with very high ripple current, long useful life, and high capacitance.

KEY PRODUCT FEATURES
- AEC-Q200 qualified for highest reliability
- Ripple current of the 172 RLX series is higher than the ripple current of the previous series at the same CV value
- Smaller case size for higher integration density
- Higher capacitance values in a smaller size

MARKETS AND APPLICATIONS

MOBILITY
- ECUs
- Electrical vehicles
- Camera systems
- Connectivity
- E-bikes
- Railway equipment
- Agriculture vehicles

INDUSTRIAL
- Control units
- Motor drives
- Power supplies
- Home automation

ENERGY SECTOR
- Monitoring
- Metering

RESOURCES

Product Page
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### ADDITIONAL BENEFITS

- Higher capacitance values available at lower voltages compared to 170 RVZ series
- Ripple current up to 4960 mA (100 kHz / 105 °C)
  
  e.g. 15000 μF / 10 V
- AEC-Q200 automotive qualified
- IATF 16949 certified manufacturer
- Manufactured in the EU

### Product Characteristics

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal case sizes</td>
<td>10 x 12 mm to 18 x 40 mm</td>
</tr>
<tr>
<td>Capacitance range</td>
<td>150 μF to 15 000 μF</td>
</tr>
<tr>
<td>Rated voltage range</td>
<td>10 V to 50 V</td>
</tr>
<tr>
<td>Category temperature range</td>
<td>-40 °C to +105 °C</td>
</tr>
<tr>
<td>Useful life at 105 °C</td>
<td>4000 h to 10 000 h</td>
</tr>
<tr>
<td>Useful life at 40 °C 1.8 x I&lt;sub&gt;r&lt;/sub&gt; applied</td>
<td>200 000 h to 500 000 h</td>
</tr>
<tr>
<td>Based on sectional specification</td>
<td>IEC 60384-4 / EN130300</td>
</tr>
<tr>
<td>Automotive qualified</td>
<td>AEC-Q200</td>
</tr>
</tbody>
</table>

The 172 RLX series offers up to nearly 50 % higher ripple current than the 170 RVZ series at 100 kHz and 105 °C (see figure on the left).

With its ability to withstand very high ripple currents and its useful life of up to 10 000 hours at 105 °C, the 172 RLX series is among the highest quality products available on the market.

### Application example:

C2: e.g. MAL217250122E3
1200 μF – 35 V, IR = 3200 mA (100 kHz / 105 °C)
capacitor in the DC/DC converter part of a switch mode power supply.

C1: 100 μF – 470 μF / 400 V
e.g. 142 RHS or 193 PUR-SI series

Automotive Grade capacitors deliver stable performance for automotive electronics. These AEC-Q200 qualified capacitors likewise deliver reliably high performance in industrial applications and renewable energy products.