R53 series is ideal for harsh environments and is AEC–Q200 qualified. Due to its miniaturized dimensions, this series is an excellent option in space-constrained applications.

### Benefits
- X2 CLASS (IEC 60384-14)
- THB Grade IIIB: 85°C, 85% R.H., 1,000h at 310 V<sub>AC</sub> and 560 V<sub>DC</sub> according to IEC 60384-14
- AEC-Q200 qualified
- Approvals: ENEC, UL, cUL, CQC
- Low Halogen content according to JS709C

### Part Number System

<table>
<thead>
<tr>
<th>R53</th>
<th>3</th>
<th>I</th>
<th>3470</th>
<th>00</th>
<th>P0</th>
<th>M</th>
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</tbody>
</table>

- Capacitance Tolerance
- Internal Use
- Packaging
- Capacitance Code (pF)
- Lead Spacing (mm)
- Rated Voltage (VAC)
- Series

### Capacitance Range vs. Lead Space

#### R53 Capacitance Drift
Test: 85°C, 85% R.H. at 310 VAC, 1,000 hours

<table>
<thead>
<tr>
<th>Lead Space (mm)</th>
<th>1</th>
<th>4.8</th>
<th>8.7</th>
<th>12.5</th>
<th>16.3</th>
<th>20.2</th>
<th>24</th>
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<tbody>
<tr>
<td>µF</td>
<td>37.5</td>
<td>27.5</td>
<td>22.5</td>
<td>15</td>
<td>104.8</td>
<td>87.5</td>
<td>72.2</td>
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</table>

<table>
<thead>
<tr>
<th>Time [h]</th>
<th>0</th>
<th>500h</th>
<th>1000h</th>
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</thead>
<tbody>
<tr>
<td>ΔC/C [%]</td>
<td>MIN</td>
<td>MAX</td>
<td>AVG</td>
</tr>
<tr>
<td>-10</td>
<td>-9.5</td>
<td>-9</td>
<td>-8.5</td>
</tr>
</tbody>
</table>

### Electrical Characteristics
- Capacitance Range: 0.1 µF – 22 µF
- Rated Voltage: 310 V<sub>AC</sub>, 50 / 60 Hz, 560 V<sub>DC</sub>
- Operating Temperature Range: -40°C to +110°C
- Recommended DC Voltage: ≤ 630 V<sub>DC</sub>

### Applications
- EMI Filters
  - Across the mains AC and DC
  - In series with the mains