Reduce High Frequency Distortion

KRF filters use a combination of high frequency inductors and capacitors to reduce noise in the critical 150 kHz to 30 MHz frequency range. The inductors act as open circuits and the capacitors act as short circuits at high frequencies while allowing the lower power line frequencies to pass untouched.

KRF filters assist with cost effective compliance to EMC directives, in a compact, efficient, light-weight design. The high common mode and differential mode reduction in the critical 150 kHz to 30 MHz frequency range ensures that potential interference from AC drives is reduced or eliminated.

Features of the KRF

- Reduces interference
- Protects sensitive equipment
- Eliminates drive cross-talk
- Meet FCC Regulation 15, Subpart J
- cULus Listed and ENEC marked

Typical Applications

- Motor Drives
- Elevators
- Commercial Buildings
- Wind Farms
- Photovoltaics
- UPS
- Power Supplies
### Equipment Interference and Failure

The power line noise emissions associated with variable frequency drives can cause disturbances in nearby equipment. Typical disturbances include:

- Dimmer and ballast instability
- Lighting disturbances such as flashing
- Poor radio reception
- Instability of control systems
- Flow metering fluctuation
- Computer system failures
- Remote I/O glitches
- Encoder feedback errors
- Nuisance faults PLC
- Analog meter bouncing
- Thermostat control problems

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### Technical Specifications

| System Voltage                  | 480 VAC (applied to 240 VAC - 520 VAC)  
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Amp Ratings</td>
<td>480 V: 8 - 2500</td>
</tr>
<tr>
<td></td>
<td>690 V: 25 - 2500</td>
</tr>
<tr>
<td>Number of Phases</td>
<td>3-Phase</td>
</tr>
<tr>
<td>Short Term Overload Rating</td>
<td>150% rated I for 3 minutes/60 minutes</td>
</tr>
<tr>
<td></td>
<td>250% for 3 seconds/60 minutes</td>
</tr>
<tr>
<td>Tested Value</td>
<td>100% tested for Hipot, ground continuity, input-output continuity and insertion loss characteristic</td>
</tr>
<tr>
<td>Fundamental Frequency</td>
<td>50/60 Hz</td>
</tr>
<tr>
<td>Warranty</td>
<td>1 year</td>
</tr>
<tr>
<td>Environmental Conditions</td>
<td></td>
</tr>
<tr>
<td>Ambient Temperature</td>
<td>-25° to 100° C</td>
</tr>
<tr>
<td>Maximum Altitude</td>
<td>1,000 m (3,300 ft) Derating necessary above 1,000 m</td>
</tr>
<tr>
<td>Reference Technical Standards</td>
<td></td>
</tr>
<tr>
<td>Agency Approvals</td>
<td>ENEC, cULus</td>
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</tbody>
</table>

### Part Numbering

- **K-Series:**
- 3-Phase EMI/RFI Filter:
- Max Current (amps):
- Voltage Rating:
  - A - 480 V
  - V - 690 V
- Termination:
  - TB - Termination Block
  - CB - Copper Bus

### Typical Circuit Diagram

#### Before KRF

#### After KRF