



## Corcom

### EMI/RFI Filter Product Overview

TE Connectivity offers over 300 solutions for EMI/RFI problems associated with susceptibility, as well as compliance with international emissions standards. Corcom filters are available in a wide range of single and 3-phase designs as well as IEC inlet and power entry modules which can combine several functions to reduce cost, space and labor. Solutions are also available for DC applications and applications requiring extremely high performance with feedthrough filters and capacitors for a wide range of applications.

| FILTER TYPE | POWER LINE FILTERS |          |           |
|-------------|--------------------|----------|-----------|
| SERIES      | B Series           | K Series | DK Series |



| PERFORMANCE | General Purpose |  |  |
|-------------|-----------------|--|--|
|-------------|-----------------|--|--|

|           |   |  |  |
|-----------|---|--|--|
| Approvals | UL / CSA / VDE  | UL / CSA / VDE   | UL / CSA / VDE   |
| Features  | <b>General purpose RFI Filters for high impedance load / low current</b> <ul style="list-style-type: none"> <li>General purpose</li> <li>Wide variety of termination options</li> <li>Meets low leakage current requirements of VDE portable equipment and non-patient medical equipment</li> </ul> | <b>General purpose RFI power line filters for high impedance loads</b> <ul style="list-style-type: none"> <li>Well suited to applications where pulsed, continuous and/or intermittent RFI interference is present</li> <li>EK models meet the very low leakage current requirements for VDE portable equipment and non-patient care medical equipment</li> <li>Available with ground line inductor (choke)</li> </ul> | <b>Enhanced differential mode performance K Series RFI line filters</b> <ul style="list-style-type: none"> <li>Higher performance line to line attenuation than the K Series</li> <li>E version meets the very low leakage current requirements for VDE portable equipment and non-patient care medical equipment</li> <li>V version features same high performance with more cost-effective design</li> </ul> |

## ELECTRICAL PARAMETERS

|   |  |   |  |
|---|--|---|--|
| Max. voltage  | 250 VAC  | 250 VAC   | 250 VAC  |
| Current Ratings   | 1, 2, 3, 5, 10, 20 or 30A                              | 1, 2, 3, 5, 10, 20, 30, 40 or 60A                       | 1, 3, 6, 10 or 20A                                       |
| Leakage current each Line to Ground @ 120VAC 60Hz / 250VAC 50Hz | VB Models: .4 mA / .7 mA<br>EB Models: .21 mA / .36 mA | VK Models: .5 mA / 1.0 mA<br>EK Models: .21 mA / .36 mA | VDK Models: .4 mA / .7 mA<br>EDK Models: .22 mA / .38 mA |
| Electrical Setup  | Single stage   | Single stage  | Dual stage   |

## MECHANICAL PARAMETERS

|                     |   |   |   |
|---------------------|---|---|---|
| Mounting features   | Screw mounting  | Screw mounting (flange or panel)  | Screw mounting  |
| Termination inputs  | .25 [6.3] spade terminals, 8-32 terminal bolt & nut or wire leads | .25 [6.3] spade terminals, 8-32 terminal bolt & nut, wire leads or IEC 60320-1 C14 or C20 | .25 [6.3] spade terminals, 8-32 terminal bolt & nut or wire leads |
| Termination outputs | .25 [6.3] spade terminals, 8-32 terminal bolt & nut or wire leads | .25 [6.3] spade terminals, 8-32 terminal bolt & nut or wire leads                         | .25 [6.3] spade terminals, 8-32 terminal bolt & nut or wire leads |

## TYPICAL APPLICATIONS

|   |   |  |
|---|---|--|
| Wide band RFI suppression for applications requiring low attenuation including: <ul style="list-style-type: none"> <li>HVAC</li> <li>TV / Audio / Video</li> <li>Computing &amp; accessories</li> <li>Home appliances</li> <li>Medical equipment</li> <li>Battery charging systems</li> <li>Exercise equipment</li> </ul> | Universal filter for applications requiring mid-range attenuation including: <ul style="list-style-type: none"> <li>TV / Audio / Video</li> <li>Computing &amp; accessories</li> <li>Home appliances</li> <li>Medical equipment</li> <li>Gaming machines</li> <li>Exercise equipment</li> <li>Test measurement equipment</li> </ul> | Universal filter for applications requiring improved attenuation including: <ul style="list-style-type: none"> <li>TV / Audio / Video</li> <li>Computing &amp; accessories</li> <li>Home appliances</li> <li>Medical equipment</li> <li>Gaming machines</li> <li>Exercise equipment</li> </ul> |
|---|---|--|

## POWER LINE FILTERS (Continued)

## R Series

## EBP, EDP, EOP Series

## WG Series

## X, Y &amp; Z Series



| General Purpose  |  | Wide Range Performance   |  |
|--|--|--|--|
| UL / CSA / VDE   | UL / CSA / VDE   | UL / CSA / VDE   | UL / CSA / VDE   |
| <b>Two-stage general purpose RFI power line filter</b> <ul style="list-style-type: none"> <li>Dual T section RFI filter provides premium performance</li> <li>Well suited for low impedance loads where noisy RFI environments are present</li> <li>Controls pulsed, continuous and/or intermittent interference</li> <li>ER model offers low leakage current without deterioration of insertion loss</li> </ul> | <b>PC board mountable general purpose RFI filters</b> <ul style="list-style-type: none"> <li>General purpose</li> <li>Low leakage current</li> <li>Cost-effective</li> <li>Compact size</li> <li>EDP model features enhanced differential mode performance</li> <li>EBP model features compact size (less than 1" square)</li> </ul> | <b>High performance, low cost filter ideal for appliance equipment</b> <ul style="list-style-type: none"> <li>Cost effective</li> <li>Tubular design</li> <li>WGD, WGE and WGF versions designed to comply with leakage current requirements for appliances which may be easily moved from one place to another</li> <li>Available in a variety of styles</li> </ul> | <b>Chassis or PC Board Mountable Power Line Filters for Emission Control</b> <ul style="list-style-type: none"> <li>Compact chassis or PC board mountable</li> <li>Three levels of performance</li> <li>Complete filtering solution in minimal size</li> <li>X Series for FCC Part 15J, Class B</li> <li>Y Series for EN55022, Level A</li> <li>Z Series for EN55022, Level B</li> <li>Medical version available in the HZ Series</li> </ul> |
| 250 VAC  | 250 VAC  | 250 VAC  | 250 VAC  |
| 1, 2, 3, 5, 10 or 20A  | 1, 3, 6 or 10A   | 16A  | 1, 2, 3, 4 or 6A   |
| VR Models: .4 mA / .7 mA<br>ER Models: .21 mA / .36 mA   | EDP/EOP Models: .22 mA / .38 mA<br>EBP Models: .13 mA / .21 mA   | A, B & C Models: .76 mA / 1.27 mA<br>D, E & F Models: .10 mA / .20 mA  | .3 mA / .5 mA  |
| Single stage   | Single stage   | Single stage   | Single stage   |
| Screw mounting (flange or panel)   | PC board pins  | Screw-in mounting stud   | Screw mount or PC board pins   |
| .25 [6.3] spade terminals, 8-32 terminal bolt & nut, wire leads or IEC 60320-1 C14   | PCB pins .025 [.635] square  | .25 [6.3] spade terminals, wire leads or RAST 5 header interface   | .25 [6.3] spade terminals or PCB pins .065[1.65] diagonal  |
| .25 [6.3] spade terminals, 8-32 terminal bolt & nut or wire leads  | PCB pins .025 [.635] square  | .25 [6.3] spade terminals, wire leads or RAST 5 header interface   | .25 [6.3] spade terminals or PCB pins .065[1.65] diagonal  |

Universal filter for applications with low impedance loads including:

- Motors
- Semiconductor actuators
- Home appliances
- Gaming machines
- Exercise equipment
- Security systems
- Industrial equipment & controls

Designed for PCB mounting for a wide range of applications including:




- Gaming machines
- Cash terminals
- Office equipment
- Small consumer electronics
- TV / Audio / Video
- Computing & accessories

Specially designed for the white goods / appliance market. Offers wide band RFI suppression for many applications including:

- Washing machines / dryers
- Dishwashers
- Refrigerators & freezers
- Coffee Machines
- Hand held appliances & tools
- Ovens & ranges

RFI filter designed to bring most digital equipment (including those with switching power supplies) into compliance with EN55022, Level A or B and FCC Part 15J, Class B conducted emission limits. Ideal for all applications with limited space including:

- Switching Power Supplies
- Industrial single phase applications

| POWER LINE FILTERS <small>(Continued)</small>                   |  |  |   |
|---|--|--|---|
| FILTER TYPE   |  |  |   |
| SERIES  | S, V & W Series  | G & N Series   | SB Series   |
|   |   |    |    |
| PERFORMANCE   | Wide Range Performance   |  |   |
| Approvals   | UL / CSA / VDE   | UL / CSA / VDE   | UL / CSA / VDE  |
| Features  | <b>Multipurpose Power Line RFI Filter for Emission Control</b> <ul style="list-style-type: none"> <li>Effective when used to control emissions in equipment using SCR and T2L circuits</li> <li>S &amp; W Series designed for high impedance frequencies</li> <li>V Series designed for low impedance frequencies</li> <li>Medical version available in the MV Series</li> </ul>                   | <b>High Performance RFI Filters for Switching Power Supplies For increased filtering requirements</b> <ul style="list-style-type: none"> <li>Designed to provide excellent attenuation for most digital electronics equipment and help comply with EN55022 Level A and FCC Part 15J Class B</li> <li>Broad frequency range of performance from 20kHz to 30MHz</li> <li>Size and cost-effective solution</li> </ul> | <b>High Performance B Series RFI Line Filters</b> <ul style="list-style-type: none"> <li>Enhanced performance version of our popular B Series of RFI line filters</li> <li>Small size with enhanced performance</li> <li>30A version half the size of other 30A filters</li> <li>Low leakage version available</li> </ul> |
| ELECTRICAL PARAMETERS   |  |  |   |
| Max. voltage  | 250 VAC  | 250 VAC  | 250 VAC   |
| Current Ratings   | 3, 6, 10, 20 & 60A (60A S Series only)   | 6 & 10A  | 6, 10, 20 & 30A   |
| Leakage current each Line to Ground @ 120VAC 60Hz / 250VAC 50Hz | .4 mA / .7 mA (S Series 3-10A)<br>.75 mA / 1.25 mA (S Series 60A)<br>.5 mA / .82 mA (V & W Series)<br>.07 mA / .13 mA (MV Series)  | .3 mA / .5 mA (EG models)<br>1.2 mA / 2.0 mA (VG & N models)   | .75 mA / 1.25 mA (VSB models)<br>.22 mA / .36 mA (ESB models)   |
| Electrical Setup  | Dual stage   | Single stage (6A models)<br>Dual stage (10A models)  | Single stage  |
| MECHANICAL PARAMETERS   |  |  |   |
| Mounting features   | Screw mounting   | Screw mounting   | Screw mounting  |
| Termination inputs  | .25 [6.3] spade terminals or terminal bolt & nut   | .25 [6.3] spade terminals  | .25 [6.3] spade terminals or 8-32 terminal bolt & nut   |
| Termination outputs   | .25 [6.3] spade terminals or terminal bolt & nut   | .25 [6.3] spade terminals  | .25 [6.3] spade terminals or 8-32 terminal bolt & nut   |
| TYPICAL APPLICATIONS  |  |  |   |
|   | Multipurpose power line RFI filter for emission control and high noise industrial environments and applications that require compliance with FCC Part 15, Subpart J and EN55022, Level A, down to 150kHz including: <ul style="list-style-type: none"> <li>Consumer electronics</li> <li>Small machine tools</li> <li>Food service equipment</li> <li>Measurement &amp; Instrumentation</li> </ul> | Specifically designed for most digital electronic equipment requiring a high range of symmetric and asymmetric attenuation including: <ul style="list-style-type: none"> <li>Switching power supplies</li> <li>Motor drives</li> <li>Small machine tools</li> <li>Industrial single-phase applications</li> </ul>  | Wide band RFI suppression for applications requiring enhanced performance including: <ul style="list-style-type: none"> <li>TV / Audio / Video</li> <li>Computing &amp; accessories</li> <li>Home appliances</li> <li>Medical equipment</li> <li>Gaming machines</li> <li>Exercise equipment</li> </ul>                   |

## POWER LINE FILTERS (Continued)

## SK Series RK Series EMC Series IK Series



## Wide Range Performance

UL / CSA / VDE

UL / CSA / VDE

UL / CSA / VDE

**High Performance K Series RFI Line Filters for SMPS Emission Control**

- Designed to reduce conducted noise to acceptable limits for equipment that must comply with FCC / EN specifications
- Utilizes significantly higher element values than the general purpose K Series
- ESK6C and VSK6C incorporate separate ground circuit inductor

**High Performance Compact Power Line Filter**

- Compact
- Single stage
- Significant differential mode performance
- Suitable for industrial machinery
- Low input leakage current makes it suitable for portable equipment

**Compact and Cost-effective Dual Stage RFI Power Line Filters**

- Compact dual stage filter series
- Current rating up to 30A
- High differential mode attenuation in the lower frequency range
- High common mode performance
- Ideal for switching mode power supplies

**Single and 2-phase RFI Filters for Industrial Applications**

- Excellent performance for applications with high interference levels
- Designed for single or two-phase applications
- Available touch safe terminals provide easy connections and prevent inadvertent contact

250 VAC

250 VAC

250 VAC

500 VAC MAX. Line to Ground

3, 6, 10, 20, 30 &amp; 40A

3, 6, 10, 15 &amp; 20A

3, 6, 10, 15, 20 &amp; 30A

1, 6, 16, 35, 50 &amp; 80A

.4 mA / .7 mA (3-10A VSK models)  
 .21 mA / .36 mA (3-10A ESK models)  
 .75 mA / 1.25 mA (3-10A VSK models)  
 .3 mA / .5 mA (3-10A ESK models)

.16 mA / .26 mA

.21 mA / .43 mA (3-10A models)  
 .73 mA / 1.52 mA (15-30A models)

.06 mA / 1.2 mA\* (1 & 6A models)  
 1.7 mA / 3.2 mA\* (16 - 50A models)  
 5.2 mA / 9.9 mA\* (80A model)  
 \* 1A @ 289 VAC, 16-80A @ 277 VAC 50Hz

Single stage

Single stage

Dual stage

Dual stage (6-80A models)  
 Dual stage + ground choke (1A only)

Screw mounting (flange or panel)

Screw mounting

Screw mounting

Screw mounting

.25 [6.3] spade terminals,  
 terminal bolt & nut,  
 wire leads or IEC 60320-1 C14

.25 [6.3] spade terminals

.25 [6.3] spade terminals,  
 8-32 terminal bolt & nut or  
 wire leads

.25 [6.3] spade terminals or  
 DIN type terminal block and bolt/nut

.25 [6.3] spade terminals,  
 terminal bolt & nut or  
 wire leads

.25 [6.3] spade terminals

.25 [6.3] spade terminals,  
 8-32 terminal bolt & nut or  
 wire leads

.25 [6.3] spade terminals,  
 wire leads or  
 DIN type terminal block and bolt/nut

Universal filter for consumer electronic applications requiring a premium range of attenuation including:

- TV / Audio / Video
- Computing & accessories
- Home appliances
- Medical equipment
- Industrial equipment & controls
- Exercise equipment

Wide band RFI suppression for applications requiring high attenuation level including:

- Consumer electronics
- Industrial machinery equipment
- Small machine tools
- Home appliances
- Power supplies

Wide band RFI suppression for applications requiring high attenuation levels including:

- Consumer electronics
- Single phase industrial equipment
- Inverters
- Switching power supplies

Wide band RFI filter for small to medium sized industrial equipment, power converters and variable speed motors. Provides suppression of industrial 2-phase applications with high RFI emissions including:

- Transportation vehicles
- Site applications
- Small construction machinery

| FILTER TYPE | POWER LINE FILTERS <i>(Continued)</i> |           |                |
|-------------|---------------------------------------|-----------|----------------|
| SERIES      | Q Series                              | FC Series | EP & VP Series |



| PERFORMANCE | Superior Performance |  |  |
|-------------|----------------------|--|--|
|-------------|----------------------|--|--|

|           |  |   |  |
|-----------|--|---|--|
| Approvals | UL / CSA / VDE   | UL / CSA / VDE *  | UL / CSA / VDE   |
| Features  | <b>Highest Performance RFI Filters for Switching Power Supplies</b> <ul style="list-style-type: none"> <li>• High attenuation for common and differential mode interference</li> <li>• Effective from 10kHz to 30MHz</li> <li>• Optimized for attenuation and size</li> <li>• 3 or 6A versions available with IEC inlet</li> <li>• Medical version available in the HQ Series</li> </ul> | <b>Single Phase Power Line Filter for Frequency Converters</b> <ul style="list-style-type: none"> <li>• Designed for frequency inverters and variable speed motor drives</li> <li>• Suitable for electronically noisy environments</li> <li>• Protects programmable logic controllers from RF noise on the AC power line</li> <li>• Touch safe terminals</li> </ul> | <b>Dual Stage RFI Power Line Filters for Switching Mode Power Supplies</b> <ul style="list-style-type: none"> <li>• Dual stage filter offers high insertion loss</li> <li>• Well suited for meeting CISPR 22 A and FCC Part 15J, Class B</li> <li>• EP model meets very low leakage current requirements</li> <li>• 7 and 12A versions offer optimum package size</li> </ul> |

## ELECTRICAL PARAMETERS

|   |   |   |   |
|---|---|---|---|
| Max. voltage  | 250 VAC   | 250 VAC   | 250 VAC   |
| Current Ratings   | 3, 6 & 20A  | 6 & 10A   | 3, 6, 7, 10, 12 & 20A                                       |
| Leakage current each Line to Ground @ 120VAC 60Hz / 250VAC 50Hz | .73 mA / 1.27 mA (3 & 20A VQ models)<br>.22 mA / .38 mA (3 & 20A EQ models)<br>.29 mA / .51 mA (6A EQ models) | 3.9 mA / 7.0 mA (B suffix, single stage)<br>3.8 mA / 6.7 mA (no suffix, dual stage) | .73 mA / 1.27 mA (VP models)<br>.21 mA / .36 mA (EP models) |

|                  |  |   |            |
|------------------|--|---|------------|
| Electrical Setup | Dual stage<br><i>(medical versions without y-capacitors)</i> | Single stage (B suffix)<br>Dual stage (no suffix) | Dual stage |
|------------------|--|---|------------|

## MECHANICAL PARAMETERS

|                     |  |                    |  |
|---------------------|--|--------------------|--|
| Mounting features   | Screw mounting (flange or panel)                         | Screw mounting     | Screw mounting (flange or panel)   |
| Termination inputs  | .25 [6.3] spade terminals, wire leads or IEC 60320-1 C14 | DIN type terminals | .25 [6.3] spade terminals, wire leads, terminal bolt & nut, or IEC 60320-1 C14 |
| Termination outputs | .25 [6.3] spade terminals or wire leads                  | DIN type terminals | .25 [6.3] spade terminals, wire leads, or terminal bolt & nut                  |

## TYPICAL APPLICATIONS

|   |   |  |
|---|---|--|
| <p>Trouble shooter for wide banded RFI suppression of applications with very high RFI emissions including:</p> <ul style="list-style-type: none"> <li>• Consumer electronics</li> <li>• Single phase industrial applications</li> <li>• Switching power supplies with transient currents</li> <li>• HVAC</li> </ul> | <p>Wide band RFI suppression of industrial single phase applications with very high RFI emissions including:</p> <ul style="list-style-type: none"> <li>• Drives with long motor-cables</li> <li>• Variable speed motor drive applications</li> </ul> | <p>Wide band attenuation for applications with very high RFI emissions. This filter series offers excellent attenuation for applications such as:</p> <ul style="list-style-type: none"> <li>• Consumer electronics</li> <li>• Single phase industrial applications</li> <li>• Drive motors and controllers</li> </ul> |
|---|---|--|

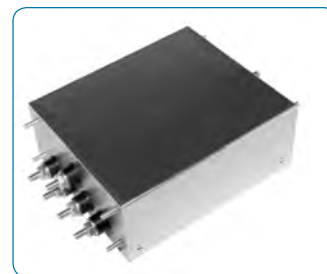
\* VDE approvals for dual stage models up to 36A only



**POWER LINE FILTERS** *(Continued)***DC FILTERS****FEEDTHROUGH FILTERS****T Series****AQ Series****DA, DB, DC and DCP Series****FFA, FFD, AFC, AFD Series**

| Superior Performance  |  | General & High Purpose   | Superior Performance  |
|---|--|--|---|
| UL / CSA / VDE  | UL / CSA   | UL / CSA / VDE   |   |
| <b>High Performance RFI Power Line Filters for Switching Power Supplies</b> <ul style="list-style-type: none"> <li>Superior common-mode and premium differential-mode attenuation</li> <li>Smaller package sizes than the EP Series</li> <li>ET models with low leakage current</li> <li>Medical versions available in the HT Series</li> </ul> | <b>High Frequency Power Line Filter or Power Entry Module</b> <ul style="list-style-type: none"> <li>High common and differential mode performance from 10kHz to 1GHz</li> <li>Available with an IEC inlet, fuseholder and switch</li> <li>Suitable for applications where computers are used to process secret or confidential information</li> </ul> | <b>DC filters available in a wide variety of versions for DC system RFI issues</b> <ul style="list-style-type: none"> <li>DA Series - Compact RFI Line Filter with DC Inlet Connection</li> <li>DB Series - High Current DC Inlet Filter and Connectors</li> <li>DC Series - General purpose line filters for DC applications up to 125VDC with many options</li> <li>P Series - adaptable power entry module for DC rated applications</li> </ul> | <b>AC &amp; DC rated feedthrough filters and capacitors for highest rated performance</b> <ul style="list-style-type: none"> <li>FFA (AC rated) &amp; FFD (DC rated) feedthrough filters</li> <li>AFC (AC rated) &amp; AFD (DC rated) feedthrough capacitors</li> <li>Offers high reliability &amp; performance for high frequency applications</li> <li>Custom versions available</li> </ul> |
| 250 VAC   | 250 VAC  | 125 VDC (DA, DB) & 80VDC (DC, P)   | 250 VAC / 130 VDC   |
| 3, 6, 10, 15 & 20A  | 3, 6, 10, 15 & 20A   | 3, 6, 10 & 15A (DA Series)<br>60A (DB Series), 3 & 6A (P Series)<br>15, 30, 60, 100 & 125A (DA Series)   | 10 to 300A (FFA/AFC/DFC)<br>10 to 200A (FFD)  |
| .3 mA / .5 mA (ET models)<br>.75 mA / 1.2 mA (VT models)  | 1.2 mA / 2.3 mA (3A models)<br>.7 mA / 1.2 mA (6A models)  |  |   |
| Single (3-10A) & Dual stage (10-20A)<br>(medical versions without y-capacitors)   | Multi stage  |  |   |
| Screw mounting  | Screw mounting (flange or panel)   | Screw mounting & snap-in   | Screw mounting  |
| .25 [6.3] spade terminals, wire leads, terminal bolt & nut, or IEC 60320-1 C14  | Wire leads   | Spade terminals, PCB pins, wire leads, DA or DCB connector, or terminal bolt & nut   | Screw terminal  |
| .25 [6.3] spade terminals, wire leads, or terminal bolt & nut   | Wire leads, or IEC 60320-1 C14   | Spade terminals, PCB pins, wire leads, DA or DCB connector, or terminal bolt & nut   | Screw terminal  |
| Wide band attenuation for applications with very high RFI emissions including: <ul style="list-style-type: none"> <li>Consumer electronics</li> <li>Single phase industrial applications</li> <li>Drive motors and controllers</li> <li>Commercial &amp; building equipment</li> </ul>  | Ideal filter series for hardened applications where computers are used to process secret or confidential information.  | <ul style="list-style-type: none"> <li>Network routing equipment</li> <li>Servers</li> <li>Switching equipment</li> <li>Wireless cabinets</li> <li>Ethernet hubs</li> <li>Base stations</li> <li>Repeater stations</li> <li>Power supplies for all types of communications equipment</li> </ul>  | Universal applications including: <ul style="list-style-type: none"> <li>Servers and routers</li> <li>Base stations</li> <li>Transportation</li> <li>Telecom</li> <li>MRI rooms</li> <li>High current switch mode power supplies</li> <li>Military and aerospace</li> </ul>   |

| FILTER TYPE |            | 3-PHASE FILTERS |          |  |
|-------------|------------|-----------------|----------|--|
| SERIES      | AYO Series | AYA Series      | A Series |  |



| PERFORMANCE                         | General & High Purpose  |   | Wide Range Performance   |
|-------------------------------------|---|---|--|
| Approvals                           | UL / CSA / VDE  | UL Recognized <sup>2</sup>  | UL / CSA / VDE   |
| Features                            | <b>Compact Low Current 3-phase WYE RFI Filters</b> <ul style="list-style-type: none"><li>• For 3-phase, four wire, WYE applications</li><li>• Filters each of the three lines plus neutral</li><li>• Good for attenuation beginning at 100kHz</li><li>• Space saving design</li><li>• Low leakage current</li></ul> | <b>3-phase WYE RFI Power Line Filters</b> <ul style="list-style-type: none"><li>• For 3-phase, four wire, WYE applications</li><li>• Cost-effective, universal 3-phase filters</li><li>• Good attenuation over the complete frequency range of 10kHz to 30MHz</li><li>• Two different mounting styles available</li></ul> | <b>High Performance 3-phase RFI Filters for WYE Applications</b> <ul style="list-style-type: none"><li>• Common mode and differential mode suppression from 50kHz to 30MHz</li><li>• Optional end bell kits available to shield input and output terminals</li><li>• AYP single stage for lower noise environments</li><li>• AYT dual stage provides highest performance</li></ul> |
| ELECTRICAL PARAMETERS               |   |   |  |
| Max. voltage                        | 440 VAC Phase to Phase<br>250 VAC Phase to Neutral / Ground   | 440 VAC Phase to Phase<br>250 VAC Phase to Neutral / Ground   | 440 VAC Phase to Phase<br>250 VAC Phase to Neutral / Ground  |
| Current Ratings                     | 3, 6, 10 & 20A  | 16, 25, 36, 50, 63 & 100A   | 20, 30, 45 & 60A   |
| Leakage current each Line to Ground | 2.0 mA / 3.0 mA (3 - 10A models)<br>3.5 mA / 5.5 mA (20A models)<br>@ 120 VAC 60Hz / 250 VAC 50Hz   | 1.62 mA / 2.82 mA<br>@ 120 VAC 60Hz / 250 VAC 50Hz  | 1.4 mA / 3.4 mA<br>@ 120 VAC 60Hz / 250 VAC 50Hz   |
| Electrical Setup                    | Single stage  | Single stage  | Single stage (AYP Models) & Dual stage (AYT Models)  |
| MECHANICAL PARAMETERS               |   |   |  |
| Mounting features                   | Screw mounting (flange or panel)  | Screw mounting (flange or inserts)  | Screw mounting (inserts)   |
| Termination inputs                  | .25 [6.3] spade terminals   | Terminal bolt & nut or DIN type terminals   | Terminal bolt & nut  |
| Termination outputs                 | .25 [6.3] spade terminals   | Terminal bolt & nut or DIN type terminals   | Terminal bolt & nut  |

|                             |   |  |   |
|-----------------------------|---|--|---|
| <b>TYPICAL APPLICATIONS</b> |   |  |   |
|                             | Wide band RFI suppression for general purpose 3-phase applications with low to middle RFI emissions including: <ul style="list-style-type: none"> <li>Vending machines</li> <li>Food service equipment</li> <li>Gaming machines</li> <li>Small machine tools</li> </ul> | Universal filter series equipped with 2 different connecting versions including: <ul style="list-style-type: none"> <li>Uninterruptible power supplies</li> <li>Industrial control systems</li> <li>Machine tools</li> </ul> | Wide band RFI suppression for industrial 3-phase applications with high noise emissions (AYP models) and lower noise emissions (ATY models) including: <ul style="list-style-type: none"> <li>Large machine tools</li> <li>Customer machinery</li> <li>Input filter for motor drives</li> </ul> |

<sup>2</sup> All models except 16AYA10, 30AYA10, 63AYA6, 63AYA6A and 100AYA6A



**3-PHASE FILTERS** (Continued)**FCD Series****BCF Series****AYC Series****ADT Series****Superior Performance**

UL Recognized

UL &amp; VDE

UL Recognized<sup>3</sup>

UL Recognized

**3-phase Delta External Power Line Filter for Frequency Converters**

- Very high attenuation & high insertion loss
- BS models optimized for very high insertion loss
- BS models suitable for infeed/regenerative (ER) applications
- Touch safe terminals provide easy connections and prevent inadvertent contact for safety

**Compact 3-phase Delta RFI Filters for Universal Applications**

- Compact, light weight book-form design
- Insulated, high quality safety terminals for input and output
- Good common and differential mode performance below 100kHz
- Touch safe terminals provide easy connections and prevent inadvertent contact for safety

**3-phase WYE RFI Power Line Filters for High Noise Applications**

- For 3-phase, four wire, WYE applications
- Very high attenuation with low leakage current
- Ideal for EMC troubleshooting and refurbishing in the field
- Touch safe terminals provide easy connections and prevent inadvertent contact for safety

**High Performance High Current 3-phase Delta RFI Filters**

- Designed for very high insertion loss for Delta three phase, three wire applications
- Available with common or differential mode coils

480 VAC Phase to Phase  
277 VAC Phase to Neutral / Ground480 VAC Phase to Phase  
277 VAC Phase to Neutral / Ground480 VAC Phase to Phase  
277 VAC Phase to Neutral / Ground480 VAC Phase to Phase  
277 VAC Phase to Neutral / Ground

6 to 230A

7 to 130A

16 to 200A

63, 100, 160 &amp; 200A

Varies from .26 mA/V for 6A model to 3.25 mA/V for FCD10BS models refer to catalog or website for full ratings voltage drop to virtual N to PE/V

30 mA  
@ 277 VAC 50Hz

Varies from 62 / 106 mA/V for 16A to 111 / 192 mA/V for 200A model refer to catalog or website for full ratings @ 120 VAC 60Hz / 277 VAC 50Hz

1.3A (ADT6)  
2.6A (63ADT6S)  
4.6A (100, 160, 200ADT6S)  
@ 277VAC 60HzSingle stage (B suffix models) &  
Dual stage (blank suffix models)

Single stage

Single stage

Single stage  
with feedthrough capacitors

Screw mounting (flange)

Screw mounting (flange)

Screw mounting (flange)

Screw mounting (flange)

DIN type terminals

DIN type terminals

DIN type terminals

Terminal bolt &amp; nut

DIN type terminals

DIN type terminals

DIN type terminals

Terminal bolt &amp; nut

Wide band RFI suppression for industrial 3-phase applications with very high RFI emissions including:

- Machine tools
- Elevators & escalators
- Frequency converters
- Industrial cabinets

Specially suited for regeneration systems of returning power. Wide banded RFI suppression for industrial 3-phase applications with very high RFI emissions including:

- 3-phase inverters & converters
- Variable speed motor drives
- Process automation equipment
- Elevators & escalators
- Machine tools

Wide band RFI suppression for WYE applications with very high RFI emissions including:

- Frequency converters with very long motor cables
- Machine tools

Ideal for industrial 3-phase applications with extremely high noise emissions including:

- High current motor drives
- Spot-welding machines
- Any difficult application with very difficult noise suppression

<sup>3</sup> All models except 200AYC10B

| FILTER TYPE | POWER ENTRY MODULES |            |          |
|-------------|---------------------|------------|----------|
| SERIES      | SRB Series          | EEJ Series | C Series |



| PERFORMANCE | General Purpose | Wide Range Performance |  |
|-------------|-----------------|------------------------|--|
|-------------|-----------------|------------------------|--|

|           |                 |                |                 |
|-----------|-----------------|----------------|-----------------|
| Approvals | UL / CSA / VDE* | UL / CSA / VDE | UL / CSA / VDE* |
|-----------|-----------------|----------------|-----------------|

|          |   |   |   |
|----------|---|---|---|
| Features | <b>Minimum Depth, Cost-effective Shielded Power Inlet Filter</b> <ul style="list-style-type: none"> <li>Wide range of capacitor values</li> <li>Attenuates coupled EMI up to 300MHz</li> <li>Minimal to low leakage current versions are suitable for patient and non-patient contact medical equipment.</li> <li>Full range of mounting and termination options including unique vertical and horizontal orientation slide in mounts eliminate the need for mounting hardware</li> </ul> | <b>Cost-effective Medium Performance Power Inlet Filter Including the EJH/EJHS, EJM/EJMS and EJS Models</b> <ul style="list-style-type: none"> <li>Enhanced two element circuit provides medium attenuation to 30MHz</li> <li>EJH &amp; EJHS models feature minimal leakage current suitable for patient contact medical applications</li> <li>EJM &amp; EJMS models feature low leakage current, suitable for most medical applications</li> <li>EJS models feature EEJ performance in snap-in mounting</li> </ul> | <b>Power Entry Module with Switch</b> <ul style="list-style-type: none"> <li>Two function power entry module combining a DPST switch and an IEC 60320-1 inlet</li> <li>Snap-in or flange mounting</li> <li>Available with or without a shielded general purpose or medical grade filter</li> <li>Two element circuit provides enhanced EMI attenuation</li> <li>Reduce OEM wiring time with optional pre-connected line and switch terminals</li> </ul> |
|----------|---|---|---|

#### ELECTRICAL PARAMETERS

|   |   |  |   |
|---|---|--|---|
| Max. voltage  | 250 VAC   | 250 VAC  | 250 VAC   |
| Current Ratings   | 15A*  | 1 to 20A   | 1, 3, 6, 10 or 15A*   |
| Leakage current each Line to Ground @ 120VAC 60Hz / 250VAC 50Hz | Varies by model from .2 $\mu$ A to .24mA<br><i>refer to catalog or website for full ratings</i> | EEJ/EJS Models: .22 mA / .38 mA<br>EJH Models: 2 $\mu$ A / 5 $\mu$ A<br>EJM Models: .01 mA / .017 mA | F models: .25 mA / .40 mA<br>H & non-filtered models: 2 $\mu$ A / 5 $\mu$ A |
| Electrical Setup  | Capacitive, 8 options available values from 33pF to 3300pF                                      | Single stage   | Single stage & unfiltered   |

#### MECHANICAL PARAMETERS

|                    |                            |                            |                            |
|--------------------|----------------------------|----------------------------|----------------------------|
| Mounting features  | Screw and snap-in mounting | Screw and snap-in mounting | Screw and snap-in mounting |
| Termination inputs | IEC 60320-1 C14            | IEC 60320-1 C14 or C20     | IEC 60320-1 C14            |

|                     |  |  |   |
|---------------------|--|--|---|
| Termination outputs | .25 [6.3] spade terminals, wire leads or PC board pins | .25 [6.3] spade terminals, wire leads or PC board pins | .187 [4.8] spade terminals ( <i>non-filtered</i> ) or .25 [6.3] spade terminals ( <i>Filtered</i> )<br><br>Available with or without pre-connected switch terminals |
|---------------------|--|--|---|

#### TYPICAL APPLICATIONS

Wide band RFI suppression for any application with very limited space for the suppression unit including:

- TV / Audio / Video
- Computing & accessories
- Home appliances
- Consumer electronics

*\*15A versions are tested by UL to US and Canadian requirements and are VDE approved at 10A*

Wide band RFI suppression for a wide range of applications including:

- TV / Audio / Video
- Computing & accessories
- Home appliances
- Medical equipment
- Gaming machines
- Exercise equipment
- Appliances

Wide band RFI suppression for applications with limited space including:

- TV / Audio / Video
- Computing & PC powers supplies
- Network & cabling systems
- Medical equipment

*\*15A versions are tested by UL to US and Canadian requirements and are VDE approved at 10A*

POWER ENTRY MODULES *(Continued)*

| CU Series | GG & HG Series | P Series | EJT Series |
|-----------|----------------|----------|------------|
|-----------|----------------|----------|------------|



| General Purpose   |   |   | Superior Performance  |
|---|---|---|---|
| UL / CSA / VDE*   | UL / CSA / VDE  | UL / CSA / VDE  | UL / CSA / VDE*   |
| <b>Compact 1U Height Switched Power Entry Module</b> <ul style="list-style-type: none"> <li>Designed for popular 1U (1 ¾") height rack mounted equipment</li> <li>Two function power entry module combining a SPST switch and an IEC 60320-1 inlet</li> <li>Snap-in, flange and flush mounting</li> <li>Reduce OEM wiring time with optional pre-connected line and switch terminals</li> </ul> | <b>Smallest Power Entry Module with Metric Fuse Holders</b> <ul style="list-style-type: none"> <li>Single or dual fusing</li> <li>Two element circuit provides basic attenuation</li> <li>Available with an internal ground-circuit inductor (C versions) to isolate equipment chassis from power line ground at radio frequencies</li> <li>Multiple termination and mounting styles</li> <li>Medical version as the HG Series identical to GG with dual fuse only</li> </ul> | <b>Versatile Power Entry Module with Small Footprint</b> <ul style="list-style-type: none"> <li>Snap-in or flange mounting</li> <li>Standard IEC 60321-1 C14 power inlet</li> <li>Both North American and metric fusing capabilities</li> <li>Two voltage selection options</li> <li>Optional DPST on/off switch</li> <li>Filter options for general purpose, medical and high-performance EMI filtering</li> </ul> | <b>High Performance Power Inlet Filter</b> <ul style="list-style-type: none"> <li>Superior EMI filter with IEC 60320-1 inlet</li> <li>Double three element differential mode circuit attenuates noise up to 1GHz</li> <li>Up to 15A with IEC 60320-1 C14</li> <li>20A rating with IEC 60320-1 C20</li> <li>Spade terminals or wire leads</li> </ul> |
| 250 VAC   | 250 VAC   | 250 VAC   | 250 VAC   |
| 1, 3, 6, 10 or 15A*   | 1, 3, 6 & 10A   | 3, 6 & 10A Filtered, 10A non-filtered   | 1, 3, 6, 10 or 15A  |
| Filtered models: .25 mA / .40 mA<br>Non-filtered models: 2 µA / 5 µA  | HG Models: 2 µA / 5 µA<br>GG Models: .25 mA / .42 mA  | H & L Models: 2 µA / 5 µA<br>S & Z Models: .25 mA / .50 mA  | .21 mA / .36 mA   |
| Single stage & unfiltered   | Single stage<br><i>(medical versions without y-capacitors)</i>  | Single stage  | Dual stage  |
| Screw and snap-in mounting  | Screw and snap-in mounting  | Screw and snap-in mounting  | Screw and snap-in mounting  |
| IEC 60320-1 C14   | IEC 60320-1 C14   | IEC 60320-1 C14   | IEC 60320-1 C14 or C20  |
| .187 [4.8] spade terminals<br><br>Available with or without pre-connected switch terminals  | .25 [6.3] spade terminals or wire leads   | .187 [4.8] spade terminals <i>(standard)</i> or .25 [6.3] spade terminals <i>(L &amp; Z)</i><br><br>Available with or without interconnection block for unfiltered versions   | .25 [6.3] spade terminals or wire leads   |
| Specially designed for 1U height equipment racks and can be used in space limited applications including: <ul style="list-style-type: none"> <li>Telecom</li> <li>Computing</li> <li>TV / Audio / Video</li> <li>Consumer electronics</li> </ul>  | Wide band RFI suppression for applications with very limited space including: <ul style="list-style-type: none"> <li>TV / Audio / Video</li> <li>Computing &amp; accessories</li> <li>Home appliances</li> <li>Medical equipment</li> <li>Gaming equipment</li> <li>Fitness equipment</li> </ul>  | Wide band RFI suppression in over 8000 configurations for a wide range of applications including: <ul style="list-style-type: none"> <li>TV / Audio / Video</li> <li>Computing &amp; accessories</li> <li>Home appliances</li> <li>Medical equipment</li> <li>Gaming equipment</li> <li>Fitness equipment</li> <li>HVAC</li> </ul>  | Specially designer to attenuate noise in the high frequency range up to 1GHz for various electronic applications including: <ul style="list-style-type: none"> <li>Plasma &amp; LCD TV's</li> <li>Computing &amp; accessories</li> <li>Instrumentation &amp; measurement</li> </ul>   |
| *15A versions are tested by UL to US and Canadian requirements and are VDE approved at 10A  |   |   | *15A versions are tested by UL to US and Canadian requirements and are VDE approved at 10A  |

## FOR MORE INFORMATION

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### TE Technical Support Center

|                   |                       |
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| USA:              | +1 (800) 522-6752     |
| Canada:           | +1 (905) 475-6222     |
| Mexico            | +52 (0) 55-1106-0800  |
| Latin/S. America: | +54 (0) 11-4733-2200  |
| Germany:          | +49 (0) 6251-133-1999 |
| UK:               | +44 (0) 800-267666    |
| France:           | +33 (0) 1-3420-8686   |
| Netherlands:      | +31 (0) 73-6246-999   |
| China:            | +86 (0) 400-820-6015  |

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\*as defined [www.te.com/leadfree](http://www.te.com/leadfree)

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