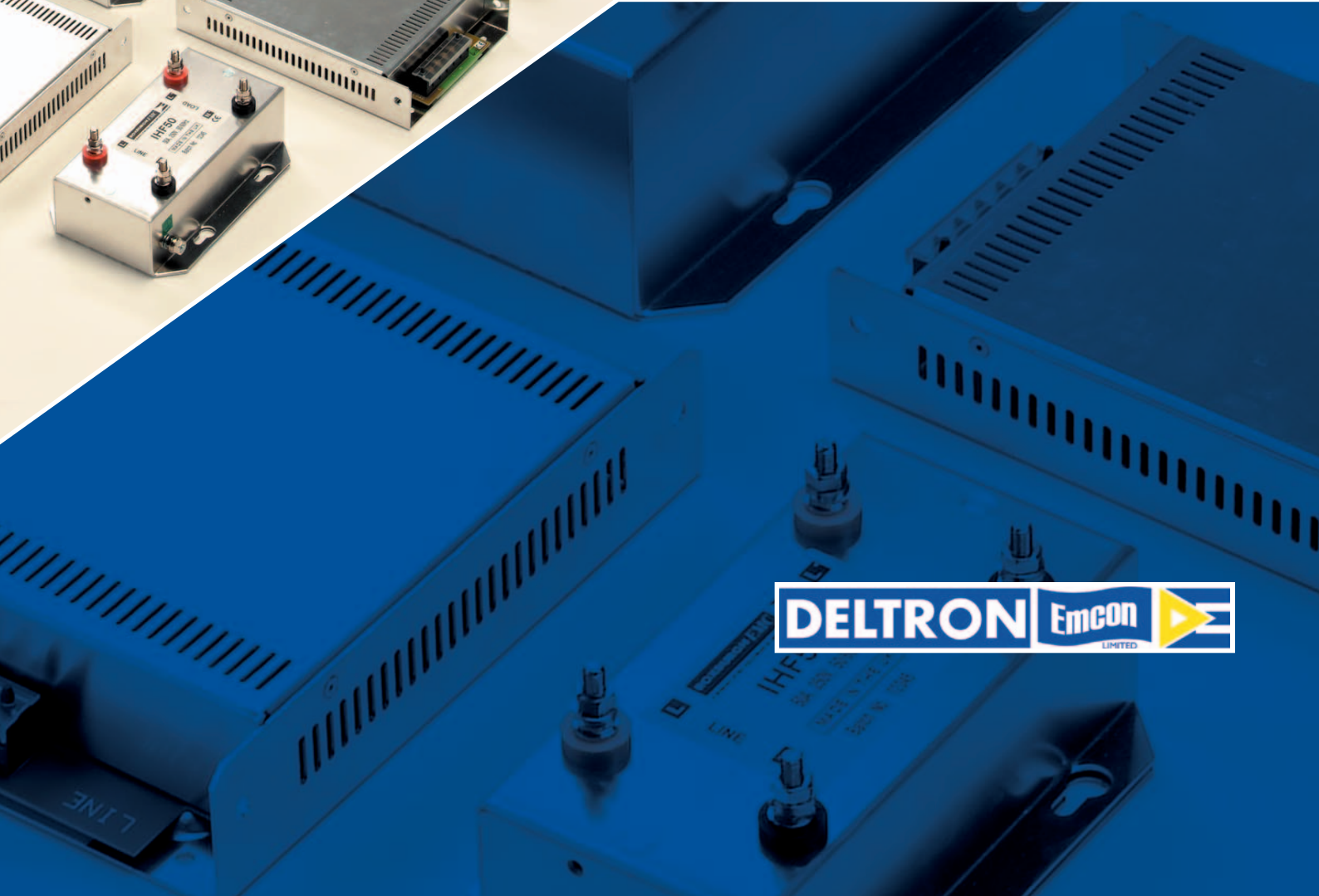


EMC FILTERS & COMPONENTS GUIDE





INDUSTRIAL FILTERS

Series: KMF Three Phase Industrial Mains Filters

- ▶ General Purpose Filter
- ▶ Medium Performance
- ▶ 500 / 520 / 600 Voltage Ratings
- ▶ Typical applications include: Machine Tools, Pumps, Fans etc.
- ▶ Bookend Mounting
- ▶ cUL Approved (File No. E191581)
- ▶ 6 – 330 Amps Current Ratings in 6 Case Sizes



Series: KMFA Three Phase High Performance Mains Filters

- ▶ High Performance
- ▶ 500 / 520 / Voltage Ratings
- ▶ Typical applications include: Inverter Drives, Servo Drives etc.
- ▶ 6 – 180 Amps Current Ratings
- ▶ Bookend Mounting
- ▶ cUL Approved (File No. E191581)



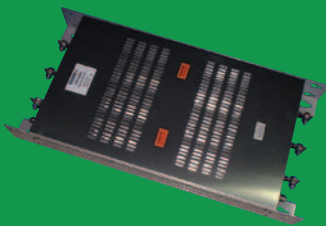
Series: MIF3 Three Phase Multi-Stage Mains Filters

- ▶ Very High Performance
- ▶ Multi-stage Filtering
- ▶ Dual Mounted – Flat and Side
- ▶ Suitable for long Cable Length between Drive and Motor
- ▶ 520 Voltage Rating
- ▶ 4 – 340 Amps Current Ratings
- ▶ cUL Approved (File No. E191581)



Series: MDF3 Three Phase Motor Drive Filters

- ▶ 480 Voltage Rating
- ▶ 8 – 220 Amps Current Ratings
- ▶ Typical Applications include: Inverter Drives, Servo Drives, High Noise Environments
- ▶ High Performance
- ▶ Stud Termination



Series: IDF3 Three Phase Industrial Drive Filters

- ▶ Very High Performance
- ▶ Compact Design
- ▶ Multi-stage Filtering
- ▶ Suitable for long Cable Length between Drive and Motor
- ▶ 520 Voltage Rating
- ▶ 180 and 340 Amps Current Ratings
- ▶ Footprint Mounted
- ▶ Can be built in parallel to give higher current



Series: HCF High Current Three Phase Mains Filters

- ▶ 480 Voltage Rating
- ▶ 600, 1000 and 1600 Amps
- ▶ Typical Applications include: Windmills, Gensets, Pumping Stations
- ▶ Compact Design
- ▶ Busbar Connection



Series: IHF4 Three Phase and Neutral Mains Filters

- ▶ 440 Voltage Rating
- ▶ 8 – 100 Amps Current Ratings
- ▶ Low Leakage (<3.5mA)
- ▶ General Purpose
- ▶ Medium Performance
- ▶ Applications where neutral is needed





Series: MDF Single Phase Motor Drive Filters

- ▶ 250 Voltage Rating
- ▶ 6 – 50 Amps Current Ratings
- ▶ Typical Applications include: Inverter Drives, Servo Drives, High Noise Environments
- ▶ High Performance
- ▶ Stud Termination

Series: MIF Single Phase Multi-Stage Filters

- ▶ Very High Performance
- ▶ Multi-stage Filtering
- ▶ Suitable for long Cable Length between Drive & Motor
- ▶ 250 Voltage Rating
- ▶ 3 – 32 Amps Current Ratings
- ▶ Footprint Mounted
- ▶ cUL Approved (File No. E191581)

Series: IHF Single Phase General Purpose Mains Filters

- ▶ 250 Voltage Rating
- ▶ 18 – 50 Amps
- ▶ Low Leakage (<3.5mA)
- ▶ General Purpose
- ▶ Medium Performance

Custom Solutions

With over 30 years experience in designing EMC solutions, Deltron Emcon can offer custom solutions to optimise filter performance and cost, comply with customer pre-determined space and/or layout requirements, and meet customer requirements regarding mounting and connection methods.

As a necessary part of the Deltron Emcon EMC compliance service, all of our EMC solutions are supported by our laboratories and test sites, fitted out comprehensively for both conducted and radiated emissions testing.

Matrix Harmonic Filters

Deltron Emcon has now been appointed the UK distributor for the MTE range of Matrix Harmonic Filters. This range of product reduces harmonic distortion that occurs with the use of a non-linear load (variable speed drive). With the increasing demand for cost effective motor driven systems, the use of variable speed drives is becoming more common place and unfortunately due to the way they operate, as well as causing EMC problems they also cause problems with low frequency harmonics.

Matrix Harmonic filters reduce harmonic problems to an acceptable level, and are available in a range of sizes dependent on the application. They offer an alternative to a 12 or 18 pulse front-end drive solution, and resolve problems with phase imbalance of between 1 and 3% under real operating conditions.

All products are both CE and UL marked

Line/Load Reactors

Deltron Emcon offer an extensive range of both 3% and 5% line load reactors up to 1125 amps in size, for use in the drives market, to reduce harmonics, filter power line disturbances, reduce surge currents and reduce dv/dt.

In addition to being used on the input of the drive they can also be used on the output to reduce problems with long cable runs and thus prolong the life of the motor.

All products are both CE and UL marked.

EQUIPMENT FILTERS

Series: RID IEC Inlet Filters

A general purpose inlet filter giving good performance for both common mode and differential mode interference.

- ▶ 250 Voltage Rating
- ▶ 1 – 10 Amps Current Ratings
- ▶ Approvals: UL, CSA and TUV

Typical applications include: personal computers and peripherals, digital equipment, measuring instruments, monitors and display units, vending machines, gaming machines, printers and copiers.





Series: RIX IEC Inlet Filters

A very compact inlet filter giving good performance for both common mode and differential mode interference.

- ▶ 250 Voltage Rating
- ▶ 1 – 6 Amps Current Ratings
- ▶ Approvals: UL, CSA and TUV
- ▶ PCB Mounting

Typical applications include: personal computers and peripherals, digital equipment, measuring instruments, monitors and display units, vending machines, gaming machines, printers and copiers.



Series RIRIEC Inlet Filters with Fuse

The RIR range of inlet filter with fuseholder gives good performance for both common mode and differential mode interference, with a metal case to give a good shielding effect.

- ▶ 250 Voltage Rating
- ▶ 2 – 6 Amps Current Ratings
- ▶ Approvals: UL, CSA and TUV

Typical applications include: personal computers and peripherals, communication equipment, digital equipment, measuring and testing equipment, monitors and display units.



Series: RIP / RIQIEC Inlet Filters Switched and Fused

Available in both screw-fixed (RIP) and snap-in (RIQ) versions, these inlet filters have a double pole ON/OFF switch. They have a good performance for both common mode and differential mode interference, with a metal case to give a good shielding effect.

- ▶ 250 Voltage Rating
- ▶ 2 – 6 Amps Current Ratings
- ▶ Screw Fix (RIP) or Snap-In (RIQ) Mounting
- ▶ Approvals: UL, CSA and TUV

Typical applications include: communications equipment, digital equipment, measuring and testing instruments, monitors and display units.



Series: IS IEC Inlet Filters Twin Fused

The IS range of inlet filters is available with double fuse and screw-fixed. They have a good performance for both common mode and differential mode interference, with a metal case to give a good shielding effect.

- ▶ 250 Voltage Rating
- ▶ 2, 4 and 6 Amp Current Rating
- ▶ Screw Fix Mounting
- ▶ UL Approved

Typical applications include: digital equipment, measuring and test equipment and communication equipment



Series: RES5 Chassis Mounted Single Stage Filters

The RES5 range of single stage filters offer good performance for both common mode and differential mode interference.

- ▶ 250 Voltage Rating
- ▶ 3 - 20 Amps Current Ratings
- ▶ Approvals: UL, CSA and TUV

Typical applications include: communications equipment, measuring and test instruments, industrial equipment e.g. UPS, inverters, converters, printers, copiers and fax machines.



Series: RES3 Chassis Mounted Two Stage Filters

The RES3 range of two stage filters offer a very high performance for both common mode and differential mode interference, in a very compact size.

- ▶ 250 Voltage Rating
- ▶ 3 - 5 Amps Current Ratings
- ▶ Approvals: UL, CSA and TUV

Typical applications include: digital equipment, point-of-sale equipment, printers, copiers, fax machines, inverters, converters, UPS, test and measurement instruments.



Series: CMF24 Chassis Mounted Single Stage Filters

The CMF24 range of single stage filters offers an economic solution for general purpose filter requirements.

- ▶ 250 Voltage Rating
- ▶ 1 - 30 Amps Current Ratings
- ▶ Approvals: UL approved



**Series: CMF64 Chassis Mounted Single Stage Filters**

The CMF64 range of single stage filters offers high performance filtering.

- ▶ 250 Voltage Rating
- ▶ 1 - 10 Amps Current Ratings
- ▶ Approvals: UL approved

**Series: CMF34 Chassis Mounted Single Stage Filters**

The CMF34 range of single stage filters has been designed to provide an economic solution to general purpose filtering, but has additional capacitance offering higher symmetrical attenuation in high frequency.

- ▶ 250 Voltage Rating
- ▶ 1 - 30 Amps Current Ratings
- ▶ Approvals: UL approved

**Series: CMF44 Chassis Mounted Two Stage Filters**

The CMF44 range of two stage filters offers higher common mode attenuation.

- ▶ 250 Voltage Rating
- ▶ 1 - 20 Amps Current Ratings
- ▶ Approvals: UL approved

**Series: CMF45 Chassis Mounted Two Stage Filters**

The CMF45 range of two stage filters offers increased common mode and differential mode attenuation at high frequency.

- ▶ 250 Voltage Rating
- ▶ 1.6 - 5 Amps Current Ratings
- ▶ Approvals: UL approved

**Series: CF01 PCB Mounted Filters**

- ▶ 250 Voltage Rating
- ▶ 1 Amp Current Rating
- ▶ Approvals: UL

**Series: CF01 PCB Mounted Filters**

- ▶ 250 Voltage Rating
- ▶ 1 Amp Current Rating
- ▶ Approvals: UL

**Series: CF03 / CF04 PCB Mounted Filters**

CF03 offers increased symmetrical attenuation at high frequency than CF02
CF04 offers increased symmetrical attenuation at medium frequency than CF06

- ▶ 250 Voltage Rating
- ▶ 0.8 to 16 Amp Current Rating





Series: RX730 Compact Filters

The RX730 range of general purpose filters combine a low profile compact case, with good performance and flexible mounting.

- ▶ 250 Voltage Rating
- ▶ 1 – 6.5 Amp Current Rating
- ▶ General Purpose
- ▶ Low Profile Compact Case
- ▶ Approvals: UL, CSA, VDE



Series: SDC Cylindrical Can Filters

Typical applications for the SDC range of filters are for protecting digital and logic circuitry from mains borne transient and communications equipment, from mains conducted radio frequency interference. By reversing the mains and load connections, the filter can also be effectively used to suppress radio frequency interference generated by equipment.

- ▶ 250 Voltage Rating
- ▶ 2.5 - 25 Amp Current Rating
- ▶ Stud Mounting



Series: SDC Cylindrical Can Filters

Typical applications for the SDC range of filters are for protecting digital and logic circuitry from mains borne transient and communications equipment, from mains conducted radio frequency interference. By reversing the mains and load connections, the filter can also be effectively used to suppress radio frequency interference generated by equipment.

- ▶ 250 Voltage Rating
- ▶ 2.5 - 25 Amp Current Rating
- ▶ Stud Mounting



Series: PMF In Line Filter

Free-standing IEC320 style high performance filter network including an earth line choke and across the line VDR. For use with computers and instrumentation which may be subject to high levels of mains borne interference and voltage spikes.

- ▶ Single Phase
- ▶ 250 Voltage Rating
- ▶ 6 Amp Current Rating



Series: DRF Din Rail Mounted Filter

The DRF range is suitable for 'Top Hat' rails. The filtering performance has been optimised to provide effective filtering in the frequency range from 150kHz to 30mHz, with a maximum temperature rise of 30° at full load.

These filters can be used for all AC and DC applications up to line voltage and frequency, and also include voltage spike protection across the line.

- ▶ 250 Voltage Rating
- ▶ 1 – 8 Amps Current Rating



Series: DVS in Rail Voltage Suppressor

The DVS range is available with 24V, 48V, 110V and 240V nominal operating voltages, which are suitable for mounting on 'Top Hat' Din Rails.



Series: C High Current Chokes

This range of high current chokes is for use in custom designed suppression circuits. Typical applications include the suppression of RFI generated by motors and switched mode power supplies etc. All chokes are fully encapsulated and features single M4 threaded insert fixing.

- ▶ 500 Voltage Rating
- ▶ 10, 15 and 25 Amps Current Rating
- ▶ Flying Leads Connection





Series: CMV Common Mode Chokes

The CMV series is available from 0.5A, 40mH up to 8A 0.7mH and has a maximum temperature rise of 30°C at full load. They can be used for all AC and DC applications up to line voltage and frequency.

- ▶ 250 Voltage Rating
- ▶ 0.5 – 8 Amps Current Rating
- ▶ PCB Mounted
- ▶ Line Frequency DC to 440Hz



Series: SMV Differential Mode Chokes

The SMV series is available from 0.5A, 2.1mH up to 8A 0.085mH and has a maximum temperature rise of 30°C at full load. They can be used for all AC and DC applications up to line voltage and frequency.

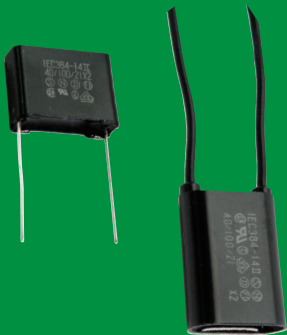
- ▶ 250 Voltage Rating
- ▶ 0.5 – 8 Amps Current Rating
- ▶ PCB Mounted
- ▶ Line Frequency DC to 440Hz



Series: SFI 12 Open Toroidal Chokes

Toroidal suppression chokes designed for triac control circuits used in speed control, lighting dimmer and similar applications.

- ▶ Power Handling 100W, 250W, 400W and 500W (at 240V)



Series: XE / XEB RC Network

RC Networks consisting of a capacitor in series with a high quality film resistor. Applications include suppression when switching reactive loads and as a snubber network in SCR and triac protection.

- ▶ 250 Voltage Rating
- ▶ PCB Mounted / Flying Leads
- ▶ UL, CSA, VDE approvals



Series: CRH / 3CRH Spark Quencher

Single and three-phase contact suppressors designed to reduce arcing when switching reactive loads. These spark quenchers feature a high overload capacity and are non-polarised, allowing use in both ac and dc circuits. The networks may be used in industrial equipment featuring high power phase control circuitry. They offer a high degree of protection for semiconductor devices such as thyristors and solid state relays, and will improve the dv/dt ratio.

- ▶ Single Phase or Three Phase
- ▶ 500 Voltage Rating
- ▶ Flying Leads

SURGE PROTECTION DEVICES

The purpose of installing surge protection devices is, that with the correct and functional protection at the suitable place, a partial or total collapse of the system is prevented.

Causes of over-voltage include:

- Atmospheric discharges
- Errors in energetic systems
- Switching (connecting and disconnecting)
- Electric pull (electrical, train, tram etc.)

Deltron Emcon can now offer an extensive range of solutions for the following applications:

- ▶ Signal Line Protection Units
- ▶ DC Power Supply
- ▶ Low Voltage Power Distribution Systems





MEDIA PATCHING
PRODUCTS GUIDE



PRODUCTION
TOOLING GUIDE



COMPONENTS,
CONNECTORS
& CABLING GUIDE

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