EMC components

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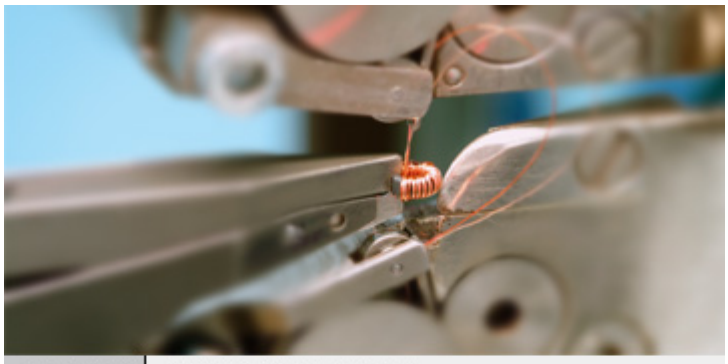
# Do not disturb



APPLICATION | INDUSTRIAL ELECTRONICS

Many loads in industrial electronics operate on pulsed currents. Pulse width modulation produces harmonics of varying amplitude and frequency that interfere with other loads. EMC filters of standard or customer-specific design reduce spurious emissions from these sources to uncritical levels. EPCOS also offers data line filters for industrial controllers considered susceptible to electromagnetic interference.

All power electronics equipment used in industrial and traction applications represents a major source of interference and thus a major threat to electromagnetic compatibility. "As more and more drives are controlled by frequency converters, the importance of EMC components from EPCOS is growing", points out Ingo Otten, product marketing director for EMC filters. But not only frequency-controlled drives need effective noise suppression. Other electrical equipment generates RF pulses that can harm power networks as conducted or airborne interference. Typical culprits are uninterruptible power supplies, welding equipment and switch-mode power supplies with high outputs used in the base stations of mobile phone networks. The consequences of inadequate interference suppression are notorious. Operation of communication and control equipment can be seriously impaired right up to total failure. If assembly lines and fully automated machinery are then brought to a standstill, the resulting loss of production - such as in the automobile industry - can cause damage running into the millions. Here a remedy can only be provided by proper EMC filters. "Thanks to our many years of acclaimed experience in EMC, we can always offer the right filter", says Otten. The EPCOS range includes standard filters for currents up to 2500 A. Customer-specific filters, e.g. for traction applications, can even cope with currents up to 6000 A.

## Applications & Cases

"EPCOS offers economical solutions for customer-specific designs as well that prevent electromagnetic interference from becoming a problem."

INGO OTTEN

Product marketing director, EMC filters

"Smaller, lighter, more economical" is how Otten summarizes current trends in EMC filter design. Every millimeter counts, because filters are often mounted directly on machinery where space is limited anyway. Ever more compact models are needed for installation in switching cabinets to obtain maximum packaging density. EPCOS has therefore added the new G and H series to its tried and tested SiFi®-family of EMC filters. This now covers an extended current range up to 36 A, and types for 60 A will follow shortly. "For four-line filters with neutral conductors, we can now offer low-cost variants of even more compact design that can handle currents above 250 A", as Otten outlines developments. The new filter series are also UL/CSA-approved.