

## Single-Phase EMI/RFI Filters

### Applications

- Power supplies
- AC sensors
- Medical equipment
- Automated machinery

### Benefits

- Minimize RF interference
- Protect equipment from voltage spikes originating from surrounding devices
- Prolong machinery life
- Compact design

### Features

- Rated Current: 3 to 20A
- DIN rail mounting
- High differential and common mode attenuation



## Maximize Power Supply Protection with Enerdoor's Single-Phase EMI Filters

### *Introduction*

Explore a recent success story through this enlightening white paper, showcasing the effectiveness of an EMI/RFI filter in safeguarding the power supply within an automated machine. In the realm of modern machinery, the operation of switching devices generates radio frequency (RF) noise, posing a potential threat to the power line of the facility. While the installation of an EMI/RFI filter successfully blocks this RF noise, its protective capabilities extend beyond, shielding equipment from external RF interference and voltage spikes originating from neighboring machinery.

### *The Challenge*

A power supply demands clean power to ensure optimal sensor life and machinery performance. In expansive facilities housing diverse equipment, the challenge lies in combating RF interference and voltage spikes generated by various devices, potentially affecting other interconnected equipment. Picture a power supply nestled within a machine amid a sea of large equipment—how might the output supply and sensors withstand such an environment?

### *The Solution*

Mitigate the risk of interference by strategically installing an EMI/RFI filter on the input side of the power supply. Enerdoor's proven FIN26 and FIN27 series excel in this application, ensuring the AC port remains free of high-frequency electrical noise.

## The Result

The implementation of a compact EMI/RFI filter on the power supply input yields multifaceted benefits. It significantly reduces the risk of noise interference in the field, extends component life, minimizes equipment downtime, and ultimately leads to cost savings. Whether choosing to mount it on a din-rail or opt for panel mounting, Enerdoor offers the ideal single-phase solution tailored to your needs.



### Benefits of Enerdoor EMI/RFI Filters:

**Compliance:** Ensure your electrical and electronic products meet national and international EMC standards

**Interference Reduction:** Effectively reduce electromagnetic interference, safeguarding the integrity of sensitive equipment

**Prevent Device Failures:** Mitigate the risk of failures in PLCs, sensors, encoders, and PCs

**Component Longevity:** Increase the lifespan of sensitive components within your systems

**Downtime Prevention:** Guard against production downtime by minimizing the impact of interference

**Disturbance Reduction:** Alleviate disturbances in other machines and buildings

**Attenuation Excellence:** Provide outstanding differential and common mode attenuation

## About Enerdoor

Established in 1992, The Enerdoor Group stands as a global leader in developing and producing power quality and electromagnetic solutions for automated machinery and industrial plants. Our diverse product range encompasses EMI-RFI filters, motor protection filters, harmonic filters, line reactors, surge arresters, voltage stabilizers, and customized solutions. Notably, Enerdoor distinguishes itself with a global distribution and R&D network that provides flat-rate on-site CE Certification at a fixed fee, underscoring our commitment to finding effective solutions.

For further details, please connect with your local Enerdoor representative. Elevate your power supply protection with Enerdoor's innovative solutions.