

EMI-RFI Filters

Applications

- Automotive manufacturing
- Food and beverage
- Warehouses retrieval systems
- Paper handling
- Pharmaceutical

Benefits

- Increased productivity
- Decreased maintenance costs
- Customer satisfaction

Features

- 5-Year warranty
- Excellent attenuation
- Low leakage current
- Cost effective



EMI-RFI Filters and Material Handling Equipment

Introduction

This white paper discusses a recent Enerdoor success story using an EMI-RFI filter in conjunction with material handling equipment that used VFDs and servo drives to control various motors within the system.

Today, material handling equipment is used in many different markets, including automotive, pharmaceutical, chemical, food & beverage, grocery and retail warehouses.

All electric or electronic devices have connections that are potential sources for electromagnetic or radio frequency interference (EMI-RFI). Both are known as electrical noise which may cause disturbance and unexpected issues to occur in normal operations, also known as “Ghost” problems. Audible noise or leaking water are examples of problems that a person can hear or see. “Electrical noise,” however, is the type of problem that can only be solved after careful analysis, using very expensive instruments.

Material handling equipment manufacturers are often challenged to achieve CE Certification, because their drives generate high frequency noise that often cause malfunctions with sensors, encoders, HMI screens and e-stops within systems, as well as with other nearby machines.

The Challenge

A manufacturer of material handling equipment received their first PO from South Korea with a very short lead time requested. Because they had no prior experience with the mandatory Korean regulations, they were seeking Enerdoor’s expertise so their design would be correct the first time.

The Solution

The manufacturer requested an on-site, EMC compliance test with Enerdoor's mobile laboratory.

Working in conjunction with the customer and our local Rep and Distributor partners, Enerdoor engineers performed the conducted emission test using a standard EMI-RFI filter solution that Enerdoor brought on site.



Enerdoor brings a wide variety of EMI-RFI filter models to each test site, in order to ensure that our guarantee of “You pass before we leave the facility,” is fulfilled. Enerdoor tested the machine with the EMI filter at the customer’s facility, and the material handling machine immediately passed the emissions test and all additional tests.

The Result

The manufacturer’s decision to take advantage of Enerdoor’s recommendation during the design stage combined with utilizing Enerdoor’s mobile laboratory for compliance testing, saved both time and more importantly, money. The potential compliance failure of the machine would have compromised the project deadline.

This example of teamwork allowed the customer to bring a product to the global market faster, while being in complete compliance and at a reduced total cost.

About Enerdoor

Enerdoor is a Global leader in the development and manufacturing of EMI-RFI filters, motor protection solutions and other power quality products and services. In addition to EMC filter solutions, Enerdoor provides flat rate on-site CE Certification and Safety testing. We are committed to providing the highest level of customer support possible and bringing value to our customers.