

1. Record Nr.	UNINA9910831194303321
Autore	Luszcz Jaroslaw
Titolo	High Frequency Conducted Emission in AC Motor Drives Fed By Frequency Converters : Sources and Propagation Paths // Jaroslaw Juszcz
Pubbl/distr/stampa	[Place of publication not identified] : , : John Wiley and Sons, Inc. : , : Wiley-IEEE Press, , 2018 [Piscataqay, New Jersey] : , : IEEE Xplore, , [2018]
ISBN	1-119-38896-1 1-119-38895-3 1-119-38897-X
Descrizione fisica	1 online resource (xxxviii, 241 pages) : illustrations
Disciplina	621.85
Soggetti	Variable speed drives Electromagnetic compatibility
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Provides a concise and thorough reference for designing electrical and electronic systems that employ adjustable speed drives Electrical and electronic systems that employ adjustable speed drives are being increasingly used in present-day automation applications. They are considered by many application engineers as one of the most interfering components, especially in a contemporarily faced industrial environment. This book fills the gap between the high-level academic knowledge in the electromagnetic compatibility (EMC) field and the recommended practical rules for assuring electromagnetic compatibility margin. It focuses on finding and formulating the issues that often occur with the generation and propagation of conducted emission in AC motor drives fed by frequency converters, rather than proposing specific solutions for dealing with them. It also features explanations of selected academic backgrounds of EMC and presents practical case studies.' The book starts with an introduction to conducted emission in adjustable speed drives. It then goes on to offer in-depth chapters

covering conducted emission origins in switch-mode power converters; conducted emission generation by frequency converter in adjustable speed drives (ASD); propagation of motor side originated conducted emission towards the power grid; modeling of conducted emission in ASD; broadband behavior of ASD components; and impact of a motor feeding cable on CM currents generated in ASD. In addition, this resource: -Presents state-of-the-art analysis of undesirable high frequency phenomena accompanying AC motor speed control - Discusses the fundamentals of phenomena of electromagnetic interference (EMI) generation in switch mode static converters -Provides methodology of modeling-conducted EMI generation and propagation in ASD High Frequency Conducted Emission in AC Motor Drives Fed By Frequency Converters: Sources and Propagation Paths will appeal to scholars and a wide range of professionals who are involved in the stages of development, design, and application of adjustable speed drives in accordance with ever-increasing EMC requirements.

---