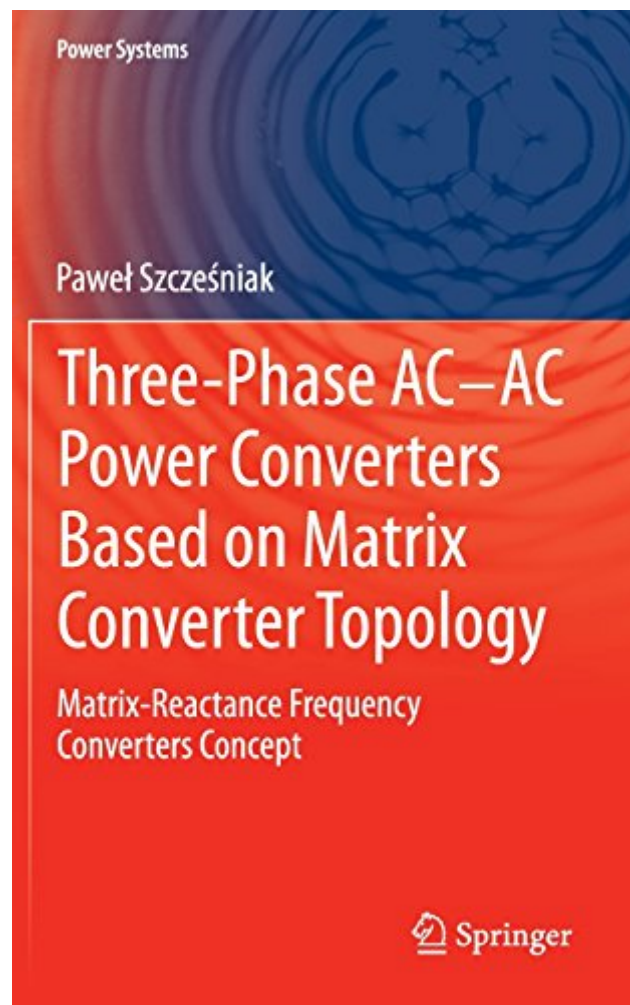


Three-phase AC-AC Power Converters Based on Matrix Converter Topology: Matrix-reactance frequency converters concept (Power Systems) PDF



Download



Read Online

Three-phase AC-AC Power Converters Based on Matrix Converter Topology: Matrix-reactance frequency converters concept (Power Systems) by Pawel Szczesniak ISBN 1447148959

AC voltage frequency changes is one of the most important functions of solid state power converters. The most desirable features in frequency converters are the ability to generate load voltages with arbitrary amplitude and frequency, sinusoidal currents and voltages waveforms; the possibility of providing unity power factor for any load; and, finally, a simple and compact power

circuit. Over the past decades, a number of different frequency converter topologies have appeared in the literature, but only the converters with either a voltage or current DC link are commonly used in industrial applications. Improvements in power semiconductor switches over recent years have resulted in the development of many structures of AC-AC converters without DC electric energy storage. Such converters are an alternative solution for frequently recommended systems with DC energy storage and are characterized by a lower price, smaller size and longer lifetime. Most of the these topologies are based on the structure of the matrix converter.

Three-Phase AC-AC Power Converters Based On Matrix Converter Topology: Matrix-reactance frequency converters concept presents a review of power frequency converters, with special attention paid to converters without DC energy storage. Particular attention is paid to nine new converters named matrix-reactance frequency converters which have been developed by the author and the team of researchers from Institute of Electrical Engineering at the University of Zielona Góra. The topologies of the presented matrix-reactance frequency converters are based on a three-phase unipolar buck-boost matrix-reactance chopper with source or load switches arranged as in a matrix converter. This kind of approach makes it possible to obtain an output voltage greater than the input one (similar to that in a matrix-reactance chopper) and a frequency conversion (similar to that in a matrix converter).

Written for researchers and Ph.D. students working in the field of power electronics converters and drive systems, *Three-Phase AC-AC Power Converters Based On Matrix Converter Topology: Matrix-reactance frequency converters concept* will also be valuable to power electronics converter designers and users; R&D centers; and readers needing industry solutions in variable speed drive systems, such as automation and aviation.

Three-phase AC-AC Power Converters Based on Matrix Converter Topology: Matrix-reactance frequency converters concept (Power Systems) Review

This Three-phase AC-AC Power Converters Based on Matrix Converter Topology: Matrix-reactance frequency converters concept (Power Systems) book is not really ordinary book, you have it then the world is in your hands. The benefit you get by reading this book is actually information inside this reserve incredible fresh, you will get information which is getting deeper an individual read a lot of information you will get. This kind of Three-phase AC-AC Power Converters Based on Matrix Converter Topology: Matrix-reactance frequency converters concept (Power Systems) without we recognize teach the one who looking at it become critical in imagining and analyzing. Don't be worry Three-phase AC-AC Power Converters Based on Matrix Converter Topology: Matrix-reactance frequency converters concept (Power Systems) can bring any time you are and not make your tote space or bookshelves' grow to be full because you can have it inside your lovely laptop even cell phone. This Three-phase AC-AC Power Converters Based on Matrix Converter Topology: Matrix-reactance frequency converters concept (Power Systems) having great arrangement in word and layout, so you will not really feel uninterested in reading.