





Special Issue Reprint

High-Efficiency and High-Performance Power Electronics for Power Grids and Electrical Drives

www.mdpi.com/books/reprint/7568

Edited by Massimiliano Luna

ISBN 978-3-0365-8080-7 (Hardback) ISBN 978-3-0365-8081-4 (PDF)



This reprint collects papers addressing valuable techniques to improve the efficiency and performance of power electronics when applied to power grids and electrical drives. The proposed techniques leverage several approaches, e.g., advanced converter topologies, innovative control algorithms, and wide bandgap power devices. Diverse application domains were covered: interfacing Renewable Energy Sources (RESs) and Energy Storage Systems (ESSs) with AC or DC microgrids; recharging ESSs in electric vehicles; increasing performance in variable speed electrical drives and direct online induction motors; applying electrical loss minimization techniques to microgrids based on RESs. After a short description of each contribution, some perspectives for future developments are also briefly given.





MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.

MDPI AG St. Alban-Anlage 66 4052 Basel Switzerland Tel: +41 61 683 77 34 www.mdpi.com/books books@mdpi.com

