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Descrizione fisica	1 online resource (1 volume) : illustrations
Disciplina	621.313
Soggetti	Electric current converters
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Formato	Materiale a stampa
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Introduction -- Dynamic analysis and control design preliminaries -- Dynamic modeling of direct-on-time control -- Dynamic modeling of current-mode control -- Dynamic modeling of current-output converters -- Control design issues in voltage-fed DC-DC converters -- Introduction to current-fed converters -- Dynamic modeling of DDR-controlled CF converters -- Dynamic modeling of PCM/PVM-controlled CF converters -- Introduction to photovoltaic generator -- Photovoltaic generator interfacing issues -- Dynamic modeling of three-phase inverters -- Control design of grid-connected three-phase inverters -- Reduced-order closed-loop modeling of inverters -- Multivariable closed-loop modeling of inverters -- Impedance-based stability assessment -- Dynamic modeling of three-phase active rectifiers.
Sommario/riassunto	Filling the need for a reference that explains the behavior of power electronic converters, this book provides information currently unavailable in similar texts on power electronics. Clearly organized into four parts, the first treats the dynamics and control of conventional converters, while the second part covers the dynamics and control of DC-DC converters in renewable energy applications, including an

introduction to the sources as well as the design of current-fed converters applying duality-transformation methods. The third part treats the dynamics and control of three-phase rectifiers in voltage-sourced applications, and the final part looks at the dynamics and control of three-phase inverters in renewable-energy applications. With its future-oriented perspective and advanced, first-hand knowledge, this is a prime resource for researchers and practicing engineers needing a ready reference on the design and control of power electronic converters.
