1. Record Nr. UNISALENTO991002227229707536

Autore	Gutkind, E. A.
Titolo	Comunità ed ambiente / E. A. Gutkind
Pubbl/distr/stampa	Milano : Edizioni di Comunità, 1960
Descrizione fisica	121 p. ; 21 cm.
Altri autori (Persone)	Di Benedetto, Gianni Buber, Martin <1878-1965>
Disciplina	301.3
Soggetti	Comunità
Lingua di pubblicazione	Italiano
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Trad. G. Di Benedetto Pref. M. Buber Tit. orig.: Community and environment

2. Record Nr. UNINA9910824701803321

Autore	Lin Xiangning
Titolo	Electromagnetic transient analysis and novel protective relaying techniques for power transformer / / Xiangning Lin, Jing Ma, Qing Tian, Hanli Weng
Pubbl/distr/stampa	Singapore : , : John Wiley & Sons, Inc., , 2014 [Piscataqay, New Jersey] : , : IEEE Xplore, , [2015]
ISBN	1-118-65385-8 1-118-65383-1 1-118-65384-X
Descrizione fisica	1 online resource (341 p.)
Classificazione	TEC031000
Disciplina	621.31/4
Soggetti	Electric relays Electric transformers - Protection Transients (Electricity)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
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Sommario/riassunto

"An advanced level examination of the latest developments in power transformer protection This book addresses the technical challenges of

transformer malfunction analysis as well as protection. One of the current research directions is the malfunction mechanism analysis due to nonlinearity of transformer core and comprehensive countermeasures on improving the performance of transformer differential protection. Here, the authors summarize their research outcomes and present a set of recent research advances in the electromagnetic transient analysis, the application on power transformer protections, and present a more systematic investigation and review in this field. This research area is still progressing, especially with the fast development of Smart Grid. This book is an important addition to the literature and will enhance significant advancement in research. It is a good reference book for researchers in power transformer protection research and a good text book for graduate and undergraduate students in electrical engineering.Chapter headings include: Transformer differential protection principle and existing problem analysis; Malfunction mechanism analysis due to nonlinearity of transformer core; Novel analysis tools on operating characteristics of Transformer differential protection; Novel magnetizing inrush identification schemes; Comprehensive countermeasures on improving the performance of transformer differential protection An advanced level examination of the latest developments in power transformer protection Presents a new and systematic view of power transformer protection, enabling readers to design new models and consider fresher design approaches Offers a set of approaches to optimize the power system from a microeconomic point of view "--
"This book addresses the technical challenges of transformer malfunction analysis as well as protection"--