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Autore	Kasikci Ismail
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Nota di contenuto	Front Matter -- Introduction -- Electrical Systems -- Design of DC Current Installations -- Smart Grid -- Project Management -- Three-Phase Alternating Current -- Symmetrical Components -- Short-Circuit Currents -- Relays -- Power Flow in Three-Phase Network -- Substation Earthing -- Protection Against Electric Shock -- Equipment for Overcurrent Protection -- Current Carrying Capacity of Conductors and Cables -- Selectivity and Backup Protection -- Voltage Drop Calculations -- Switchgear Combinations -- Compensation for Reactive Power -- Lightning Protection Systems -- Lighting Systems -- Generators -- Transformer -- Asynchronous Motors -- Questions About Book -- References -- Index
Sommario/riassunto	A one-stop resource on how to design standard-compliant low voltage electrical systems This book helps planning engineers in the design and application of low voltage networks. Structured according to the type of electrical system, e.g. asynchronous motors, three-phase networks, or lighting systems, it covers the respective electrical and electrotechnical fundamentals, provides information on the implementation of the relevant NEC and IEC standards, and gives an overview of applications in industry. Analysis and Design of Electrical

Power Systems: A Practical Guide and Commentary on NEC and IEC 60364 starts by introducing readers to the subject before moving on to chapters on planning and project management. It then presents readers with complete coverage of medium- and low-voltage systems, transformers, asynchronous motors (ASM), switchgear combinations, emergency generators, and lighting systems. It also looks at equipment for overcurrent protection and protection against electric shock, as well as selectivity and backup protection. A chapter on the current carrying capacity of conductors and cables comes next, followed by ones on calculation of short circuit currents in three-phase networks and voltage drop calculations. Finally, the book takes a look at compensating for reactive power and finishes with a section on lightning protection systems. Covers a subject of great international importance Features numerous tables, diagrams, and worked examples that help practicing engineers in the planning of electrical systems Written by an expert in the field and member of various national and international standardization committees Supplemented with programs on an accompanying website that help readers reproduce and adapt calculations on their own Analysis and Design of Electrical Power Systems: A Practical Guide and Commentary on NEC and IEC 60364 is an excellent resource for all practicing engineers such as electrical engineers, engineers in power technology, etc. who are involved in electrical systems planning.