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Edizione	[1st ed.]
Descrizione fisica	1 online resource (354 pages)
Disciplina	623.87
Soggetti	Ships - Electric equipment - Design and construction Ships - Electronic equipment - Design and construction
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Design fundamentals and verification -- Power system design, development, and verification -- Power generation and distribution -- Emergency power system design and development -- Protection and verification -- Power quality -- harmonics -- Shipboard cable application -- Grounding, insulation monitoring design, and verification -- Shore power LV and MV system -- Smart ship system design (S3D) and verification -- Electrical safety and arc flash analysis.
Sommario/riassunto	The only book that covers fundamental shipboard design and verification concepts from individual devices to the system level Shipboard electrical system design and development requirements are fundamentally different from utility-based power generation and distribution requirements. Electrical engineers who are engaged in shipbuilding must understand various design elements to build both safe and energy-efficient power distribution systems. This book covers all the relevant technologies and regulations for building shipboard power systems, which include commercial ships, naval ships, offshore floating platforms, and offshore support vessels. In recent years, offshore floating platforms have been frequently discussed in exploring deep-water resources such as oil, gas, and wind energy. This book

presents step-by-step shipboard electrical system design and verification fundamentals and provides information on individual electrical devices and practical design examples, along with ample illustrations to back them. In addition, Shipboard Power Systems Design and Verification Fundamentals: -Presents real-world examples and supporting drawings for shipboard electrical system design -Includes comprehensive coverage of domestic and international rules and regulations (e.g. IEEE 45, IEEE 1580) -Covers advanced devices such as VFD (Variable Frequency Drive) in detail This book is an important read for all electrical system engineers working for shipbuilders and shipbuilding subcontractors, as well as for power engineers in general.