1. Record Nr. UNINA9910146076103321 Autore Klempner Geoff Titolo Operation and maintenance of large turbo generators / / Geoff Klempner, Isidor Kerszenbaum Hoboken, New Jersey: .: John Wiley & Sons Pub., . c2004 Pubbl/distr/stampa [Piscatagay, New Jersey]:,: IEEE Xplore,, [2005] **ISBN** 1-280-55690-0 9786610556908 0-471-68337-X 1-60119-592-3 0-471-68338-8 Descrizione fisica 1 PDF (xxiii, 560 pages): illustrations Collana IEEE Press series on power engineering;; 14 Altri autori (Persone) KerszenbaumIsidor Disciplina 621.31/3 Soggetti **Turbogenerators** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Bibliographic Level Mode of Issuance: Monograph Note generali Nota di bibliografia Includes bibliographical references and index. PREFACE -- ACKNOWLEDGMENTS -- I THEORY, CONSTRUCTION, AND Nota di contenuto OPERATION -- 1 PRINCIPLES OF OPERATION OF SYNCHRONOUS MACHINES -- 1.1 Introduction to Basic Notions on Electric Power -- 1.2 Electrical--Mechanical Equivalence -- 1.3 Alternated Circuits (AC) --1.4 Three-Phase Circuits -- 1.5 Basic Principles of Machine Operation -- 1.6 The Synchronous Machine -- 1.7 Basic Operation of the Synchronous Machine -- 2 GENERATOR DESIGN AND CONSTRUCTION -- 2.1 Stator Core -- 2.2 Stator Frame -- 2.3 Flux and Armature Reaction -- 2.4 Electromagnetics -- 2.5 End-Region Effects and Flux Shielding -- 2.6 Stator Core and Frame Forces -- 2.7 Stator Windings -- 2.8 Stator Winding Wedges -- 2.9 End-Winding Support Systems --2.10 Stator Winding Configurations -- 2.11 Stator Terminal Connections -- 2.12 Rotor Forging -- 2.13 Rotor Winding -- 2.14 Rotor Winding Slot Wedges -- 2.15 Amortisseur Winding -- 2.16 Retaining-Rings -- 2.17 Bore Copper and Terminal Connectors -- 2.18 Slip-Collector Rings and Brush-Gear -- 2.19 Rotor Shrink Coupling --

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The comprehensive guide for the operation and maintenance of large turbo-generatorsOperation and Maintenance of Large Turbo-Generators is the ultimate resource for operators and inspectors of large utility and industrial generating facilities who deal with multiple units of disparate size, origin, and vintage. It offers the complete scope of information regarding operation and maintenance of all types of turbine-driven generators built in the world. Based on the authors' combined sixty years of generating station and design work

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