

Alstom Circuit Breaker Manual

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It is your definitely own become old to perform reviewing habit. in the middle of guides you could enjoy now is **Alstom Circuit Breaker Manual** below.

Distribution Switchgear - Stan Stewart 2004-02-02

This book is an invaluable reference source dealing with the general principles of the switchgear function and discussing topics such as interruption techniques, fault level calculations switching transients and electrical insulation.

Operation of Electrical Installations - British Standards Institution 2021

Power Microelectronics: Device And Process Technologies (Second Edition) - Yung Chii Liang 2017-03-14

'This is an excellent reference book for graduates or undergraduates studying semiconductor technology, or for working professionals who need a reference for detailed theory and working knowledge of processes in the field of power semiconductor devices.' IEEE Electrical Insulation Magazine This descriptive textbook provides a clear look at the theories and process technologies necessary for understanding the modern power semiconductor devices, i.e. from the fundamentals of p-n junction electrostatics, unipolar MOSFET and superjunction structures, bipolar IGBT, to the most recent wide bandgap SiC and GaN devices. It also covers their associated semiconductor process technologies. Real examples based on actual fabricated devices, with the process steps described in clear detail are especially useful. This book is suitable for university courses on power semiconductor or power electronic devices. Device designers and researchers will also find this book a good reference in their work, especially for those focusing on the advanced device development and design aspects.

Gas Turbine Engineering Handbook - Meherwan P. Boyce 2017-09-01

The Gas Turbine Engineering Handbook has been the standard for engineers involved in the design, selection, and operation of gas turbines. This revision includes new case histories, the latest techniques, and new designs to comply with recently passed legislation. By keeping the book up to date with new, emerging topics, Boyce ensures that this book will remain the standard and most widely used book in this field. The new Third Edition of the Gas Turbine Engineering Hand Book updates the book to cover the new generation of Advanced gas Turbines. It examines the benefit and some of the major problems that have been encountered by these new turbines. The book keeps abreast of the environmental changes and the industries answer to these new regulations. A new chapter on case histories has been added to enable the engineer in the field to keep abreast of problems that are being encountered and the solutions that have resulted in solving them. Comprehensive treatment of Gas Turbines from Design to Operation and Maintenance. In depth treatment of Compressors with emphasis on surge, rotating stall, and choke; Combustors with emphasis on Dry Low NOx Combustors; and Turbines with emphasis on Metallurgy and new cooling schemes. An excellent introductory book for the student and field engineers A special maintenance section dealing with the advanced gas turbines, and special diagnostic charts have been provided that will enable the reader to troubleshoot problems he encounters in the field The third edition consists of many Case Histories of Gas Turbine problems. This should enable the field engineer to avoid some of these same generic problems

Manual on EHV Substation Equipment Maintenance - 2005

Switching Equipment - Hiroki Ito 2018-08-02

This CIGRE Green Book provides the entire know-how about switches in a high voltage system. The switching equipment includes circuit breakers, vacuum interrupters, disconnecting switches, and earthing switches used in AC & DC transmission and distribution systems. The Green book describes different switching equipments and their roles in the power systems. It explains the fundamental switching behaviors in power systems targeted for practitioners and students and joining electrical industries. The Green book also covers fundamental specific subjects including DC circuit breakers, controlled switching, fault

current limiting devices and future technologies. Like all Green books, this book covers the cumulative understanding of numerous experts in the CIGRE study committee. It offers the approved and outstanding practical knowledge of CIGRE Study committee A3 and was collected by Dr. Hiroki Ito.

Handbook of Electrical Engineering - Alan L. Sheldrake 2016-06-22

A practical treatment of power system design within the oil, gas, petrochemical and offshore industries. These have significantly different characteristics to large-scale power generation and long distance public utility industries. Developed from a series of lectures on electrical power systems given to oil company staff and university students, Sheldrake's work provides a careful balance between sufficient mathematical theory and comprehensive practical application knowledge. Features of the text include: Comprehensive handbook detailing the application of electrical engineering to the oil, gas and petrochemical industries Practical guidance to the electrical systems equipment used on off-shore production platforms, drilling rigs, pipelines, refineries and chemical plants Summaries of the necessary theories behind the design together with practical guidance on selecting the correct electrical equipment and systems required Presents numerous 'rule of thumb' examples enabling quick and accurate estimates to be made Provides worked examples to demonstrate the topic with practical parameters and data Each chapter contains initial revision and reference sections prior to concentrating on the practical aspects of power engineering including the use of computer modelling Offers numerous references to other texts, published papers and international standards for guidance and as sources of further reading material Presents over 35 years of experience in one self-contained reference Comprehensive appendices include lists of abbreviations in common use, relevant international standards and conversion factors for units of measure An essential reference for electrical engineering designers, operations and maintenance engineers and technicians.

J & P Transformer Book - Martin Heathcote 2011-04-01

Maintaining appropriate power systems and equipment expertise is necessary for a utility to support the reliability, availability, and quality of service goals demanded by energy consumers now and into the future. However, transformer talent is at a premium today, and all aspects of the power industry are suffering a diminishing of the supply of knowledgeable and experienced engineers. Now in print for over 80 years since initial publication in 1925 by Johnson & Phillips Ltd, the J & P Transformer Book continues to withstand the test of time as a key body of reference material for students, teachers, and all whose careers are involved in the engineering processes associated with power delivery, and particularly with transformer design, manufacture, testing, procurement, application, operation, maintenance, condition assessment and life extension. Current experience and knowledge have been brought into this thirteenth edition with discussions on moisture equilibrium in the insulation system, vegetable based natural ester insulating fluids, industry concerns with corrosive sulphur in oil, geomagnetic induced current (GIC) impacts, transportation issues, new emphasis on measurement of load related noise, and enhanced treatment of dielectric testing (including Frequency Response Analysis), Dissolved Gas analysis (DGA) techniques and tools, vacuum LTCs, shunt and series reactors, and HVDC converter transformers. These changes in the thirteenth edition together with updates of IEC reference Standards documentation and inclusion for the first time of IEEE reference Standards, provide recognition that the transformer industry and market is truly global in scale. -- From the foreword by Donald J. Fallon Martin Heathcote is a consultant specializing in power transformers, primarily working for utilities. In this context he has established working relationships with transformer manufacturers on several continents. His background with Ferranti and the UK's Central Electricity Generating Board (CEGB) included transformer design and the management and maintenance of

transformer-based systems. * The definitive reference for all involved in designing, installing, monitoring and maintaining high-voltage systems using power transformers (electricity generation and distribution sector; large-scale industrial applications) * The classic reference work on power transformers and their applications: first published in 1925, now brought fully up to date in this thirteenth edition * A truly practical engineering approach to design, monitoring and maintenance of power transformers - in electricity generation, substations, and industrial applications.

Indian Trade Journal - 2005-02-05

Power System Analysis and Design - J. Duncan Glover 2011-01-03

The new edition of POWER SYSTEM ANALYSIS AND DESIGN provides students with an introduction to the basic concepts of power systems along with tools to aid them in applying these skills to real world situations. Physical concepts are highlighted while also giving necessary attention to mathematical techniques. Both theory and modeling are developed from simple beginnings so that they can be readily extended to new and complex situations. The authors incorporate new tools and material to aid students with design issues and reflect recent trends in the field. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Offshore Electrical Engineering Manual - Geoff MacAngus-Gerrard 2017-11-24

Offshore Electrical Engineering Manual, Second Edition, is for electrical engineers working on offshore projects who require detailed knowledge of an array of equipment and power distribution systems. The book begins with coverage of different types of insulation, hot-spot temperatures, temperature rise, ambient air temperatures, basis of machine ratings, method of measurement of temperature rise by resistance, measurement of ambient air temperature. This is followed by coverage of AC generators, automatic voltage regulators, AC switchgear transformers, and programmable electronic systems. The emphasis throughout is on practical, ready-to-apply techniques that yield immediate and cost-effective benefits. The majority of the systems covered in the book operate at a nominal voltage of 24 y dc and, although it is not necessary for each of the systems to have separate battery and battery charger systems, the grouping criteria require more detailed discussion. The book also provides information on equipment such as dual chargers and batteries for certain vital systems, switchgear tripping/closing, and engine start batteries which are dedicated to the equipment they supply. In the case of engines which drive fire pumps, duplicate charges and batteries are also required. Packed with charts, tables, and diagrams, this work is intended to be of interest to both technical readers and to general readers. It covers electrical engineering in offshore situations, with much of the information gained in the North Sea. Some topics covered are offshore power requirements, generator selection, process drivers and starting requirements, control and monitoring systems, and cabling and equipment installation Discusses how to perform inspections of electrical and instrument systems on equipment using appropriate regulations and specifications Explains how to ensure electrical systems/components are maintained and production is uninterrupted Demonstrates how to repair, modify, and install electrical instruments ensuring compliance with current regulations and specifications Covers specification, management, and technical evaluation of offshore electrical system design Features evaluation and optimization of electrical system options including DC/AC selection and offshore cabling designs

Transmission and Distribution Electrical Engineering - Colin R. Bayliss 2012-01-31

Chapter 1: System Studies -- Chapter 2: Drawings and Diagrams -- Chapter 3: Substation Layouts -- Chapter 4: Substation Auxiliary Power Supplies -- Chapter 5: Current and Voltage Transformers -- Chapter 6: Insulators -- Chapter 7: Substation Building Services -- Chapter 8: Earthing and Bonding -- Chapter 9: Insulation Co-ordination -- Chapter 10: Relay Protection -- Chapter 11: Fuses and Miniature Circuit Breakers -- Chapter 12: Cables -- Chapter 13: Switchgear -- Chapter 14: Power Transformers -- Chapter 15: Substation and Overhead Line Foundations - - Chapter 16: Overhead Line Routing -- Chapter 17: Structures, Towers and Poles -- Chapter 18: Overhead Line Conductor and Technical Specifications -- Chapter 19: Testing and Commissioning -- Chapter 20: Electromagnetic Compatibility -- Chapter 21: Supervisory Control and Data Acquisition -- Chapter 22: Project Management -- Chapter 23: Distribution Planning -- Chapter 24: Power Quality- Harmonics in Power Systems -- Chapter 25: Power Qual ...

The International Journal on Hydropower & Dams - 2005

Integration of Distributed Generation in the Power System - Math H. J. Bollen 2011-08-04

The integration of new sources of energy like wind power, solar-power, small-scale generation, or combined heat and power in the power grid is something that impacts a lot of stakeholders: network companies (both distribution and transmission), the owners and operators of the DG units, other end-users of the power grid (including normal consumers like you and me) and not in the least policy makers and regulators. There is a lot of misunderstanding about the impact of DG on the power grid, with one side (including mainly some but certainly not all, network companies) claiming that the lights will go out soon, whereas the other side (including some DG operators and large parks of the general public) claiming that there is nothing to worry about and that it's all a conspiracy of the large production companies that want to protect their own interests and keep the electricity price high. The authors are of the strong opinion that this is NOT the way one should approach such an important subject as the integration of new, more environmentally friendly, sources of energy in the power grid. With this book the authors aim to bring some clarity to the debate allowing all stakeholders together to move to a solution. This book will introduce systematic and transparent methods for quantifying the impact of DG on the power grid. *Electric Power Substations Engineering* - John D. McDonald 2016-04-19 Combining select chapters from Grigsby's standard-setting The Electric Power Engineering Handbook with several chapters not found in the original work, Electric Power Substations Engineering became widely popular for its comprehensive, tutorial-style treatment of the theory, design, analysis, operation, and protection of power substations. For its **Advances in High Voltage Engineering** - A. Haddad 2004

This book addresses the very latest research and development issues in high voltage technology, specifically covering developments throughout the past decade. It is intended as a reference source for researchers and students in the field, but the unique blend of expert authors and comprehensive subject coverage means that this book is also ideally suited as a reference source for engineers and academics in the field for years to come.

The IEE Protection Against Electric Shock - ANONIMO 2002-01

A guide to the protection of electrical equipment from electrical shock. It is part of a series of manuals designed to amplify the particular requirements of a part of the 16th Edition Wiring Regulations. Each of the guides is extensively cross-referenced to the Regulations thus providing easy access. Some Guidance Notes contain information not included in the 16th Edition but which was included in earlier editions of the IEE Wiring Regulations. All the guides have been updated to align with BS 7671:2001.

Newnes Electrical Pocket Book - E A Reeves 2013-06-17

Newnes Electrical Pocket Book is the ideal daily reference source for electrical engineers, electricians and students. First published in 1932 this classic has been fully updated in line with the latest technical developments, regulations and industry best practice. Providing both in-depth knowledge and a broad overview of the field this pocket book is an invaluable tool of the trade. A handy source of essential information and data on the practice and principles of electrical engineering and installation. The 23rd edition has been updated by engineering author and consultant electrical engineer, Martin Heathcote. Major revisions have been made to the sections on semiconductors, power generation, transformers, building automation systems, electric vehicles, electrical equipment for use in hazardous areas, and electrical installation (reflecting the changes introduced to the IEE Wiring Regulations BS7671: 2001).

THOMAS REGISTER 2005 - 2005

Electromagnetic Compatibility in Railways - Ade Ogunsola 2012-08-14

A railway is a complex distributed engineering system: the construction of a new railway or the modernisation of an existing one requires a deep understanding of the constitutive components and their interaction, inside the system itself and towards the outside world. The former covers the various subsystems (featuring a complex mix of high power sources, sensitive safety critical systems, intentional transmitters, etc.) and their interaction, including the specific functions and their relevance to safety. The latter represents all the additional possible external victims and sources of electromagnetic interaction. EMC thus starts from a comprehension of the emissions and immunity characteristics and the interactions between sources and victims, with a strong relationship to electromagnetics and to system modeling. On the other hand, the said functions are achieved and preserved and their relevance for safety is

adequately handled, if the related requirements are well posed and managed throughout the process from the beginning. The link is represented by standards and their correct application, as a support to analysis, testing and demonstration.

Thomas Register of American Manufacturers - 2002

This basic source for identification of U.S. manufacturers is arranged by product in a large multi-volume set. Includes: Products & services, Company profiles and Catalog file.

Protection of Electricity Distribution Networks, 2nd Edition - Juan M. Gers 2004

Written by two practicing electrical engineers, this second edition of the bestselling *Protection of Electricity Distribution Networks* offers both practical and theoretical coverage of the technologies, from the classical electromechanical relays to the new numerical types, which protect equipment on networks and in electrical plants. A properly coordinated protection system is vital to ensure that an electricity distribution network can operate within preset requirements for safety for individual items of equipment, staff and public, and the network overall. Suitable and reliable equipment should be installed on all circuits and electrical equipment and to do this, protective relays are used to initiate the isolation of faulted sections of a network in order to maintain supplies elsewhere on the system. This then leads to an improved electricity service with better continuity and quality of supply.

Design and Application of Modern Synchronous Generator Excitation Systems - Jicheng Li 2019-03-18

Uses real world case studies to present the key technologies of design and application of the synchronous generator excitation system This book systematically introduces the important technologies of design and application of the synchronous generator excitation system, including the three-phase bridge rectifier circuit, diode rectifier for separate excitation, brushless excitation system and the static self-stimulation excitation system. It fuses discussions on specific topics and basic theories, providing a detailed description of the theories essential for synchronous generators in the analysis of excitation systems. *Design and Application of Modern Synchronous Generator Excitation Systems* provides a cutting-edge examination of excitation system, addressing conventional hydro-turbines, pumped storage units, steam turbines, and nuclear power units. It looks at the features and performance of the excitation system of the 700MW hydro-turbine deployed at the Three Gorges Hydropower Plant spanning the Yangtze River in China, as well as the working principle and start-up procedure of the static frequency converter (SFC) of pumped storage units. It also expounds on the composition of the excitation transformer, power rectifier, de-excitation equipment, and automatic excitation regulator—in addition to the performance features of the excitation system of conventional 600/1000MW turbines and the excitation system of the 1000MW nuclear power unit. Presents cutting-edge technologies of the excitation system from a unique engineering perspective Offers broad appeal to power system engineers who require a better understanding of excitation systems Addresses hydro-turbines, pumped storage units, steam turbines, and nuclear power units Provides an interdisciplinary examination of a range of applications Written by a senior expert in the area of excitation systems Written by an author with over 50 years' experience, *Design and Application of Modern Synchronous Generator Excitation Systems* is an excellent text that offers an interdisciplinary exposition for professionals, researchers, and academics alike.

Power System Protection in Smart Grid Environment - Ramesh Bansal 2019-01-15

With distributed generation interconnection power flow becoming bidirectional, culminating in network problems, smart grids aid in electricity generation, transmission, substations, distribution and consumption to achieve a system that is clean, safe (protected), secure, reliable, efficient, and sustainable. This book illustrates fault analysis, fuses, circuit breakers, instrument transformers, relay technology, transmission lines protection setting using DIGsILENT Power Factory. Intended audience is senior undergraduate and graduate students, and researchers in power systems, transmission and distribution, protection system broadly under electrical engineering.

Thomas Register of American Manufacturers and Thomas Register Catalog File - 2003

Vols. for 1970-71 includes manufacturers' catalogs.

Official Gazette of the United States Patent and Trademark Office - 1996

Moody's International Manual - 2000

Network Protection & Automation Guide - 2002

May 2022 - Surplus Record Machinery & Equipment Directory - Surplus Record 2022-05-01

SURPLUS RECORD, is the leading independent business directory of new and used capital equipment, machine tools, machinery, and industrial equipment, listing over 95,000 industrial assets; including metalworking and fabricating machine tools, chemical and process equipment, cranes, air compressors, pumps, motors, circuit breakers, generators, transformers, turbines, and more. Over 1,100 businesses list with the SURPLUS RECORD. May 2022 issue. Vol. 99, No. 5

Handbook of Electrical Power System Dynamics - Mircea Eremia 2013-02-21

This book aims to provide insights on new trends in power systems operation and control and to present, in detail, analysis methods of the power system behavior (mainly its dynamics) as well as the mathematical models for the main components of power plants and the control systems implemented in dispatch centers. Particularly, evaluation methods for rotor angle stability and voltage stability as well as control mechanism of the frequency and voltage are described. Illustrative examples and graphical representations help readers across many disciplines acquire ample knowledge on the respective subjects.

Gas Insulated Substations - Hermann J. Koch 2014-08-11

Comprehensive reference covering all aspects of gas insulated substations including basic principles, technology, use & application, design, specification, testing and ownership issues This book provides an overview on the particular development steps of gas insulated high-voltage switchgear, and is based on the information given with the editor's tutorial. The theory is kept low only as much as it is needed to understand gas insulated technology, with the main focus of the book being on delivering practical application knowledge. It discusses some introductory and advanced aspects in the meaning of applications. The start of the book presents the theory of Gas Insulated Technology, and outlines reliability, design, safety, grounding and bonding, and factors for choosing GIS. The third chapter presents the technology, covering the following in detail: manufacturing, specification, instrument transformers, Gas Insulated Bus, and the assembly process. Next, the book goes into control and monitoring, which covers local control cabinet, bay controller, control schemes, and digital communication. Testing is explained in the middle of the book before installation and energization. Importantly, operation and maintenance is discussed. This chapter includes information on repair, extensions, retrofit or upgrade, and overloading. Finally applications are covered along with concepts of layout, typical layouts, mixed technology substations, and then other topics such as life cycle assessment, environmental impact, and project management. A one-stop, complete reference text on gas insulated substations (GIS), large-capacity and long-distance electricity transmission, which are of increasing importance in the power industry today Details advanced and basic material, accessible for both existing GIS users and those planning to adopt the technology Discusses both the practical and theoretical aspects of GIS Written by acknowledged GIS experts who have been involved in the development of the technology from the start

Wind Power in Power Systems - Thomas Ackermann 2012-04-23

The second edition of the highly acclaimed *Wind Power in Power Systems* has been thoroughly revised and expanded to reflect the latest challenges associated with increasing wind power penetration levels. Since its first release, practical experiences with high wind power penetration levels have significantly increased. This book presents an overview of the lessons learned in integrating wind power into power systems and provides an outlook of the relevant issues and solutions to allow even higher wind power penetration levels. This includes the development of standard wind turbine simulation models. This extensive update has 23 brand new chapters in cutting-edge areas including offshore wind farms and storage options, performance validation and certification for grid codes, and the provision of reactive power and voltage control from wind power plants. Key features: Offers an international perspective on integrating a high penetration of wind power into the power system, from basic network interconnection to industry deregulation; Outlines the methodology and results of European and North American large-scale grid integration studies; Extensive practical experience from wind power and power system experts and transmission systems operators in Germany, Denmark, Spain, UK, Ireland, USA, China and New Zealand; Presents various wind turbine designs from the electrical perspective and models for their simulation,

and discusses industry standards and world-wide grid codes, along with power quality issues; Considers concepts to increase penetration of wind power in power systems, from wind turbine, power plant and power system redesign to smart grid and storage solutions. Carefully edited for a highly coherent structure, this work remains an essential reference for power system engineers, transmission and distribution network operator and planner, wind turbine designers, wind project developers and wind energy consultants dealing with the integration of wind power into the distribution or transmission network. Up-to-date and comprehensive, it is also useful for graduate students, researchers, regulation authorities, and policy makers who work in the area of wind power and need to understand the relevant power system integration issues.

AI and Learning Systems - Konstantinos Kyprianidis 2021-02-17

Over the last few years, interest in the industrial applications of AI and learning systems has surged. This book covers the recent developments and provides a broad perspective of the key challenges that characterize the field of Industry 4.0 with a focus on applications of AI. The target audience for this book includes engineers involved in automation system design, operational planning, and decision support. Computer science practitioners and industrial automation platform developers will also benefit from the timely and accurate information provided in this work. The book is organized into two main sections comprising 12 chapters overall: •Digital Platforms and Learning Systems •Industrial Applications of AI

Gas Insulated Substations - M. S. Naidu 2008-01-31

The increase in demand for electricity and the growing energy density in metropolitan cities have made it necessary to extend the existing high voltage network right up to the consumer. Stepping down the voltage from transmission to the distribution level at the substations located near the actual consumers not only yields economic advantages, but also ensures reliable power supply. Such substations are required to meet a number of severe requirements, including small installation size, effective protection against atmospheric pollution and moisture, noiseless operation, nonexplosive and flame resistant, reduced maintenance, minimal radio interference while providing excellent electric characteristics. Conventional substations using atmospheric air as the main dielectric cannot satisfy these requirements, but totally enclosed substations using sulphur hexafluoride (SF6) gas insulation that are also known as Gas Insulated Substations (GIS). GIS is now in widespread use in the electrical power industry, especially in metropolitan areas. This book will serve as a valuable reference for the novice as well as the expert who needs a wider and detailed scope of

coverage within the area of GIS. Gas Insulated Substations provides a comprehensive coverage of a wide range of topics which include: " Introduction to GIS & Properties of SF6 " Layout, Design, Construction, Testing & Maintenance of GIS " Special Problems and Diagnostic Techniques " VFTO Phenomena and its Effects in GIS " Service Experience " Standards Specifications " Future Trends " Extensive References Gas Insulated Substations (GIS) is the first single source for authoritative information on the state of the art in GIS.

THOMAS REGISTER - 2005

February 2022 - Surplus Record Machinery & Equipment Directory - Surplus Record 2022-02-01

SURPLUS RECORD, is the leading independent business directory of new and used capital equipment, machine tools, machinery, and industrial equipment, listing over 95,000 industrial assets; including metalworking and fabricating machine tools, chemical and process equipment, cranes, air compressors, pumps, motors, circuit breakers, generators, transformers, turbines, and more. Over 1,100 businesses list with the SURPLUS RECORD. February 2022 issue. Vol. 99, No. 2
Mergent International Manual - 2003

March 2022 - Surplus Record Machinery & Equipment Directory - Surplus Record 2022-03-01

SURPLUS RECORD, is the leading independent business directory of new and used capital equipment, machine tools, machinery, and industrial equipment, listing over 95,000 industrial assets; including metalworking and fabricating machine tools, chemical and process equipment, cranes, air compressors, pumps, motors, circuit breakers, generators, transformers, turbines, and more. Over 1,100 businesses list with the SURPLUS RECORD. March 2022 issue. Vol. 99, No. 3

CIREC: pt. 1. Contributions. Technical theme 1, Network components - 2001

January 2022 - Surplus Record Machinery & Equipment Directory - Surplus Record 2022-01-01

SURPLUS RECORD, is the leading independent business directory of new and used capital equipment, machine tools, machinery, and industrial equipment, listing over 95,000 industrial assets; including metalworking and fabricating machine tools, chemical and process equipment, cranes, air compressors, pumps, motors, circuit breakers, generators, transformers, turbines, and more. Over 1,100 businesses list with the SURPLUS RECORD. January 2022 issue. Vol. 99, No. 1