

## Table of Contents

- Introduction
- Basic Electricity
- Basic Electric Motor Systems
- Electrical Machine Insulation Systems
- Reliability
- Electric Motor Failure and Reliability
- Electrical Equipment Testing Methods
- Motor Circuit Analysis Basic Theory
- Motor Circuit Analysis Devices - ALL-TEST
- Software Applications For Motor Circuit Analysis
- Advanced Induction Motor Analysis
- DC Electric Motor Advanced Analysis
- Advanced Transmission and Distribution Transformer Analysis
- MCA as Part of a Maintenance Program
- Energy Impact of Motor Circuit Analysis
- Case Studies
- Bibliography
- Appendix A: ALL-TEST IV *PRO* 2000 Operating Instructions
- Appendix B: ALL-TEST TREND 2000 Software
- Appendix C: MotorMaster Plus Data Entry
- Appendix D: MotorMaster Plus Condition Analysis and Reporting Instructions
- Appendix E: HAL Junior Excel Application
- Appendix F: Student Guidebook

CD ROM includes: PowerPoint Presentations, HAL Junior Lt, ATIII Condition Calculator, the Impedance Unbalance Calculator, MotorMaster Plus sample database and more! An over \$750 value!\*

BIM Corp  
123 Spencer Plains Rd  
Old Saybrook, CT 06475

New Book!  
Available In July, 2001

New Book!  
Available In July, 2001

## MOTOR CIRCUIT ANALYSIS: THEORY, APPLICATION AND ENERGY ANALYSIS

### Winding Analysis For Motors and Transformers



Features basic and advanced techniques for the ALL-TEST line of motor circuit analyzers, software tools, the US Department of Energy's MotorMaster Plus, web-based training, support and the basic steps to put together a planned maintenance program

Includes CD ROM and Distance Learning

Author:  
Howard W. Penrose, Ph.D.

## Motor Circuit Analysis: Theory, Application and Energy Analysis

1st of the *SUCCESS by DESIGN*  
MotorDoc series

### BENEFITS

- Energy Savings
- Improved Production Uptime
- On-Line support and web-based student evaluation for Student Guidebook
- Instructions on how to use the US Department of Energy's MotorMaster Plus software and new maintenance features
- Easy to Use, Easy to Learn
- Assists in the development and cost justification of virtually any type of reliability or predictive maintenance program

\* HAL Junior Lt, ATIII Condition Calculator, and Impedance Unbalance Calculator require Windows Excel 97, or later. MotorMaster Plus requires Microsoft Windows. MotorMaster Plus is downloaded from the US Department of Energy's website:  
[www.oit.doe.gov/bestpractices](http://www.oit.doe.gov/bestpractices)



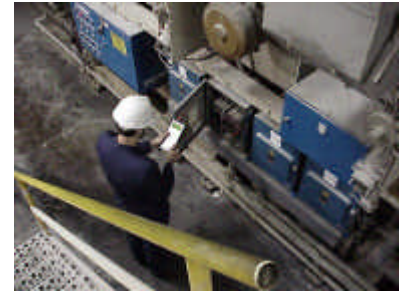
An essential working tool for new and experienced Motor Circuit Analysts. Includes information and materials for using the BJM Corp ALL-TEST III, ALL-TEST IV *PRO* 2000, software tools and the US Department of Energy's MotorMaster Plus software, as part of an integral energy and reliability-based predictive maintenance program. The analysis and troubleshooting sections provide information on most types of electric motor, transformer and related systems. Information on reliability and predictive maintenance programs, a basic plan for implementation and cost justification are outlined.

Designed using a special textbook and study guide combined format, the First Edition offers the motor circuit analyst or reliability engineer the necessary information to complete the BJM Corp MotorCircuit Analysis Level 1 Exam.

ISBN: 0-9712450-0-2  
Investment: \$149.95 USD

How To Order: Fax BJM Corp at 860-399-7784  
or Email: [sales@bjmcorp.com](mailto:sales@bjmcorp.com)  
Mastercard or Visa accepted

Available in late July, 2001  
Reserve your copy today!



"The book is very informative, it has a lot of very useful information that can be utilized by engineers as well as field technicians dealing with PdM, PM and troubleshooting. Even management can use this as a guide in setting up, or enhancing, a maintenance program to help eliminate reactive maintenance."

Peter Longo  
Vermont Yankee Nuclear

Publisher:

*SUCCESS by DESIGN*  
5 Dogwood Lane  
Old Saybrook, CT 06475

Email: [sales@motordoc.net](mailto:sales@motordoc.net)