



Electrical Power Testing

Level IV Selected General References

Candidates are NOT permitted to bring references into the test center.

The following publications can provide some of the job knowledge required by an electrical power testing technician. While these books may help you prepare for the exam, they are NOT permitted in the test center.

29 CFR 1910: Occupational Safety and Health Standards. Occupational Safety & Health Administration.

29 CFR 1926: Safety and Health Regulations for Construction, Occupational Safety & Health Administration.

41-201S: Type CV Voltage Relay Instruction Leaflet, 1997. ABB.

41-347.12C: Type HU and HU-1 Transformer Differential Relays Instruction Leaflet, 1999. ABB.

72A-1140: M4000 Insulation Analyzer User Guide, 2000. Doble Engineering.

ANSI/NEMA MG 1 (2011): Motors and Generators. National Electrical Manufacturers Association.

ANSI/NETA ATS: Acceptance Testing Specifications for Electrical Power Equipment and Systems, InterNational Electrical Testing Association. ****2009 edition ending 4/24/16; 2013 edition beginning 4/25/16****

ANSI/NETA MTS: Maintenance Testing Specifications for Electrical Power Distribution Equipment and Systems, InterNational Electrical Testing Association. ****2007 edition ending 4/24/16; 2015 edition beginning 4/25/16****

Ariza, J. and G. Ibarra. "An Application Case of End-to-End Relay Testing of Communication-Based Protection schemes Using GPS-Synchronized Secondary Injection." NETA World, Winter 2006-2007.

CSR-1: Electrically Operated Control Switch Relay For Both Manual and Remote Supervisory Control of Power Circuit Breakers, 1997. Electroswitch.

Electrical Motor Diagnostics, 2nd edition. Howard W. Penrose, Success By Design.

Electrical Power Equipment Maintenance and Testing, 2nd edition. Paul Gill, CRC Press.

Handbook for Electricity Metering. Edison Electric Institute. ****9th edition ending 4/24/16; 10th edition beginning 4/25/16****

IB02102002E: Instructions for Installation, Operation, and Maintenance of Type MVS2 and MVS2-c Load Interrupter Switches, 5.0 kV, 15.0 kV, 27kV, and 38kV, 2013. Eaton.

IEEE 43: Testing Insulation Resistance of Electric Machinery, Institute of Electrical and Electronics Engineers. ****2000 edition ending 4/24/16; 2013 edition beginning 4/25/16****

IEEE 62 (1995): Guide for Diagnostic Field Testing of Electric Power Apparatus – Part 1: Oil Filled Power Transformers, Regulators, and Reactors, Institute of Electrical and Electronics Engineers. ****ending 4/24/16****

IEEE 141 (1993): Electric Power Distribution for Industrial Plants, Institute of Electrical and Electronics Engineers.

IEEE 142 (2007): Grounding of Industrial and Commercial Power Systems, Institute of Electrical and Electronics Engineers.

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- IEEE 242 (2001): Protection and Coordination of Industrial and Commercial Power Systems, Institute of Electrical and Electronics Engineers.
- IEEE 400.1 (2007): Guide for Field Testing of Laminated Dielectric, Shielded Power Cable Systems Rated 5 kV and Above with High Direct Current Voltage, Institute of Electrical and Electronics Engineers.
- IEEE 400.2 (2013): Guide for Field Testing of Shielded Power Cable Systems Using Very Low Frequency (VLF)(less than 1 Hz), Institute of Electrical and Electronics Engineers.
- IEEE 400.3 (2006): Guide for Partial Discharge Testing of Shielded Power Cable Systems in a Field Environment, Institute of Electrical and Electronics Engineers. ****ending 4/24/16****
- IEEE 450: Maintenance, Testing, and Replacement of Vented Lead-Acid Batteries for Stationary Applications, Institute of Electrical and Electronics Engineers. ****2002 edition ending 4/24/16; 2010 edition beginning 4/25/16****
- IEEE 519 (1992): Harmonic Control in Electrical Power Systems, Institute of Electrical and Electronics Engineers. ****ending 4/24/16****
- IEEE 1048 (2003): Guide for Protective Grounding of Power Lines, Institute of Electrical and Electronics Engineers.
- IEEE 1159 (2009): Recommended Practice for Monitoring Electric Power Quality, Institute of Electrical and Electronics Engineers.
- IEEE C37.20.1 (2015): Standard for Metal-Enclosed Low-Voltage (1000 Vac and below, 3200 Vdc and below) Power Circuit Breaker Switchgear, Institute of Electrical and Electronics Engineers.
- IEEE C50.13 (2014): Cylindrical-Rotor 50 Hz and 60 Hz Synchronous Generators Rated 10 MVA and Above, Institute of Electrical and Electronics Engineers.
- IEEE C57.13.1 (2006): Guide for Field Testing of Relaying Current Transformers, Institute of Electrical and Electronics Engineers.
- IEEE C57.93 (2007): Guide for Installation and Maintenance of Liquid-Immersed Power Transformers, Institute of Electrical and Electronics Engineers.
- IEEE C57.104 (2008): Guide for the Interpretation of Gases Generated in Oil-Immersed Transformers, Institute of Electrical and Electronics Engineers.
- IEEE C57.106 (2007): Approved Draft Guide for Acceptance and Maintenance of Insulating Mineral Oil in Electrical Equipment, Institute of Electrical and Electronics Engineers.
- IEEE C57.125: Guide for Failure Investigation, Documentation, and Analysis for Power Transformers and Shunt Reactors, Institute of Electrical and Electronics Engineers. ****1991 edition ending 4/24/16; 2015 edition beginning 4/25/16****
- IEEE C57.152 (2013): Guide for Diagnostic Field Testing of Fluid-Filled Power Transformers, Regulators, and Reactors, Institute of Electrical and Electronics Engineers.
- Lozano, José A. et al., "Railway Traction." In Reliability and Safety in Railway. Edited by Dr. Xavier Perpinya, InTech.
- Motor Protection Principles, 2015. General Electric.
- NEMA (2004): Evaluating Water-Damaged Electrical Equipment. National Electrical Manufacturers Association.

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Level IV Selected General References, continued

NEMA 250 (2014): Enclosures for Electrical Equipment (1000 Volts Maximum). National Electrical Manufacturers Association.

NFPA 70: National Electrical Code, National Fire Protection Association. ****2011 edition ending 4/24/16; 2014 edition beginning 4/25/16****

NFPA 70B: Electrical Equipment Maintenance, National Fire Protection Association. ****2010 edition ending 4/24/16; 2013 edition beginning 4/25/16****

NFPA 70E: Electrical Safety in the Workplace, National Fire Protection Association. ****2009 edition ending 4/24/16; 2015 edition beginning 4/25/16****

Pearl 2110 (Revision 6): Medium Voltage Air Disconnect Switch, Professional Electrical Apparatus Recyclers League.

Power System Relaying, 3rd edition. Stanley H. Horowitz, Wiley.

Project Management Toolbox: Tools and Techniques for the Practicing Project Manager, 2003. Dragan Z. Milosevic, Wiley.

The Relay Testing Handbook: Principles and Practice, 2012. Chris Werstiuk, Valence Electrical Training Services.

Rifaat, R. M. "Considerations in applying power bus protection schemes to industrial and IPP systems." Transactions on Industrial Electronics, IEEE Vol. 40 (6).

Signalcrafters Manual, 2012. Signalcrafters Tech.

Song, J et al. "Corrosion Protection of Electrically Conductive Surfaces." Metals, 2012 2(4).

A Stitch in Time: The Complete Guide to Electrical Insulation Testing, 2006. Megger.

Ugly's Electrical References, 4th edition. George V. Hart, Jones & Bartlett Learning.

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- This listing is not intended to be complete or representative.

March 31, 2016