

1. Record Nr.	UNINA9910973193503321
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Titolo	Electrical course for apprentices and journeymen / / Paul Rosenberg
Pubbl/distr/stampa	[New York], : Wiley Pub., c2004
ISBN	9786610252534 9781280252532 1280252537 9780764569913 0764569910
Edizione	[4th ed.]
Descrizione fisica	1 online resource (421 p.)
Collana	Audel Technical Trades Series ; ; v.12
Disciplina	621.3
Soggetti	Electrical engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	At head of title: Audel. Includes index.
Nota di contenuto	Introduction; Chapter 1: Electricity and Matter; Elements, Atoms, Molecules, and Compounds; Electron Theory; Electric Current; Insulators and Conductors; Questions; Chapter 2: Units and Definitions; Fundamental and Derived Units; Definitions; Magnetic Units; Temperature Units; Questions; Chapter 3: Electrical Symbols; Graphic Electrical Wiring Symbols; 0.1 Drafting Practices Applicable to Graphic Electrical Wiring Symbols; 0.2 Explanation Supplementing the Schedule of Symbols; List of Symbols; 1.0 Lighting Outlets; 2.0 Receptacle Outlets; 3.0 Switch Outlets 4.0 Signaling System Outlets: Institutional, Commercial, and Industrial Occupancies 5.0 Signaling System Outlets: Residential Occupancies; 6.0 Panelboards, Switchboards, and Related Equipment; 7.0 Bus Ducts and Wireways; 8.0 Remote Control Stations for Motors or Other Equipment*; 9.0 Circuiting; 10.0 Electric Distribution or Lighting System, Underground; 11.0 Electric Distribution or Lighting System Aerial; Arrester, Lightning Arrester (Electric Surge, etc.) Gap; Battery; Circuit Breakers; Circuit Return; Coil, Magnetic Blowout*; Contact, Electrical; Contactor; Machine, Rotating Meter Instrument Path, Transmission, Conductor, Cable Wiring; Polarity

Symbol; Switch; Transformer; Chapter 4: Magnets and Magnetic Fields; Magnetic Poles; Magnetic and Nonmagnetic Substances; The Earth as Magnet; Magnetic Lines of Force; Molecular Theory of Magnetism; Strength of a Magnet; Lifting Power of a Magnet; Questions; Chapter 5: Ohm's Law; Statement of Ohm's Law; Analogy of Ohm's Law; Illustrations of Ohm's Law; Ohm's Law and Power; The Ohm's Law Circle; Formulas; Ohm's Law; Power in Watts; Questions; Chapter 6: Capacitors; Capacitance; Capacitance in Series and Parallel Capacitance in Other Than Regular Capacitors Formulas; Questions; Chapter 7: Resistance; Skin Effect; Conductivity; Voltage-Drop Calculation; Measuring Conductors; Questions; Chapter 8: Resistance in Series and Parallel; Resistances in Series; Resistances in Parallel; Series-Parallel Circuits; Questions; Chapter 9: Electrolysis; Terminology; Chemistry of Electrolysis; Electroplating; Corrosion; Questions; Chapter 10: Primary and Secondary Cells; The Voltaic Cell; Primary Cells; Secondary Cells; Questions; Chapter 11: Electromagnetism; Galvanoscope; Solenoids; Questions Chapter 12: Laws Governing Magnetic Circuits Strength of a Magnetic Pole; Intensity of Magnetizing Force; Magnetic Reluctance; Formulas; Questions; Chapter 13: Work, Power, Energy, Torque, and Efficiency; Torque; Prony Brake; Formulas; Questions; Chapter 14: Instruments and Measurements; Voltmeters and Ammeters; Edison Pendulum Ammeter; Battery Gauge; Indicating Wattmeter; Ohmmeters; Thermostats; Thermocouples; Questions; Chapter 15: Insulation Testing; Test Voltages vs. Equipment Ratings; Cables and Conductors; Conductors in Parallel; Effect of Temperature on Insulation Resistance*; Questions Chapter 16: Electromagnetic Induction

Sommario/riassunto

Spend your study time wisely As you advance from student to apprentice to journeyman status, you log a lot of study hours. Make the most of those hours with this fully updated, sharply focused self-study course. It contains everything you need to know about electrical theory and applications, clearly defined and logically organized, with illustrations for clarity and review questions at the end of each chapter to help you test your knowledge.* Understand electron theory and how electricity affects matter * Recognize applications for both alternating and direct current* Compr
