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Nota di contenuto	Front Cover; ELECTRIC MOTORS AND DRIVES; Copyright; CONTENTS; PREFACE; Chapter 1 - Electric Motors - The Basics; 1.INTRODUCTION; 2.PRODUCING ROTATION; 3.MAGNETIC CIRCUITS; 4.TORQUE PRODUCTION; 5.TORQUE AND MOTOR VOLUME; 6.ENERGY CONVERSION - MOTIONAL E.M.F.; 7.EQUIVALENT CIRCUIT; 8. CONSTANT VOLTAGE OPERATION; 9.GENERAL PROPERTIES OF ELECTRIC MOTORS; Chapter 2 - Introduction to Power Electronic Converters for Motor Drives; 1.INTRODUCTION; 2.VOLTAGE CONTROL - D.C. OUTPUT FROM D.C. SUPPLY; 3.D.C. FROM A.C. - CONTROLLED RECTIFICATION; 4.A.C. FROM D.C. - INVERSION; 5.A.C. FROM A.C. 6. INVERTER SWITCHING DEVICES 7.CONVERTER WAVEFORMS, ACOUSTIC NOISE, AND COOLING; Chapter 3 - Conventional D.C. Motors; 1.INTRODUCTION; 2.TORQUE PRODUCTION; 3. MOTIONAL E.M. F.; 4.D.C. MOTOR - STEADY-STATE CHARACTERISTICS; 5.TRANSIENT BEHAVIOR - CURRENT SURGES; 6.FOUR QUADRANT OPERATION AND REGENERATIVE BRAKING; 7.SHUNT AND SERIES MOTORS; 8.SELF-EXCITED D.C. MACHINE; 9.TOY MOTORS; Chapter 4 - D.C. Motor Drives; 1.INTRODUCTION; 2.THYRISTOR D.C. DRIVES - GENERAL; 3. CONTROL ARRANGEMENTS FOR D.C. DRIVES; 4.CHOPPER-FED D.C. MOTOR DRIVES; 5.D.C. SERVO DRIVES; 6.DIGITALLY CONTROLLED DRIVES

Chapter 5 - Induction Motors - Rotating Field, Slip and Torque 1. INTRODUCTION; 2. THE ROTATING MAGNETIC FIELD; 3. TORQUE PRODUCTION; 4. INFLUENCE OF ROTOR CURRENT ON FLUX; 5. STATOR CURRENT-SPEED CHARACTERISTICS; Chapter 6 - Induction Motors - Operation from 50/60Hz Supply; 1. INTRODUCTION; 2. METHODS OF STARTING CAGE MOTORS; 3. RUN-UP AND STABLE OPERATING REGIONS; 4. TORQUE-SPEED CURVES - INFLUENCE OF ROTOR PARAMETERS; 5. INFLUENCE OF SUPPLY VOLTAGE ON TORQUE-SPEED CURVE; 6. GENERATING; 7. BRAKING; 8. SPEED CONTROL; 9. POWER-FACTOR CONTROL AND ENERGY OPTIMIZATION; 10. SINGLE-PHASE INDUCTION MOTORS

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#### Sommario/riassunto

Electric Motors and Drives is intended for non-specialist users of electric motors and drives, filling the gap between maths- and theory-based academic textbooks and the more prosaic 'handbooks', which provide useful detail but little opportunity for the development of real insight and understanding. The book explores all of the widely-used modern types of motor and drive, including conventional and brushless D.C., induction motors and servo drives, providing readers with the knowledge to select the right technology for a given job. The third edition includes additional diagrams and wor

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