

1. Record Nr.	UNINA9910816140103321
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Titolo	Electric motors and drives : fundamentals, types and applications // Austin Hughes and Bill Drury
Pubbl/distr/stampa	Amsterdam, : Elsevier, 2013 Oxford : , : Newnes, , 2013
ISBN	0-08-099368-0 1-299-20199-7
Edizione	[4th ed.]
Descrizione fisica	1 online resource (xi, 436 pages, 8 unnumbered pages of plates) : illustrations (some color)
Collana	Gale eBooks
Disciplina	621.46
Soggetti	Electric motors Electric driving
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
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

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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
