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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Electrical Machine Drives Control: An Introduction; Contents; Preface; Abbreviations and Symbols; 1: Introduction to electrical machine drives control; 1.1 What is an electrical machine drive?; 1.2 Controlled variable speed drives; 1.2.1 DC variable speed drives; 1.2.2 AC variable speed drives; 1.3 Electrical machine drive implementation; 1.4 Controlled electrical drives and energy efficiency; 1.5 The electrical drive as an element of a controlled industrial process; References; 2: Aspects common to all controlled electrical machine drive types 2.1 Pulse width modulation converter electrical motor drive 2.2 Converter interface to power source; 2.3 Fundamental mechanics; 2.4 Basic mechanical load types; 2.5 Proportional-integral-derivative controller in electrical drives; 2.6 The speed, torque, or position control of an electrical drive; 2.7 Control time rates and embedded system principles; 2.8 Per-unit values; 3: The fundamentals of electric machines; 3.1 Energy conversion in electric machines; 3.2 Industrial machine windings; 3.3 Effective winding turns and spatial harmonics; 3.4 Induction machine rotors; 3.5 The damper winding 3.6 AC winding systems 3.7 DC machine windings; 3.8 The brushless DC machine; 3.9 The magnetic circuit of an electric machine; 3.10

Motor voltage, flux linkage, flux, field weakening, and voltage reserve;
3.11 Motors in power-electronic electrical drives; References; 4: The fundamentals of space-vector theory; 4.1 Introduction to the space vector for current linkage; 4.1.1 Mathematical representation of the space vector; 4.1.2 Two-axis representation of the space vector; 4.1.3 Coordinate transformation of the space vector; 4.2 Space-vector equivalent circuits and the voltage-vector equations
4.3 Space-vector model in the general reference frame
4.4 The two-axis model; 4.5 Application of space-vector theory; References; 5: Torque and force production and power; 5.1 The Lorentz force; 5.2 The general equation for torque; 5.3 Power; 5.4 Reluctance torque and co-energy; 5.5 Reluctance torque and the cross-field principle in a rotating field machine; 5.6 Maxwell's stress tensor in the definition of torque; References; 6: Basic control principles for electric machines; 6.1 The control of a DC machine; 6.2 AC machine control basics; 6.3 Vector control of AC motors
6.4 Direct flux-linkage control and direct torque control
6.4.1 The basis of direct torque control; 6.4.2 DFLL implementation; 6.4.3 Shortcomings of direct flux-linkage control; 6.5 Improving DFLL to achieve DTC; 6.5.1 Current model correction; 6.5.2 Stator flux-linkage eccentricity correction; 6.6 Other control principles; References; 7: DC and AC power electronic topologies - modulation for the control of rotating-field motors; 7.1 The thyristor bridge as a power-electronic drive component; 7.2 The cycloconverter; 7.3 The load commutated inverter drive
7.4 Voltage source inverter power stages
