4	n	1	^		_
1	u	v	-,	11	n

1992, □ 5
CONTENTS
Electrodynamics of electrical power devices
Krischuk N.G., Valkovsky Yu.N., Bondar' L.M. Mathematical modelling of electromagnetic
fields and Joule's losses in rail accelerator
Malyarenko A.P. Basis of linear signal model for acoustics-emission diagnostics system 11

Electric energy	parameters conversion
-----------------	-----------------------

Lipkovsky K.A. Supply system variants of two independent toads 18	
Pivnyak G.G., Berkovich E.I., Bokovoi V.N. Single-switch resonant inverters	27
Fediy V.S., Cherednitchenko S.L. Network current analysis of single-phase rect	ifier-capacitor
source of reactive power	
Kurilo I.A., Klimenko A.V. Compensated macromodel of valve element 42	
Samcheleev Yu.P., Potapov V.D. Circuit engineering of pulse supply sources	45

Electromechanical energy conversion

Sokol V.W., Shnalder A.G., Tolkachev E.A. Gas-magnetic rotor suspension of motor bearings
as a self-controllable system 48
Dems M., Rutkovsky Z., Gerasimchuk V.P. Electromagnetic calculation of asynchronous
motors at different calculation methods utilization of magnetizing current, calculation of
current saturation and replacementin rotor winding55
Chigirik A.S. Reliability forecasting of Diesel-electric generator nodes with statistical
splinefunctions application64
Bychkovska-Lipin'ska L. Calculation of natural oscillations of transformer windings on the basis of
three-dimensional mathematical model69
Bespalov L.S., Metetsky V.P., Popova T.V., Yarymbash S.T. Power losses reduction in
transformers tank with the assistance of magnetic shunts of a new desing

	75
Electric power systems and installations	
Volkov I.V., Baranov G.L., Kozurman I.A., Fink A.F. Experimental investig	gation of parallel
operation properties of synchronous generator with a power system throuinductive-capacitive	ugh
converter on a general	
load	81
Vacin C. Va. Sharutin E. V. Investigation of out harmonic reconomics in i	ndustrial namer
Vagin G.Ya., Sharutin F.V. Investigation of sub-harmonic resonances in inetworks	ndustriai power
with longitudinal compensation plants	88
	_
Borodulin M. Yu. Calculation of initial steady state at digital modelling of n	nultisubstation power
transmission of constant	
current	93
Flectrical and magnetic measurements	

Savolyuk A.M. Interaction errors of capacitive measuring level converters
with controllable medium
Scientific and technical information
Krasinsky V.N. Small-sized factory-assembled switch-gear with vacuum switchers 108
Chronicle and information
Seventieth anniversary of Academician of the Academy of Sciences of Ukraine F.B. Grinevich_
111