

1999, □ 1

CONTENTS

Electrodynamics of electrical power devices

BARABANOVA N.V., EMETS Ju.P. Constructive method of a problem solution about an electric

field forming in a conductor with a cylindrical connection on a
boundary_____ 3

ROZOV V.Yu., GETMAN A.V., KILDISHEV A.V. Space harmonic analysis of external magnetic
field

of extended objects in an extended spheroidal coordinate
system_____ 7

BRANSPIZ Yu.A. Magnetic field strength in an operating zone of III-shaped electromagnet_____
12

BARANOV M.I. Electromagnetic effect simulation at a direct lightning stroke into a metal sheathing

of a flying vehicle _____
_____ 16

ZIRKA S.E., MOROZ Yu.I. Magnetic hysteresis simulation on the basis of generalized Madelung

rules (Part I) _____
_____ 22

LUKIN V.V. Statistical characteristics of disturbed directional patterns of multielement arrays _____ 27

Conversion of electric energy parameters

SCHERBAK Ya.V. Pulse-width converter with PWM of a second kind in asymmetry conditions _____ 31

VARETSKY Yu.O. Damping elements parameters of thyristor-reactor circuits of static compensators ____ 35

VOLKOV I.V., AKININ K.P., PLUGATAR A.P., STYAZHKIN V.P., BABENKO A.V. Pulse current

control modes in asynchronous electric
drive _____ 39

SKIDANOV V.M. The features of control application for transport power converters in a function

of torque, power and acceleration of DC traction motors speed
rotation_____ 43

KIRIK V.V. Parameters computation of a self-restorable fuse of a multitime
action_____ 45

Electromechanical energy conversion

AFONIN A.A., GREBENIKOV V.V., TSCHEZHNEVSKY P. Special features of magnetoelectric
disk

electric motors topology_____ 50

MARCHENKO B.G., MYSLOVICH M.V. Power-generating units diagnostics theory on rotatable

nodes deviation and its practical application for Diesel-electric generators (part 3)_____ 59

ANTONOV A.E., PETUKHOV I.S. Identification of a rotor magnetic field of a two-coordinate
electric

motor_____ 64

VERBOVOI A.P., VERBOVOI P.F., SJANOV A.M. Investigation of electromagnetic wave penetration

depth into a massive ferrc magnetic rotor of an asynchronous motor _____
_____ 68

Electrical and magnetic measurements

DUNETS B.V. Errous simulation of measuring function generators with a double-level correction _____ 72

KHOMA V.V. Virtual balancing algorithm of a self-compensating meter of an immittance

components _____
_____ 75

Abstracts

____ 80