

2000, No 1

CONTENTS

Electrodynamics of electrical power devices

DEGTYAREV V.V. A mathematical model of an external magnetic field of an engineering object
_____ 3

LUPIKOV V.S. Increase of the methods efficiency which are used for an electrical equipment
external

magnetic field reduction
_____ 7

BARANOV M.I., BONDINA N.N., KRAVCHENKO V.I. Induced voltages and currents

computation

in communication cables at a direct lightning stroke of their
sheath_____ 14

SINEGLAZOV V.M., MELNICHENKO A.V. A new method of a lightning strike points
determination

of an airplane_____ 18

ZATSEPIN N.N. Vector diagrams of the second and the fourth harmonics of a dynamic
magnetic

permeability_____ 22

Conversion of electric energy parameters

GRIGORENKO V.V., SINITSKY L.A. Circuits analysis algorithm with time constants big
spread_____ 27

NOVSKY V.A. Speed currents balancing in a three-phase four-wire system with non-linear
loads_____ 31

MOSTOVJAK I.V., MOSTOVJAK D.I. Currents and voltages of storage elements of a converter

with the given input and output instantaneous power _____
_____ 36

KHALIKOV V.A., MOZHAROVSKY A.G. Probabilistic characteristics of voltage deviations in public use

networks and their metering in digital systems of an alternating voltage control _____ 39

Electromechanical energy conversion

KONDRATENKO I.P., RASCHEPKIN A.P. Electrical parameters balancing of linear asynchronous

machines _____
_____ 44

MAZURENKO L.I. Transient processes analysis of an asynchronous valve generator excitation with

a storage battery _____
_____ 49

DEGTEV V.G. Invariance of vector diagrams of polyphase windings_____ 52

KLINGER K. A three-phase asynchronous electric drive with high dynamic properties_____ 55

Electrical power systems and installations

ZORIN V.V., TSYGANOVA L.N. Universal mathematical models of distributive power networks_____ 59

SIDOROV A.F. About a "rigidity" of a frequency maintenance in the Interconnected power system

of
Ukraine_____ 62

Electrical and magnetic measurements

KHOMA V.V. Delta-modulation in a parametrical control means of semiconductor structures_____ 65

SURDU M.N., ORNATSKY O.A., KOROTKOV B.V., AKHMADOV A.A., SHOVKUN S.V. A test circuit

structure optimization for electric circuits parameters on an alternating current

70

Discussion

PAMPURO V.I. Problems of a power generation modernization efficiency in the conditions of

a transition to the market _____
_____ 74

In commemoration of the 70th anniversary of G.G. Schastlivy, akademikian of the National Academy

of Sciences of
Ukraine _____
__ 79

Abstracts _____

_____ 80

Information for authors