

1992, □ 4

## CONTENTS

### Electrodynamics of electrical power devices

*Zinchenko T.R., Raschepkin A.P.* Heating of ferromagnetic media by travelling magnetic field

---

3

*Zalozniy V.I., Kolesnichenko A.F., Erkenov N.H., Yuschenko B.A.* Numerical simulation of

velocity field in a liquid phase of metal ingot influencing by electromagnetic forces

---

10

**Electric energy parameters conversion**

*Fediy V.S., Cherednitchenko S.L.* Influence of control pulses phase on initial conditions at

start of single-phase rectifier-capacitor source of reactive power

\_\_\_\_\_ 18

*Sakkos T., Sakkos H.* Electromagnetic compatibility of twelve-pulse converter of alternating

voltage in frequency tripling  
conditions \_\_\_\_\_

25

*Bartosh S.* Method of losses decrease in switching points of semiconductor converters \_\_\_\_\_

3

2

*Zhurakhovsky A.V., Shelepeten T. M., Shkrum V.A.* Complex use of equipment of static

thyristor compensator \_\_\_\_\_

35

*Sidorov V.S., Ambroz V.M., Capanovich V.G., Kondor I.V.* Investigation of transient

processes in static controllable rectifier source of reactive  
power\_\_\_\_\_ 39

## **Electromechanical energy conversion**

*Finkelshtein V.B., Egorov A.B.* Designing of single-phase capacitor-free electric drive with

posistor application\_\_\_\_\_ 44

*Afonin A.A., Beliy P.N., Fursenko S.L.* Magnetic field in systems with high-coerdtive constant  
magnets\_\_\_ 48

*Titko A.I., Shalomygin M.V.* Investigation method of holes reemission of shielding  
shell\_\_\_\_\_ 53

*Bychkovska-Lipin'ska L.* Amplitude-frequency characteristics of converter  
transformer\_\_\_\_\_ 57

*Bolyukh V.F.* Dynamic excitation of cryoresistive windings of electromechanical impact devices

from a capacitive power  
storage\_\_\_\_\_ 61

**Electric power systems and installations**

*Kurenniy E.G., Kolomytsev A.D., Nairn Gol'.* Statistical dynamics of compensation systems of

fault-to-earth current \_\_\_\_\_  
\_\_\_\_\_ 69

*Moskalenko G.A., Zoschenko A.V.* Influence of currents asymmetry on measurement accuracy

of total powers value in a single  
phase \_\_\_\_\_ 75

*Perkhach V.S., Segeda M.S., Skripnik O.I.* Ground in power networks with static thyristor

compensators \_\_\_\_\_ 81

*Nedzelsky I.S.* Static stability analysis of electric power systems at input of a single frequency

of its power network into a mathematical model of power system \_\_\_\_\_  
\_\_\_\_\_ 86

*Blyumovich G.I.* Determination of voltage non-sinusoidality coefficient of computers' power

supply systems

---

91

*Bortsov R.I., Solomchak O.V., Fedoriv M.I.* Mathematical model of steady states analysis of complex closed power networks with several basis nodes \_\_\_\_\_ 97

## Discussions

*Pivnyak G.G., Shkrabets F.P.* Double grounds in three-phase networks of 6 ... 35 kV with

insulated

neutral \_\_\_\_\_

— 102

## Scientific and technical information

*Novskiy V.A.* Automatic balancing controller of three-phase voltage for four-conducting networks

with alternating unbalanced and non-linear loads \_\_\_\_\_

17

