



ISSN 1000-6753

CN 11-2188/TM

半月刊

SEMIMONTHLY

电工技术学报

TRANSACTIONS OF
CHINA ELECTROTECHNICAL SOCIETY



中国电工技术学会主办

2020年 第5期

第35卷 Vol.35 No.5

ISSN 1000-6753



电工技术学报

2020年 第35卷 第5期

目次

磁场调制电机及其理论专题 (特约主编: 程明 教授 赵文祥 教授)

- 919 “磁场调制电机及其理论”专题特约主编寄语
- 921 电机气隙磁场调制行为及其转矩分析.....程明 文宏辉 曾煜 姜永将
- 931 基于磁场调制原理的齿槽转矩研究.....刘家琦 白金刚 郑萍 刘国鹏 黄家萱
- 942 基于精确子域模型的永磁直线同步电机空载磁场解析计算.....王明杰 徐伟 杨存祥 邱洪波 朱建国
- 954 Halbach 阵列磁力变速永磁无刷电机解析计算与设计.....井立兵 龚俊 章跃进 曲荣海
- 963 基于 CE-FEA 和小信号分析快速计算逆变器供电下聚磁式场调制电机中永磁体涡流损耗
.....朱洒 卢智鹏 王卫东 田建 王豪
- 972 电励磁双定子场调制电机的多目标优化设计分析.....李祥林 李金阳 杨光勇 王玉彬 冯兴田
- 983 软磁复合材料-Si 钢组合铁心盘式横向磁通永磁无刷电机.....徐衍亮 崔波 张文晶 薛成勇
- 991 双交替极横向磁通直线电机的优化与设计.....罗俊 寇宝泉 杨小宝
- 1001 轨道交通用次级分段型直线磁通切换永磁电机研究.....曹瑞武 苏恩超 张学
- 1013 基于改进型代理模型优化算法的磁通切换永磁直线电机优化设计.....张邦富 程明 王飒飒 王伟
- 1022 高推力永磁直线作动器及其关键技术综述.....凌志健 赵文祥 吉敬华
- 1036 双定子磁场调制电机及其无位置传感器控制.....罗响 朱莉 郭灿新
- 1046 基于虚拟电阻的永磁同步电机单电流调节器弱磁控制.....李雪 迟颂 刘聪 吴尚
- 1055 基于占空比调制的五相容错永磁游标电机直接转矩控制.....陈浩 和阳 赵文祥 许德志

电机与电器

- 1065 基于自抗扰的高速磁浮列车牵引控制策略.....朱进权 葛琼璇 孙鹏琨 王晓新 张波
- 1075 结构设计对于火药辅助式开断器开断特性的影响.....周煜韬 庄劲武 武瑾 袁志方 张超
- 1083 电磁-永磁复合型接触器数值仿真与控制方法.....赵升 舒亮 吴自然 陈威 许小锋

电力系统

- 1093 含电动汽车充电站的主动配电网二阶段鲁棒规划模型及其求解方法
.....孔顺飞 胡志坚 谢仕炜 杨黎 郑云飞
- 1106 含电压源换流器交直流系统的仿射潮流算法.....杜萍静 杨明 曹良品 翟鹤峰 杨佳峻
- 1118 适用于直流电网的环流式线间直流潮流控制器.....李国庆 边竞 王鹤 王振浩
- 1128 受端电网分层优化切负荷策略.....王增平 朱劲璇 王彤 秦红霞
- 1140 基于事件触发机制的直流微电网多混合储能系统分层协调控制方法.....郭伟 赵洪山

TRANSACTIONS OF CHINA ELECTROTECHNICAL SOCIETY

2020 Vol.35 No.5

Contents

- 921 Analysis of Airgap Field Modulation Behavior and Torque Component in Electric Machines
..... Cheng Ming Wen Honghui Zeng Yu Jiang Yongjiang
- 931 Investigation of Cogging Torque Based on Magnetic Field Modulation Principle
..... Liu Jiaqi Bai Jingang Zheng Ping Liu Guopeng Huang Jiaxuan
- 942 Analytical Calculation of No-Load Magnetic Field in Permanent Magnet Linear Synchronous Motors Based on
an Accurate Subdomain Model Wang Mingjie Xu Wei Yang Cunxiang Qiu Hongbo Zhu Jianguo
- 954 Analytical Calculation and Design of Magnetic Variable Speed Permanent Magnet Brushless Machine with
Halbach Arrays Jing Libing Gong Jun Zhang Yuejin Qu Ronghai
- 963 Fast Calculation of PM Eddy Current Loss in FCFMPM Machine under PWM VSI Supply Based on CE-FEA and
Small-Signal Analysis Zhu Sa Lu Zhipeng Wang Weidong Tian Jian Wang Hao
- 972 Multi-Objective Optimization Analysis of Electric-Excitation Double-Stator Field-Modulated Machine
..... Li Xianglin Li Jinyang Yang Guangyong Wang Yubin Feng Xingtian
- 983 Disk Transverse Flux Permanent Magnet Brushless Motor Based on Soft Magnetic Composite-Si Steel Core
..... Xu Yanliang Cui Bo Zhang Wenjing Xue Chengyong
- 991 Optimization and Design of Dual-Consequent-Pole Transverse Flux Linear Machine
..... Luo Jun Kou Baoquan Yang Xiaobao
- 1001 Investigation of Linear Flux-Switching Permanent Magnet Motor with Segmented Secondary for Rail Transit
..... Cao Ruiwu Su Enchao Zhang Xue
- 1013 Optimal Design of Flux-Switching Permanent Magnet Linear Machine Based on Improved Surrogate-Based
Optimization Algorithm Zhang Bangfu Cheng Ming Wang Sasa Wang Wei
- 1022 Overview of High Force Density Permanent Magnet Linear Actuator and Its Key Technology
..... Ling Zhijian Zhao Wenxiang Ji Jinghua
- 1036 Operation and Sensorless Control of a Dual Stator Flux Modulation Electric Motor Luo Xiang Zhu Li Guo Canxin
- 1046 Flux-Weakening Control with Single Current Regulator of Permanent Magnet Synchronous Motor Based on
Virtual Resistor Li Xue Chi Song Liu Cong Wu Shang
- 1055 Direct Torque Control of Five-Phase Fault-Tolerant Permanent Magnet Vernier Motor Based on Duty Cycle Modulation
..... Chen Hao He Yang Zhao Wenxiang Xu Dezhi
- 1065 Traction-System Research of High-Speed Maglev Based on Active Disturbance Rejection Control
..... Zhu Jinqun Ge Qiongxuan Sun Pengkun Wang Xiaoxin Zhang Bo
- 1075 Effect of Structural Design on Interruption Characteristics of Propellant-Assisted Interrupter
..... Zhou Yutao Zhuang Jinwu Wu Jin Yuan Zhifang Zhang Chao
- 1083 Numerical Simulation and Control Method of Electromagnetic-Permanent Composite Contactor
..... Zhao Sheng Shu Liang Wu Ziran Chen Wei Xu Xiaofeng
- 1093 Two-Stage Robust Planning Model and Its Solution Algorithm of Active Distribution Network Containing Electric
Vehicle Charging Stations Kong Shunfei Hu Zhijian Xie Shiwei Yang Li Zheng Yunfei
- 1106 Affine Power Flow Algorithm for AC/DC Systems with Voltage Source Converter
..... Du Pingjing Yang Ming Cao Liangjing Zhai Hefeng Yang Jiajun
- 1118 A Circulating Current Interline DC Power Flow Controller for DC Grid
..... Li Guoqing Bian Jing Wang He Wang Zhenhao
- 1128 Research on Stratified Optimal Load Shedding Strategy for Receiving End Power Grid
..... Wang Zengping Zhu Shaoxuan Wang Tong Qin Hongxia
- 1140 Coordinated Control Method of Multiple Hybrid Energy Storage System in DC Microgrid Based on
Event-Triggered Mechanism Guo Wei Zhao Hongshan