



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22期

第35卷 Vol. 35 No. 22

ISSN 1000-6753



电工技术学报

2020年 第35卷 第22期

目 次

电工理论

- 4621 电粒子成像方法及其正问题数值研究.....刘 婧 刘国强
4627 基于磁力传动式阵列涡流探头的管道缺陷检测.....段志荣 解社娟 李丽娟 李 骥 陈洪恩等
4636 一种磁悬浮轴承支承刚性转子现场动平衡方法.....黄 威 邓智泉 李克翔 彭 聪

电机与电器

- 4647 不同温度及谐波下硅钢片电磁-力特性与变频电机振动.....陈德志 张玉庸 白保东 宋蒋雄
4657 计及损耗的混合励磁电机建模与硬件在环实时仿真系统.....曹 阳 刘 旭
4666 基于线性变参数模型预测控制的内置式永磁同步电机转速控制器设计.....贾成禹 王旭东 周 凯
4678 考虑交叉饱和效应的变角度方波电压注入永磁同步电机无位置传感器控制
.....吴 春 陈 科 南余荣 魏 春 曾志成
4688 反电动势和凸极率对高效永磁同步磁阻电机稳态特性影响分析.....王 瑾 李 岩 贾建国 井永腾 张佳霖
4699 变压器杂散损耗计算中的局部表面阻抗建模方法.....赵志刚 温 涛
4709 特高压变压器地磁感应电流和无功功率关系的定量分析.....王泽忠 黄天超
4717 低压交流电弧电流零区电压波形特征分析与应用.....郑 昕 单潇洁

电力电子

- 4726 SiC 电机驱动系统传导电磁干扰建模及预测.....段卓琳 张 栋 范 涛
4739 应用于宽输入电压范围的两模式切换型软开关谐振直流变换器.....刘瑞欣 王议锋 韩富强 杨 良 冀睿琳
4750 基于 Class E 谐振电路的隔离型高频 DC-DC 变换器.....管乐诗 施震宇 王懿杰 王 卫 徐殿国
4761 基于可变关断时间断续电流模式的全桥逆变器轻载效率优化方法.....郎天辰 杜士祥 尹 浩 胡海兵

电力系统

- 4771 基于“秩和”近似相等特性的同期线损异常数据辨识方法.....王方雨 刘文颖 陈鑫鑫 王维洲 拜润卿
4784 分布式发电市场化环境下基于价格型需求响应的农村光伏交易模式研究
.....涂青宇 苗世洪 张 迪 李力行 赵 健
4798 基于泰勒-傅里叶变换的电压闪变测量方法.....邝昊云 温 和

高电压与绝缘

- 4807 叶片模拟冰对风力发电机功率特性影响的试验研究.....胡 琴 杨大川 蒋兴良 张石强 董静军
4816 基于无线电干扰时域测量系统的直流单点电晕放电定位方法.....李学宝 吴昊天 马 浩 王振硕

TRANSACTIONS OF CHINA ELECTROTECHNICAL SOCIETY

2020 Vol.35 No.22

Contents

- 4621 Electrical Particles Imaging Method and Numerical Study on the Forward Problem..... Liu Jing Liu Guoqiang
- 4627 Detection of Defects in Pipeline Structures Based on Magnetic Transmission Eddy Current Array Probe
..... Duan Zhirong Xie Shejuan Li Lijuan Li Ji Chen Hongen et al
- 4636 A Filed Dynamic Balancing Method for Rigid Rotor Supported by Magnetic Bearings
..... Huang Wei Deng Zhiquan Li Kexiang Peng Cong
- 4647 Electromagnetic-Force and Vibration of Silicon Steel Sheet and Variable Frequency Motor under
Different Temperature and Harmonic..... Chen Dezhi Zhang Yuyong Bai Baodong Song Jiangxiang
- 4657 Modeling Method for Hybrid-Excited Machine and Hardware-in-Loop Real-Time Simulation System with Accounting for
Loss Calculation..... Cao Yang Liu Xu
- 4666 Design of Interior Permanent Magnet Synchronous Motor Speed Controller Based on
Linear Parameter-Varying Model Predictive Control..... Jia Chengyu Wang Xudong Zhou Kai
- 4678 Variable Angle Square-Wave Voltage Injection for Sensorless Control of PMSM Considering Cross-Saturation Effect
..... Wu Chun Chen Ke Nan Yurong Wei Chun Zeng Zhicheng
- 4688 Analysis of the Influence of Back-EMF and Saliency Ratio on Steady-State Characteristics of
a High Efficiency Permanent Magnet Synchronous Reluctance Motor..... Wang Jin Li Yan Jia Jianguo Jing Yongteng Zhang Jialin
- 4699 Calculation Method of Stray Loss Based on Local Surface Impedance Boundary Modeling Method..... Zhao Zhigang Wen Tao
- 4709 Quantitative Analysis of Geomagnetically Induced Current-Q Relation of UHV Transformer..... Wang Zezhong Huang Tianchao
- 4717 Characteristic Analysis and Application Research of Low Voltage AC Arc Voltage Waveform at the Current Zero
..... Zheng Xin Shan Xiaojie
- 4726 Modeling and Prediction of Electromagnetic Interference in SiC Motor Drive Systems..... Duan Zhuolin Zhang Dong Fan Tao
- 4739 A Two-Mode Soft-Switching Resonant DC-DC Converter for Wide Input Voltage Range Applications
..... Liu Ruixin Wang Yifeng Han Fuqiang Yang Liang Ji Ruilin
- 4750 An Isolated High Frequency DC-DC Converter Based on Class E Resonant Circuit
..... Guan Yueshi Shi Zhenyu Wang Yijie Wang Wei Xu Dianguo
- 4761 Optimizing Method for Light-Load Efficiency of a H-Bridge Inverter Based on
Variable Turn-Off Time Discontinuous Current Mode..... Lang Tianchen Du Shixiang Yin Hao Hu Haibing
- 4771 Abnormal Data Identification of Synchronous Line Loss Based on
the Approximate Equality of Rank Sum..... Wang Fangyu Liu Wenying Chen Xinxin Wang Weizhou Bai Runqing
- 4784 Research on Rural Photovoltaic Trading Pattern Based on Price-Based Demand Response under Marketization Environment of
Distributed Generation..... Tu Qingyu Miao Shihong Zhang Di Li Lixing Zhao Jian
- 4798 Voltage Flicker Measurement Based on Taylor-Fourier Transform..... Kuang Haoyun Wen He
- 4807 Experimental Study on the Effect of Blade Simulated Icing on Power Characteristics of Wind Turbine
..... Hu Qin Yang Dachuan Jiang Xingliang Zhang Shiqiang Dong Jingjun
- 4816 Location Method for DC Single Corona Discharge Point Based on Radio Interference Time Domain Test System
..... Li Xuebao Wu Haotian Ma Hao Wang Zhenshuo