

ISSN 0258-8013

CODEN ZDGXER

中国电机工程学报

旬刊

第 33 卷 第 12 期

Proceedings of the CSEE

THREE TIMES A MONTH

Vol.33 No.12

(特别关注: 电工电机)



4月 下旬
2013
2013-04-25 出版

ISSN 0258-8013



9 770258 801131



中国电机工程学会主办
THE CHINESE SOCIETY FOR ELECTRICAL ENGINEERING

中国电机工程学报

第 33 卷 第 12 期 (总第 455 期) 2013 年 4 月 25 日

目 次

(电工电机)

英文概述一览 (S1—S22)

· 电力电子与电力传动 ·

- 高压大容量串联混合型有源电力滤波器的关键技术 刘健犇, 陈乔夫, 代少君, 何关金 (1)
有源滤波器双滞环空间矢量离散控制方法 王文, 罗安, 徐先勇, 方厚辉, 帅智康, 李洲, 孟金岭 (10)
一种交错控制高增益 ZCT Boost 变换器 罗全明, 闫欢, 支树播, 邹灿, 周维维 (18)
断续导电模式 Buck 变换器双脉冲跨周期调制技术 马正华, 夏建锋, 包伯成, 沙金 (24)
低输入电感电流纹波二次型 Boost PFC 变换器 杨平, 许建平, 董政, 张斐, 张士宇 (32)
一种新型交错并联双向 DC/DC 变换器 陆治国, 祝万平, 刘捷丰, 吴春军, 赵丽丽 (39)
具有功率解耦功能的三端口反激式单级微型光伏逆变器 胡海兵, 黄宵驳, 王万宝, 吴红飞, 邢岩 (47)
三相变流器 LCL 滤波器参数优化新方法 郑昕昕, 肖嵒, 王长宝, 田洋天, 张方华, 姚志垒 (55)
多并网逆变器与电网的谐波交互建模与分析 许德志, 汪飞, 毛华龙, 阮毅, 张巍 (64)
两级式单相逆变器二次纹波电流的抑制与动态特性的改善 祝国平, 阮新波, 王学华, 杨志兵 (72)
带多频段采样观测器的单相逆变器控制 闫士杰, 纪茂新, 黄丽萍, 杨惠惠 (81)
辅助谐振极逆变器缓冲回路能耗最小化改进控制策略 褚恩辉, 毋勐漾 (90)
载波轮换调制在级联 H 桥型 STATCOM 中的应用 戴珂, 徐晨, 丁玉峰, 康勇 (99)
一种新型四象限混合型模块组合多电平变换器 杨晓峰, 林智钦, 郑琼林, 游小杰 (107)

· 电机与电器 ·

- 光纤布喇格光栅传感器应用于电气设备监测的研究进展 李成榕, 马国明 (114)
单边直线感应电动机动态最大推力输出的滑差频率优化控制 邓江明, 陈特放, 唐建湘, 佟来生 (123)
单变频器驱动非耦合两异步电机加权矢量控制 徐飞, 史黎明, 李耀华 (131)
电励磁双凸极电动机三相六拍控制策略研究 刘星, 陈志辉, 朱杰, 张磊, 马小寒 (138)
基于相电感综合矢量法的开关磁阻电机初始位置估计 蔡骏, 邓智泉 (145)
基于有效磁链概念的永磁同步电动机新型定子磁链滑模观测器 周扬忠, 毛洁 (152)

· 电工理论与新技术 ·

- 基于电磁逆问题求解的开关电弧形态重构方法研究 张鹏飞, 张国钢, 杨博宇, 刘婉莹, 耿英三 (159)
一种改进的用于快速傅里叶变换功率谱中的窄带干扰抑制的方法
..... 罗新, 牛海清, 胡日亮, 刘访, 吴炬卓 (167)

· 行业信息 ·

- 2013 年中国电机工程学会直流输电与电力电子专委会学术年会征文启事 (17)
“太阳能并网发电与电力系统交互影响”专题征稿启事 (176)

PROCEEDINGS OF THE CHINESE SOCIETY FOR
ELECTRICAL ENGINEERING
(PROCEEDINGS OF THE CSEE)

Vol.33 No.12 (Ser.455)

Apr. 25, 2013

CONTENTS

(Electrical Engineering and Machines)

Extended Summary (S1~S22)

• Power Electronics and Drives •

- Key Techniques of High-voltage and Large-capacity Series Hybrid Active Power Filters LIU Jianben, CHEN Qiaofu, DAI Shaojun, HE Guanjin (1)
A Dual-hysteresis Space-vector Discrete Control Method for Active Power Filters WANG Wen, LUO An, XU Xianyong, FANG Houhui, SHUAI Zhikang, LI Zhou, MENG Jinling (10)
An Interleaved High Step-up Zero-current-transition Boost Converter LUO Quanming, YAN Huan, ZHI Shubo, ZOU Can, ZHOU Luowei (18)
Dual Pulse Skipping Modulation Technique for Buck Converter Operating in Discontinuous Conduction Mode MA Zhenghua, XIA Jianfeng, BAO Bocheng, SHA Jin (24)
Quadratic Boost Power Factor Correction Converters With Small Input Inductor Current Ripple YANG Ping, XU Jianping, DONG Zheng, ZHANG Fei, ZHANG Shiyu (32)
A Novel Interleaved Parallel Bidirectional DC/DC Converter LU Zhiguo, ZHU Wanping, LIU Jiefeng, WU Chunjun, ZHAO Lili (39)
A PV Micro-inverter Based on Three-port Flyback With Power Decoupling Function HU Haibing, HUANG Xiaobo, WANG Wanbao, WU Hongfei, XING Yan (47)
A New Parameter Optimization Method of LCL Filters in Three-phase Converters ZHENG Xinxin, XIAO Lan, WANG Changbao, TIAN Yangtian, ZHANG Fanghua, YAO Zhilei (55)
Modeling and Analysis of Harmonic Interaction Between Multiple Grid-connected Inverters and the Utility Grid XU Dezhi, WANG Fei, MAO Hualong, RUAN Yi, ZHANG Wei (64)
Suppression of the Second Harmonic Current and Improvement of the Dynamic Performance for Two-stage Single-phase Inverters ZHU Guoping, RUAN Xinbo, WANG Xuehua, YANG Zhibing (72)
A Single-phase Inverter Control With Multi-band Sampling Observers YAN Shijie, JI Maoxin, HUANG Liping, YANG Huihui (81)
A Modified Control Strategy of Loss Minimization in the Snubber Circuit for Auxiliary Resonant Commutated Pole Inverters CHU Enhui, WU Mengyang (90)
The Applications of Carrier Rotation Modulation on Cascaded H-bridges STATCOMs DAI Ke, XU Chen, DING Yufeng, KANG Yong (99)
A Novel Four-quadrant Hybrid Modular Multilevel Converter YANG Xiaofeng, LIN Zhiqin, ZHENG Trillion Q, YOU Xiaojie (107)

• Electric Machines and Apparatus •

- Research and Development of Fiber Bragg Grating Monitoring in Electrical Engineering LI Chengrong, MA Guoming (114)
Optimum Slip Frequency Control of Maglev Single-sided Linear Induction Motors to Maximum Dynamic Thrust DENG Jiangming, CHEN Tefang, TANG Jianxiang, TONG Laisheng (123)
Weighted Vector Control of Uncoupling Two Induction Motors Fed by a Single Inverter XU Fei, SHI Liming, LI Yaohua (131)
Researches on the Three-phase Six-state Control Strategy of Doubly Salient Electro-magnetic Motors LIU Xing, CHEN Zhihui, ZHU Jie, ZHANG Lei, MA Xiaohan (138)
Initial Position Estimation of Switched Reluctance Motors Based on Synthetic Vectors of Phase Inductance CAI Jun, DENG Zhiqian (145)
A Novel Sliding Mode Stator Flux Linkage Estimator Based on Active Flux Principle for Permanent Magnet Synchronous Motors ZHOU Yangzhong, MAO Jie (152)

• Theory and New Technology of Electrical Engineering •

- Research on Spatial Morphology Reconstruction of Switching Electric Arc Based on Solution to the Inverse Electromagnetic Problem ZHANG Pengfei, ZHANG Guogang, YANG Boyu, LIU Wanying, GENG Yingsan (159)
A Modified Method of Suppressing Narrow-band Interference Using Fast Fourier Transform Power Spectrum LUO Xin, NIU Haiqing, HU Riliang, LIU Fang, WU Juzhuo (167)