

全国中文核心期刊
中国科技核心期刊

中国科学引文数据库(CSCD)核心期刊
荷兰《文摘与引文数据库》收录期刊

ISSN 1674-3415
CN 41-1401/TM
CODEN DXBYAZ

电力系统保护与控制

Power System Protection and Control



森源电气

股票代码：002358



模块化预制仓式智能变电站整体方案提供商



集团总部
地址：国家郑州经济技术开发区第三大街北段
森源高科技产业园
邮编：450016
电话：0371-67391111
传真：0371-67391900
网址：www.hnsyec.com

制造基地
地址：河南省长葛市魏武大道南段
河南森源电气股份有限公司
邮编：461500
电话：0374-6108300 6108396
传真：0374-6108369
邮箱：xsscb@hnsyec.com



9 771674 341188

万方数据

许昌开普电气研究院 主办

2018 21

第46卷 第21期 总第519期

电力系统保护与控制

DIANLI XITONG BAOHU YU KONGZHI

第 46 卷第 21 期(总第 519 期) 2018 年 11 月 1 日出版

目 次

理论分析

- 基于改进万有引力搜索算法的住宅区微网优化 吴国庆, 霍伟, 茅靖峰, 等(1)
基于 FOGI 的微网不平衡负载补偿策略研究 周建萍, 王涛, 张纬舟, 等(11)
基于 Copula 函数及 Rosenblatt 变换的含相关性概率潮流计算 王涛, 王淳, 李成豪(18)
基于故障树的含电力电子变电站配电网可靠性分析 胡顺威, 周晖, 从黎, 等(25)

应用研究

- 基于超螺旋滑模控制光伏 MPPT 的实现 李正明, 单晓晨, 徐鹏坤(32)
基于古林法和层次可拓的变压器状态评估 何怡刚, 陈铭, 张大波, 等(38)
基于新型双电压空间矢量调制的准 Z 源六桥臂电压源逆变器 王震, 郭有贵, 郭宇, 等(45)
基于 VSC-HVDC 并网的光伏电站启动控制及优化方法的研究 于小艳, 李国宁(55)
中压配网接线模式的 GA-Pareto 优选模型 李响, 白首华, 付金光, 等(63)
一种含分布式电源的中低压配电网状态估计方法研究 怀全, 候小虎, 何良策, 等(69)
基于虚拟阻抗和锁相环的孤岛检测技术 顾一丰, 邱稳斌, 李艳君, 等(78)
基于低压配网功率和用电量信息的三相不平衡负荷调整 郭兆成, 车建涛, 郭启栋, 等(86)
基于拥塞感知的 ASON 路由算法 胡邦权, 王先培, 简子倪, 等(96)
基于自适应 CEEMD 方法的电能质量扰动检测与分析 胡明, 郭健鹏, 李富强, 等(103)
考虑静态电压稳定的舰船电网多目标故障恢复决策 蒋燕君, 张彦魁, 许森, 等(111)
基于 Kmeans-SVM 的短期光伏发电功率预测 张雨金, 杨凌帆, 葛双治, 等(118)
基于灵敏度分析的直流输电接地极优化选址方法研究 陈庆涛, 田宇, 丁国成, 等(125)
考虑分布式能源的配电网断线定位方法 王玥婷, 梁中会, 牟欣玮, 等(131)

设计开发

- 含微服务的调度自动化系统分布式实时数据库 冯显力, 韦化, 韦洪波, 等(138)
一个用于智能水电厂 IED 的 GOOSE 通信实现设计 孙延岭, 林政润, 曹年红, 等(145)

工程应用

- 基于供电分区的中高压配电网综合评价策略 田春筝, 殷奕恒, 关朝杰, 等(152)
基于配电自动化主站的单相接地故障定位系统设计与应用 王兴念, 张维, 许光, 等(160)
基于和电流回路误动的新防误系列端子研制 陈晓彬, 孙玉彤, 孙旭, 等(168)
基于 EMMDD 局域波分解的网络行波测距方法研究 杜向楠, 杨飞, 郭宁明, 等(175)
基于信息融合的继电保护整定通知单智能决策技术研究 潘佳锋, 朱和剑, 高捷, 等(182)

Power System Protection and Control

(Semimonthly)

Vol. 46 No. 21 (Ser. 519)

November 1, 2018

CONTENTS

Theoretical Analysis

- Optimization allocation of residential districts' micro-grid via improved gravitational search algorithm *WU Guoqing, HUO Wei, MAO Jingfeng, et al(1)*
Research on compensation strategy of unbalanced load of microgrid based on FOGI *ZHOU Jianping, WANG Tao, ZHANG Weizhou, et al(11)*
Probabilistic load flow calculation based on Copula function and Rosenblatt transformation considering correlation among input variables *WANG Tao, WANG Chun, LI Chenghao(18)*
Reliability analysis of distribution network with power electronic substation based on fault tree *HU Shunwei, ZHOU Hui, CONG Li, et al(25)*

Application Research

- Super-twisting sliding mode controller used in photovoltaic system MPPT *LI Zhengming, SHAN Xiaochen, XU Pengkun(32)*
Transformer condition assessment based on A.J.Klee method and extension hierarchy *HE Yigang, CHEN Ming, ZHANG Dabo, et al(38)*
Quasi Z-source six-leg voltage-source inverter based on a new space vector modulation strategy *WANG Zhen, GUO Yougui, GUO Yu, et al(45)*
Research on starting control and optimization method of PV power station based on VSC-HVDC grid connection *YU Xiaoyan, LI Guoning(55)*
GA-Pareto optimization model of mid-voltage distribution network connection mode *LI Xiang, BAI Shouhua, FU Jinguang, et al(63)*
A method of state estimation for middle voltage and low voltage distribution network with distributed generations *HUAI Quan, HOU Xiaohu, HE Liangce, et al(69)*
An islanding detection based on virtual impedance and phase-locked loop *GU Yifeng, QIU Wenbin, LI Yanjun, et al(78)*
Adjustment of three-phase unbalanced load in distribution network based on its historical power data and power consumption *GUO Zhaocheng, CHE Jiantao, GUO Qidong, et al(86)*
Research on ASON routing algorithm based on congestion aware *HU Bangquan, WANG Xianpei, JIAN Zini, et al(96)*
Power quality disturbance detection and analysis based on adaptively complementary ensemble empirical mode decomposition method *HU Ming, GUO Jianpeng, LI Fuqiang, et al(103)*
Multiobjective service restoration decision of shipboard power networks considering static voltage stability *JIANG Yanjun, ZHANG Yankui, XU Sen, et al(111)*
Short-term photovoltaic power forecasting based on Kmeans algorithm and support vector machine *ZHANG Yujin, YANG Lingfan, GE Shuangye, et al(118)*
Optimization method of grounding pole location for HVDC transmission system based on sensitivity analysis *CHEN Qingtao, TIAN Yu, DING Guocheng, et al(125)*
Method of locating disconnection of distribution network considering distributed energy *WANG Yueting, LIANG Zhonghui, MU Xinwei, et al(131)*

Design and Development

- Distributed real-time database for dispatching automation system with micro-services *FENG Xianli, WEI Hua, WEI Hongbo, et al(138)*
Design of GOOSE communication for IED in intelligent hydropower station *SUN Yanling, LIN Zhengrun, CAO Nianhong, et al(145)*

Engineering Application

- Comprehensive evaluation strategy of medium and high voltage distribution network based on power supply division *TIAN Chunzheng, YIN Yiheng, GUAN Chaojie, et al(152)*
Design and application about single-phase grounding fault location system based on distribution automation master station *WANG Xingnian, ZHANG Wei, XU Guang, et al(160)*
Development of new anti misoperation terminals based on misoperation of sum current loop *CHEN Xiaobin, SUN Yutong, SUN Xu, et al(168)*
Research on network traveling wave fault location based on the decomposition of EMM *DU Xiangnan, YANG Fei, GUO Ningming, et al(175)*
Study of intelligent decision making technology for relay protection setting notification based on information fusion *PAN Jiafeng, ZHU Hejian, GAO Jie, et al(182)*