## Power Flow Calculation Method of Large Shipboard Power System (PDF)

《船舶与海洋工程学报》[ISSN:1002-2848/CN:61-1400/f] 期数: 2010年01 页码: 93-98 栏目: 出版日

期: 2010-02-25

Title: Power Flow Calculation Method of Large Shipboard Power System

作者: 兰海; 李久芳; 张殿华

Author(s): Hai Lan\*; Jiu-fang Li; Dian-hua Zhang

College of Automation, Harbin Engineering University, Harbin 150001, China

关键词: power flow method; node voltage method; asynchronous motor; transformer

分类号: -DOI: -

文献标识码: A

摘要: The effect of line voltage drop is considered larger on loads, especially on

asynchronous motor, transformers and other non-linear load parameters in power system of large ships. A novel power flow method based on improved node voltage method is proposed, and a typical ship power system, which has 2 power stations and 10 nodes, with closed-loop design but open-loop operation, is taken as an example.

Simulation results show that the improved power flow calculation method has

achieved higher accuracy and better convergence.

导航/NAVIGATE
本期目录/Table of Contents
下一篇/Next Article
上一篇/Previous Article

工具/TOOLS
引用本文的文章/References
下载 PDF/Download PDF(314KB)
立即打印本文/Print Now
推荐给朋友/Recommend

统计/STATISTICS	
摘要浏览/Viewed	820
全文下载/Downloads	611
评论/Comments	

RSS XML

## 参考文献/REFERENCES

Bulter KL, Sarma NDR (2004). Self-healing reconfiguration for restoration of naval shipboard power systems. *IEEE Transactions on Power Systems*, 190(2), 754-762.

Ji Xin, Zhang Xiaofeng (2007). A power flow calculation algorithm for shipboard power system based on the node voltage method. *Ship Engineering*, 36(5), 132-135.

Kang Jun, Ma Weiming, Fu Lijun, Ye Zhihao, Fan Xuexin (2008). Load flow computing method for shipboard power systems. *Journal of Wuhan University of Technology (Transportation Science&Engineering)*, 32(1), 32-35.

Ma Jianhong, Shen Xiting (2002). Visual C++ program design and software technology foundation. China Water Power Press, Beijing, 188-192.

Wu Jishun, Hou Zhijian (2000). *The load flow calculation methods for shipboard on computer*. Shanghai Jiao Tong University Press, Shanghai, 156-159.

Yang Xiuxia (2004). Research on service restoration of large shipboard power system. Ph.D. thesis, *Navy University of Engineering University*, Wuhan, 23-29.

Zhen Hongbin, Zhuang Jinwu, Zhang Xiaofeng (2004). Research on simulation algorithm of complicated warship power system. *Ship Engineering*, 26(4): 64-67.

Zhuang Jinwu (2000). Research on the calculation methods on stable parameters of the power system of naval ships. *Journal of Naval University of Engineering*, 94(5): 20-24.

备注/Memo: -

更新日期/Last Update: 2010-03-11