

### 目 次

#### 电机部分

- 三峡右岸发电机推力轴承热弹流性能分析.....武中德, 张宏 (1)  
降低大中型异步电动机电磁噪声的槽配合选取方法.....王荀, 邱阿瑞 (5)  
1000MW 汽轮发电机定子线圈槽部内屏蔽结构研究.....顾金等 (10)  
大型汽轮发电机定子绕组端部固定方法.....王玉田, 袁晓红 (15)  
1000MW 超超临界汽轮发电机转子线圈制造技术研究.....董海涛, 孙朋伟 (17)  
基于单相功率频谱分析的感应电机故障诊断.....董涛等 (20)  
平衡块支撑式推力轴承的研究.....范寿孝等 (23)

#### 水轮机及水泵

- 基于 CFD 的灯泡混流式水轮机转轮的水力开发与研究.....宋文武等 (26)  
贯流式水轮机间隙流动模拟技术浅析.....黎辉等 (31)  
大型水轮机转轮立式静平衡工艺比较和分析.....陈烈元 (34)  
向家坝水电站模型试验研究分析.....郭彦峰等 (37)  
白盆珠电站增容改造后出力不足问题的解决.....苗雁, 李任飞 (41)  
水轮机尾水管进入门结构方案与刚强度性能探讨.....陈光辉 (44)

#### 辅机及其他

- 三菱 MEC5230 型励磁系统建模分析.....贾善杰, 吴奎华 (47)  
大型汽轮发电机灭磁能容量仿真研究.....吴龙等 (51)  
励磁功率柜动态均流技术.....许敬涛等 (57)  
基于 PSCAD/EMTDC 的船舶艏侧推起动性能的仿真与分析.....张金男等 (62)

主 编: 李正

主管单位: 哈尔滨电气集团公司

主办单位: 哈尔滨大电机研究所

出版单位: 哈尔滨大电机研究所杂志社

地址: 黑龙江省哈尔滨市香坊区三大动力路 51 号

邮政编码: 150040

电话: 0451-82872723

印刷: 哈尔滨华德印务有限公司

国内订购处: 全国各地邮局

国外发行: 中国国际图书贸易总公司(北京市 399 信箱)

邮发代号: 14—11

国外代号: BM547

Editor-in-Chief: LI Zheng

Responsible Institution: Harbin Electric Corporation

Sponsored by: Harbin Institute of Large Electrical Machinery

Published by: DADIANJI Magazine Office

Address: 51, Sandadongli Road, Xiangfang, Harbin, China

Post Code: 150040

Tel: 86-451-82872723

Overseas Distribution: China International Book Trading Corporation  
(P. O. Box 399, Beijing, China)

Code No: BM547

E-mail: qbzr@hec-china.com

<http://djdj.chinajournal.net.cn>

## CONTENTS

### \* \* \* Electric Machine \* \* \*

Performance Analysis of Thrust Bearing for Three Gorges Generator.....	WU Zhong-de etc. (1)
The Method of Slot Combination Choice for Electromagnetic Noise Reduction in Large-sized and Medium-sized Asynchronous Motors.....	WANG Xun etc. (5)
Research of Internal Shielding Structure for Stator Coil of 1000 MW Turbogenerator.....	GU Jin etc. (10)
Discussion on Fixing Methods of Large Turbogenerator Stator Endings Overhang.....	WANG Yu-tian etc. (15)
Rotor Coil Manufacturing Technology for 1000MW Ultra-supercritical Turbogenerator.....	DONG Hai-tao etc. (17)
Induction Motor Fault Diagnosis based on Single-phase Power Spectrum Analysis.....	DONG Tao etc. (20)
Research of the Thrust Bearing with Balacing Plate Support.....	FAN Shou-xiao etc. (23)

### \* \* \* Hydraulic Turbine \* \* \*

The Hydraulic Development and Research of Bulb Francis Turbine Runner Based on CFD.....	SONG Wen-wu etc. (26)
The Analysis of Gap Simulation Technology on Tubular Turbine.....	LI Hui etc. (31)
Comparison and Analysis of Vertical Static Balancing Methods for Large Hydroturbine Runner.....	CHEN Lie-yuan (34)
The Model Test Analysis of Xiangjiaba Hydraulic Power Station.....	GUO Yan-feng etc. (37)
Solution of Output Underecapacity after Rehabilitation of Baipen Zhu Power Station.....	MIAO Yan etc. (41)
Research on the Structure System and Strength Property of Draft Tube Manhole.....	CHEN Guang-hui (44)

### \* \* \* Auxiliary & Others \* \* \*

Analysis about Modeling Excitation System of Mitsubishi MEC5230.....	JIA Shan-jie etc. (47)
A De-excitation Capacity Simulation of Large-scale Turbogenerator.....	WU Long etc. (51)
Technology of Intelligent Current Sharing of Rectifiers for Excitation System.....	XU Jing-tao etc. (57)
Modeling of Bow Thruster Starts-up's Character Based on PSCAD/EMTDC.....	ZHANG Jin-nan etc. (62)