

工业环保

Industry and Environment Protection



总体介绍 General Introduction

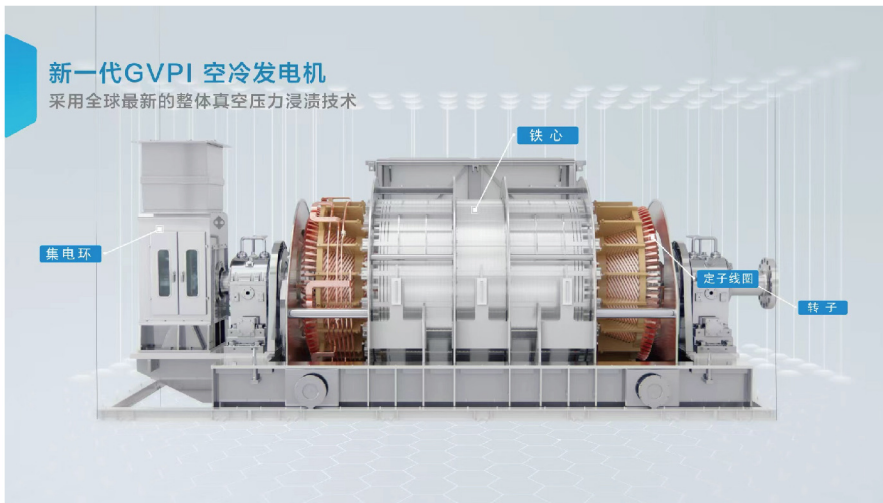
工业环保作为工厂战略转型的重要组成部分，是工厂持续稳定健康发展的支柱产业之一，主要聚焦于工业和环保领域综合电力产业技术，专注于研发灵活便捷的系列化GVPI发电产品 + 综合解决方案，为用户提供更加经济环保的发电成套设备和服务。

As an important part of company's strategic transformation, the industry and environment protection sector is one of the pillar industries supporting company's sustainable, stable and healthy development. Industry and Environment Protection Business Unit focuses on integrated power industry technology in industry and environment protection fields, concentrates on developing convenient and flexible GVPI generator products and comprehensive solutions, and provides customers with more economical and environmentally friendly complete power generation equipment and service.

产品系列 Product Series

工业环保板块产品采用先进的设计平台，全数字化设计和工艺仿真，设计效率高，有效消除设计风险；同时先进的智能制造技术可提高生产效率，降低质量分散性，旨在为客户提供优质的产品。

Advanced design platform, full-digital design and process simulation are adopted for products from industry and environment protection sector. With high design efficiency, design risks are effectively eliminated. At the same time, advanced intelligent manufacturing technology is adopted to improve production efficiency and reduce quality dispersion, aiming to provide customers with high-quality products.

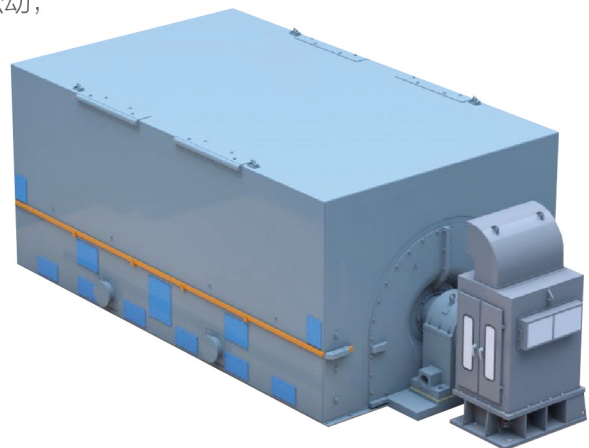


50Hz or 60Hz	
200MW机型	~220MW
180MW机型	~190MW
150MW机型	~165MW
130MW机型	~140MW
120MW机型	~125MW
100MW机型	~110MW
80MW机型	~85MW
70MW机型	~76MW
60MW机型	~65MW
50MW机型	~55MW
45MW机型	~48MW
40MW机型	~43MW
35MW机型	~38MW
30MW机型	~33MW
25MW机型	~27MW
20MW机型	~22MW
15MW机型	~16MW
10MW机型	~12MW

技术特点 Technical Features

- 定子机座采用上下哈弗结构；
- 定子线圈采用全球最先进GVPI技术，结构整体性好，绝缘性能优异，抗冲击能力强；
- 定子出线采用铜排结构，出线方式布置灵活；
- 定子铁心采用全补偿、抗蠕变铁心结构，杜绝铁心松动；
- 励磁方式可灵活选用静态或无刷。

- The stator frame adopts an upper and lower half structure;
- The stator coils adopt the world's most advanced GVPI technology, with good structural integrity, excellent insulation performance and strong impact resistance;
- The stator main terminals adopt copper bar structure, with customized arrangement;
- The stator core adopts a fully compensated and creep resistant core structure to prevent loosening of the core;
- The excitation method can be selected from static or brushless.



智能制造 Intelligent Manufacturing

采用先进的智能制造技术，全面提升空冷发电机产品制造可靠性，确保产品全生命周期质量稳定。

Advanced intelligent manufacturing technology is adopted to comprehensively improve manufacture reliability of air-cooled generator products and ensure stable quality throughout the product life cycle.

定子铁心自动叠装系统 Automatic Stacking System of Stator Core

质量提升

Quality Improvement

充分利用机器人的稳定性优势，提升定子铁心各项指标
Fully utilize the stability advantage of the robot to improve various indicators of the stator core.

效率提升

Efficiency Improvement

叠装效率大幅提升，单台工期大幅缩短，保证交货周期。
The stacking efficiency has been greatly improved, and the manufacture period of single unit has been greatly shortened, ensuring delivery cycle.



转子线圈自动化生产线 Automatic Production Line for Rotor Coils

质量提升

Efficiency Improvement

产品质量可靠性达到100%，加工差错率为零。
The product quality reliability reaches 100%, and the processing error rate is zero.

效率提升

Efficiency Improvement

生产效率提高约25%，保证交货周期。
Improve production efficiency by about 25% to ensure delivery time.



全球最新的GVPI绝缘体系和制造设备

The world's latest GVPI insulation system and manufacturing equipment

GVPI车间



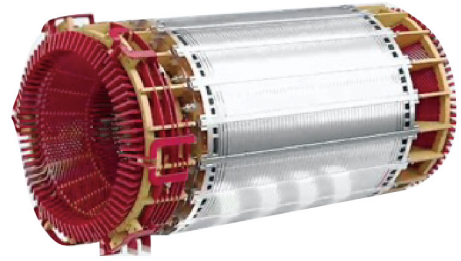
上海电气电站设备有限公司发电机厂
Shanghai Electric Power Generation Equipment Co., Ltd. Generator Plant

产品优势 Product Advantages:



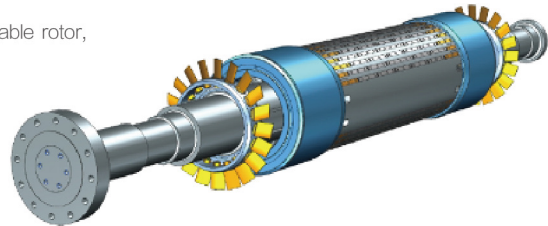
性能优异 Excellent Performance

- 高效率：定转子高效通风冷却，效率高、出力裕度大
- 高可靠：稳定免维护的定子、安全可靠的转子，适应频繁启停
- High efficiency: with efficient ventilation and cooling system of stator and rotor, high efficiency and large output margin be assured.
- High reliability: stable and maintenance-free stator, safe and reliable rotor, suitable for frequent startup and shutdown.



运维方便 Convenient operation and maintenance

- 定子终身免维护
- 10年免抽转子大修
- 可配置智能监测与诊断
- Lifetime maintenance free stator
- 10 years withdraw-free rotor overhaul
- Configurable intelligent monitoring and diagnosis



典型项目业绩 Typical Project Performance

上海松江天马 垃圾发电项目

Shanghai Songjiang
Tianma Project

机组型号 QF-60-2
Generator Type

投运时间 2021
Operation Time

额定出力 60MW
Rated Output

励磁方式 无刷励磁
Brushless Brushless Excitation



铜陵泰富 煤气蒸汽 综合利用项目

Tongling Taifu Gas and
Steam Comprehensive
Utilization Project

机组型号 QF-80-2
Generator Type

投运时间 2022
Operation Time

额定出力 80MW
Rated Output

励磁方式 静态励磁
Brushless Static Excitation



重庆万州九龙园 热电联产项目

Chongqing Wanzhou
CHP Project

机组型号 QF-100-2
Generator Type

投运时间 2022
Operation Time

额定出力 100MW
Rated Output

励磁方式 静态励磁
Brushless Static Excitation

